Initial Study

# Kawana Springs Community Park Master Plan

Prepared by

City of Santa Rosa

In Consultation with

DAVID J. POWERS & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

April 2019

# Notice of Intent to Adopt a Mitigated Negative Declaration

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**To:** Public Agencies, Interested Parties, and Sonoma County Clerk

**Project Title:** Kawana Springs Community Park Project

**Lead Agency:** City of Santa Rosa Recreation and Parks Department

**Contact:** Jen Santos, Deputy Director
City of Santa Rosa
Recreation and Parks Department
55 Stony Point Road
Santa Rosa, CA 95401
Contact: jsantos@srcity.org

**Review Period:** April 10, 2019 to May 9, 2019

In accordance with the State CEQA Guidelines, the City of Santa Rosa Parks & Recreation Department has prepared this notice to inform agencies and interested parties that it is releasing an Initial Study and Proposed Mitigated Negative Declaration (IS/Proposed MND) for the City's Kawana Springs Community Park Project.

**Project Description and Location**

The proposed project would develop an approximately 19.2-acre site located at the corner of Kawana Springs Road and Meda Avenue in the southeast quadrant of the City of Santa Rosa. The proposed park includes a fitness course, community garden, half basketball court, sand volleyball court, outdoor table tennis court, pump track, dog park, bathrooms, bocce court, open turf, gathering pavilion, picnic areas, children's play area, parking, and a paved trail adjacent to Kawana Springs Creek. A clear span pedestrian bridge is proposed over riparian habitat and Kawana Springs Creek on the northeast corner of the site.

**Providing Comments**

A 30-day review period will extend from April 10, 2019 to May 9, 2019. The IS/Proposed MND will be available for public review online at https://srcity.org/2448/Park-Projects, and at the following locations:

- City Recreation and Parks Department, 55 Stony Point Road,
- Sonoma County Clerk-Recorder Office, 585 Fiscal Drive, Room 103

Agencies and interested parties may provide written comments on the IS/Proposed MND for the project. Comments may be directed to the attention of Ms. Jen Santos at 55 Stony Point Road, Santa Rosa, CA 95401.

After the review period closes, the Santa Rosa City Council will consider a recommendation to adopt the IS/Proposed MND for the project during a regularly scheduled public meeting, tentatively scheduled for August 6, 2019. We encourage you to check the City Council webpage to confirm the date and time of the City Council meeting at the following website address: http://www.srcity.org/1322/City-Council

Any changes to the public meeting date and other project-related updates will be posted on the Recreation and Parks Department website at the following link: https://srcity.org/2448/Park-Projects.

# MITIGATED NEGATIVE DECLARATION

| | |
|---|---|
| **CIRCULATION PERIOD** | 4/10/2019 to 5/9/2019 |
| **PROJECT NAME** | Kawana Springs Community Park Project |
| **PROJECT LOCATION** | The approximately 19.2-acre project site is located at the corner of Kawana Springs Road and Meda Avenue in the southeast quadrant of the City of Santa Rosa. |
| **PROJECT PROPONENT** | City of Santa Rosa Recreation and Parks Department |
| **CITY CONTACT** | Jen Santos, Deputy Director<br>City of Santa Rosa<br>Recreation and Parks Department<br>55 Stony Point Road<br>Santa Rosa, CA 95401 |
| **PROJECT DESCRIPTION** | The project proposes to construct a community park between Kawana Springs Road and Kawana Terrace in Santa Rosa. The site is bisected by Kawana Springs Creek and contains three existing contiguous wetland mitigation areas for the Kawana Springs subdivision project that fill with water during rain events and drain into Kawana Springs Creek when inundated. The proposed project would develop an approximately 19.2-acre site with a park that includes a fitness course, community garden, half basketball court, sand volleyball court, outdoor table tennis court, pump track, dog park, bathrooms, bocce court, open turf, gathering pavilion, picnic areas, children's play area, parking, and a paved trail adjacent to Kawana Springs Creek. A clear span pedestrian bridge is proposed over riparian habitat and Kawana Springs Creek on the northeast corner of the site. |

**DETERMINATION**

In accordance with the City of Santa Rosa's procedures for compliance with the California Environmental Quality Act (CEQA), the City has conducted an Initial Study to determine whether the proposed project could have a significant effect on the environment. On the basis of that study, the City makes the following determination:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION is hereby adopted.

☒ Although the project, as proposed, could have a significant effect on the environment, there will not be a significant effect on the environment in this case

because mitigation measures have been added to the project and, therefore, a MITIGATED NEGATIVE DECLARATION is hereby adopted.

The initial study includes all relevant information regarding the potential environmental effects of the project and confirms the determination that an EIR is not required for the project. In addition, the following mitigation measures have been incorporated into the project:

**Biological Resources**

**MM BIO-1.1** A qualified biologist shall conduct a roost assessment survey within trees located on the project site. The survey will assess use of suitable trees for roosting as well as potential presence of bats. If the biologist finds no evidence of, or potential to support bat roosting, no further measures are recommended. If evidence of bat roosting is present, additional measures described below shall be implemented:

- If evidence of bat roosting is discovered during the pre-construction roost assessment and construction is planned August 1 through February 28 (outside the bat maternity roosting season), a qualified biologist shall implement passive exclusion measures to prevent bats from re-entering trees. After sufficient time to allow bats to escape and a follow-up survey to determine if bats have vacated the roost, construction may continue and impacts to special-status bat species will be avoided.
- If a pre-construction roost assessment discovers evidence of bat roosting in trees during the maternity roosting season (March 1 through July 31), and determines maternity roosting bats are present, demolition of maternity roost trees will be avoided during the maternity roosting season or until a qualified biologist determines the roost has been vacated.

**MM BIO-2.1:** Prior to, and during construction on the site, the project will implement the following protection measures for California red-legged frog (CRLF):

- All workers will receive a worker environmental awareness training program describing CRLF, its status, and penalties for take.
- Work buffers will be observed around CRLF if any are detected, and a designated project biologist will be contacted to document the observation and recommend additional measures if deemed necessary.

- Any trenches or pipes will be covered or capped overnight and BMPs will be constructed of natural materials that will not entrap wildlife.
- If construction personnel observe a dead or injured listed species or if a listed species is killed or injured during construction-related activities, the worker will immediately report the incident to the service-approved biologist and the USFWS will be notified within 24-hours of the incident.
- No ground disturbance work will occur within 24 hours of rain events that generate greater than 0.25-inch of accumulated precipitation or during rain events predicted to accumulate 0.25-inch of precipitation.

**MM BIO-3.1** Prior to, and during construction on the site, the project will implement the following protection measures for Foothill yellow-legged frog (FYLF):

- Work within 100 feet of any streams, ponds, or riparian areas will be limited to the dry season (April 1 to October 31) to the extent feasible.
- No work within the bed and banks of Kawana Springs Creek will occur.
- If work must occur outside of the dry season (November 1 to March 31), pre-construction surveys will be conducted within five days of the start of initial project work within areas that may support FYLF. These surveys will investigate for the presence of all life stages (adults, subadults, tadpoles, or egg masses). If the species is detected, a qualified biologist will be present during work within 100 feet of top of bank to ensure prevention of take of the species under the CESA.
- Any personnel involved in construction activities will receive worker environmental educational program training from a qualified biologist in the identification, life history, habitat requirements for the species, status of the species, and receive instructions on what to do if the species is encountered in or near the work area.

**MM BIO-4.1** A habitat mitigation and monitoring plan (HMMP) would be developed that will provide details on how to replace trees to compensate for removal of riparian trees. Replacement plantings shall be sited in non-native annual grassland habitat adjacent to valley oak riparian woodland with the intention of filling in gaps in existing riparian

woodland habitat, and/or expanding the extent of riparian habitat within the project area. The Plan shall include: 1) a plant palette of species/quantity riparian species to be planted; 2) approximate area of temporary and permanent riparian impacts; 3) a map showing restoration locations, area dimensions, and riparian enhancement methods; and 5) performance standards, monitoring and reporting programs, and corrective actions to be taken when enhancement measures do not meet performance standards.

**MM BIO-5.1** If ground disturbance or vegetation removal is initiated in the non-breeding season (September 1 through January 31), no pre-construction surveys for nesting birds are required and no adverse impact to birds would result.

**MM BIO-5.2** If ground disturbance or removal of vegetation occurs in the breeding bird season (February 1 through August 31); pre-construction surveys shall be performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, temporary no-work buffers shall be placed around active nests to prevent adverse impacts to nesting birds. Appropriate buffer distance shall be determined by a qualified biologist and is dependent on species, surrounding vegetation, and topography. Once active nests become inactive, such as when young fledge the nest or the nest is subject to predation, work shall continue in the bugger area and no adverse impact to birds will result.

**Cultural Resources**

**MM CUL-1.1** Any construction work conducted within 50 feet of the mapped archaeological resource shall be monitored by a qualified archaeologist and Native American monitor from culturally affiliated Tribe(s).

**MM CUL-1.2** To adequately cap the archaeological resource, fill and plants shall be added to open areas to protect the uncapped portions of the archaeological site. Construction drawings for the park and trail, including landscape plans, shall be reviewed by a qualified archaeologist and Native American monitor. A qualified archaeologist and Native American monitor shall actively be involved with hand excavating the holes for planting plants. Any obsidian encountered should be subjected to obsidian hydration analysis and visual sourcing, allowing documentation of the use of the archaeological resource.

**MM CUL-1.3** Any proposed improvements that would require excavation into native soils (approximately two to four feet below grade) within 100 feet of the dripline of trees along the south side of Kawana Springs Creek would require presence/absence exploration prior to issuance of grading permits; the plan for such shall be prepared in consultation with culturally affiliated Tribe(s).

**MM CUL-1.4** If evidence of an archaeological site or other suspected cultural resource as defined by CEQA Guideline Section 15064.5, including darkened soil representing past human activity ("midden"), that could conceal material remains (e.g., worked stone, worked bone, fired clay vessels, faunal bone, hearths, storage pits, or burials) is discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the Director of Recreation and Parks and culturally affiliated Tribe(s) shall be notified. The project sponsor shall hire a qualified archaeologist and Native American monitor from the culturally affiliated Tribe(s) to conduct a field investigation. The Director of Recreation and Parks shall consult with culturally affiliated Tribe(s) and the archaeologist to assess the significance of the find. Impacts to any significant resources shall be mitigated to a less than significant level through avoidance, data recovery, or other methods consistent with the Secretary of the Interior's Standards for Archaeological documentation and determined adequate by a qualified archaeologist and through consultation with culturally affiliated Tribe(s). Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-J) form and filed with the NWIC.

**MM CUL-1.5** If archaeological resources are identified, a final report summarizing the discovery of cultural materials shall be submitted to the Director of Recreation and Parks and culturally affiliated Tribe(s) prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented and its results, including a description of the monitoring and testing program, a list of the resources found and conclusion, and a description of the disposition/curation of the resources.

**MM CUL-2.1** *Unique Paleontological and/or Geologic Features and Reporting*. Should a unique paleontological resource or site or unique geological feature be identified at the project site during any phase of construction, all ground disturbing activities within 25 feet shall cease and the Director of Recreation and Parks notified immediately. A qualified paleontologist shall evaluate the find and prescribe mitigation measures to reduce impacts to a less than significant level. Mitigation measures could include collection, recordation and analysis of any significant materials. The identified mitigation measures shall be implemented. Work may proceed on other parts of the project site while mitigation for paleontological resources or geologic features is carried out. Upon completion of the paleontological assessment, a report shall be submitted to the City and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

**MM CUL-3.1** *Human Remains.* If human remains are discovered at any project construction site during any phase of construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the Director of Recreation and Parks and the Sonoma County coroner shall be notified immediately, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. Further, consistent with Public Resources Code 5097.98(b), human remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains, and the Most Likely Descendant (MLD) shall be notified. Within 48 hours of notification, the MLD may inspect the site of discovery and make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98. The project sponsor shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the City and Most Likely Descendant, including methods for avoidance, excavation, and/or removal of the human remains. The City of Santa Rosa shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of State law, as set forth

in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The City of Santa Rosa shall implement approved mitigation before the resumption of ground-disturbing activities within 100 feet of where the remains were discovered.

**Noise and Vibration**

**MM NV-1.1** The City will incorporate the following practices into the construction documents to be implemented by the project contractor:

- Maximize the physical separation between noise generators and noise receptors. Such separation includes, but is not limited to, the following measures:
  - Locate stationary equipment to minimize noise impacts on the community;
  - Minimize backing movements of equipment;
- Use quiet construction equipment whenever possible and properly maintained and muffled internal combustion engine-driven construction equipment;
- Impact equipment (e.g., jack hammers and pavement breakers) shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools.
- Compressed air exhaust silencers shall be used on other equipment.
- Prohibit unnecessary idling of internal combustion engines.
- The City will designate a “disturbance coordinator” for construction activities. The coordinator would be responsible for responding to any local complaints regarding construction noise and vibration. The coordinator would determine the cause of the noise or vibration complaint and would implement reasonable measures to correct the problem.
- The construction contractor shall send advance notice in conjunction with the City of Santa Rosa Recreation and Parks Department to neighborhood residents within 300 feet of the project site regarding the construction schedule and including the telephone number for the disturbance coordinator at the construction site.

DEPUTY DIRECTOR 4.4.19

*Signature* *Title* *Date*

*Adopted by City Council, Attested by*
*Director of Recreation and Parks*
*(signed after MND has been approved)*

*Title* *Date*

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# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AB | Assembly Bill |
| ABAG | Association of Bay Area Governments |
| BAAQMD | Bay Area Air Quality Management District |
| BMP | Best Management Practice |
| Cal Fire | California Department of Forestry and Fire Protection |
| CalEPA | California Environmental Protection Agency |
| Cal/OSHA | California Division of Occupational Safety and Health |
| CalRecycle | California Department of Resources Recycling and Recovery |
| CARB | California Air Resources Board |
| CBC | California Building Standards Code |
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CMP | Congestion Management Program |
| CNEL | Community Noise Equivalent |
| CRHR | California Register of Historical Resources |
| CRLF | California Red-legged frog |
| dB | Decibel |
| DNL | Day/Night Average Sound Level |
| DPM | Diesel particulate matter |
| DTSC | Department of Toxic Substances Control |
| EIR | Environmental Impact Report |
| EPA | United States Environmental Protection Agency |
| FEMA | Federal Emergency Management Agency |
| FIRM | Flood Insurance Rate Maps |
| FMMP | Farmland Mapping and Monitoring Program |
| FYLF | Foothill yellow-legged frog |
| GHG | Greenhouse gas |
| ITE | Institute of Transportation Engineers |
| LID | Low Impact Development |
| LOS | Level of service |
| MBTA | Migratory Bird Treaty Act |
| MND | Mitigated Negative Declaration |
| MRP | Municipal Regional Stormwater NPDES Permit |

| | |
|---|---|
| MT | Metric tons |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NFIP | National Flood Insurance Program |
| NPDES | National Pollutant Discharge Elimination System |
| NOD | Notice of Determination |
| NOI | Notice of Intent |
| PM | Particulate matter |
| RCRA | Resource Conservation and Recovery Act |
| RWQCB | Regional Water Quality Control Board |
| SB | Senate Bill |
| SWPPP | Storm Water Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TAC | Toxic Air Contaminant |
| USACE | United States Army Corps of Engineers |
| USFWS | United States Fish and Wildlife Service |

# SECTION 1.0 INTRODUCTION

## 1.1 PURPOSE OF THE INITIAL STUDY

The City of Santa Rosa, as the Lead Agency, has prepared this Initial Study for the Kawana Springs Community Park in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §§15000 et. seq.) and the regulations and policies of the City of Santa Rosa, California.

The project proposes to construct a community park facility on approximately 19.2 acres of undeveloped land bisected by Kawana Springs Creek. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project [CEQA Guidelines Section 15063(c)].

## 1.2 PUBLIC REVIEW PERIOD

Publication of this Initial Study marks the beginning of a 30-day public review and comment period. During this period, the Initial Study will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this Initial Study during the 30-day public review period should be sent to:

Jen Santos
City of Santa Rosa
Recreation and Parks Department
55 Stony Point Road
Santa Rosa, CA 95401
Contact: jsantos@srcity.org

## 1.3 CONSIDERATION OF THE INITIAL STUDY AND PROJECT

Following the conclusion of the public review period, the Santa Rosa City Council will consider the adoption of the Initial Study and Mitigated Negative Declaration (MND) for the project at a regularly scheduled meeting. The Santa Rosa City Council shall consider the Initial Study and MND together with any comments received during the public review process. Upon adoption of the MND, the City may proceed with project approval actions.

## 1.4 NOTICE OF DETERMINATION

If the project is approved, the City of Santa Rosa will file a Notice of Determination (NOD) with the Sonoma County Clerk-Recorder within five working days or project approval. The NOD will be available for public inspection at the Sonoma County Clerk-Recorder's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the project approval under CEQA (CEQA Guidelines Section 15075(g)).

# SECTION 2.0 PROJECT INFORMATION

## 2.1 PROJECT TITLE

Kawana Springs Community Park Master Plan

## 2.2 LEAD AGENCY CONTACT

Jen Santos
Deputy Director
City of Santa Rosa Recreation and Parks Department
55 Stony Point Road
Santa Rosa, CA 94501

## 2.3 PROJECT APPLICANT

None

## 2.4 PROJECT LOCATION

The approximately 19.2-acre project site is located at the corner of Kawana Springs Road and Meda Avenue in the southeast quadrant of the City of Santa Rosa. The location of the project site is shown on Figures 2.0-1, 2.0-2, and 2.0-3.

## 2.5 ASSESSOR'S PARCEL NUMBERS

APN #s: 044-510-013, 044-430-031, 044-430-032, 044-410-052, and 044-380-098

## 2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT

General Plan: The project site is designated as *Parks and Recreation*.

Zoning: The project site is zoned as *Planned Development* (PD).

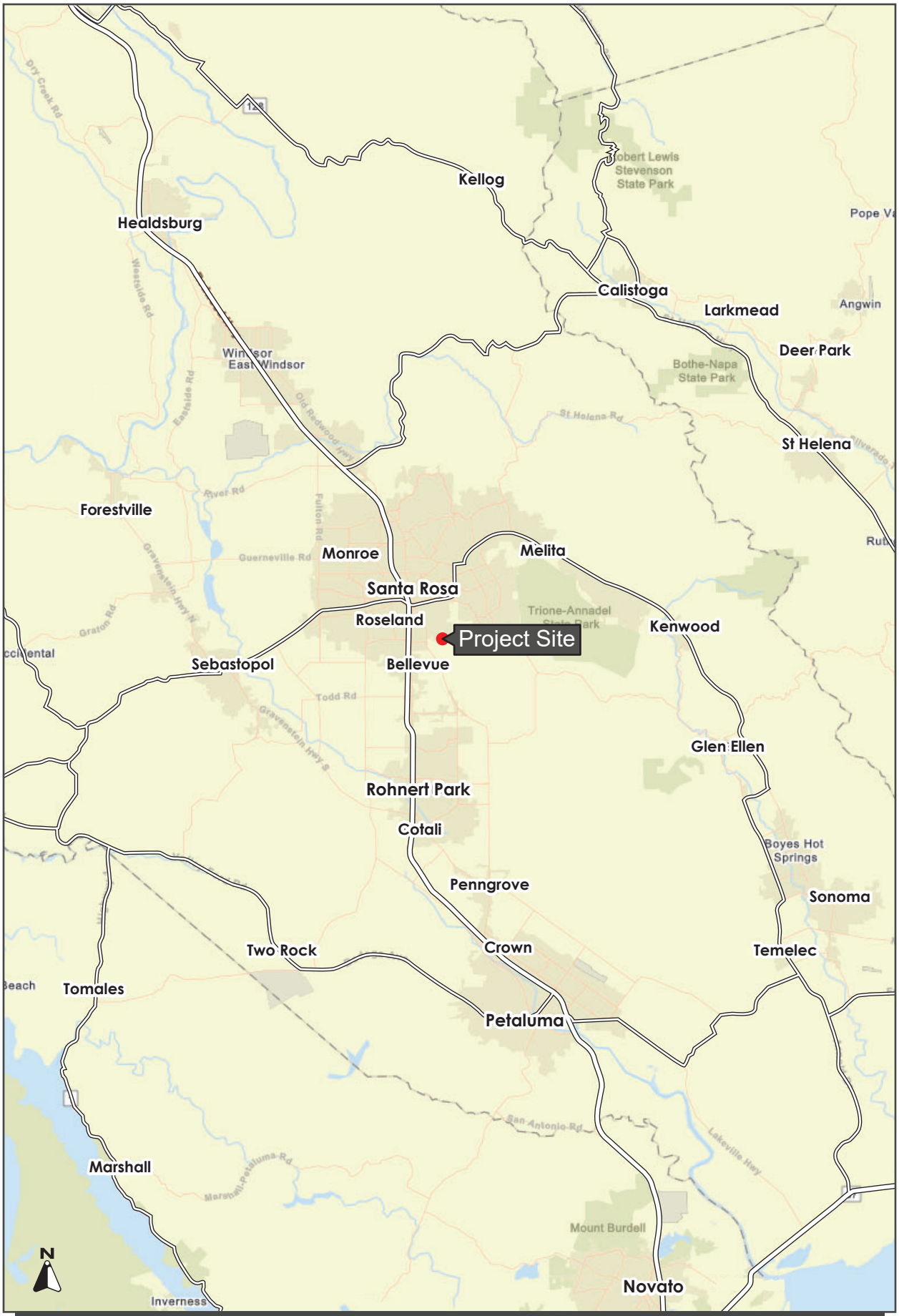
## 2.7 SANTA ROSA PLAIN CONSERVATION STRATEGY

The project site is located within the boundaries of the Santa Rosa Plain Conservation Strategy area. In 2005, the Santa Rosa Plain Conservation Strategy Team, consisting of representatives of state and federal agencies including U.S. Fish & Wildlife Service (USFWS), California Department of Fish & Game, now California Department of Fish and Wildlife (CDFW), U.S. Environmental Protection Agency, and U.S. Army Corps of Engineers, along with other interested agricultural, environmental and private landowner stakeholders, developed a Conservation Strategy. The Conservation Strategy establishes a long-term program to offset adverse environmental effects of future development on the Santa Rosa Plain and surrounding areas, with the objective of conserving protected species and contributing to their recovery. In doing so, the Conservation Strategy seeks to mitigate harm to protected species in a manner that minimizes interference with the rights of public and private property owners.

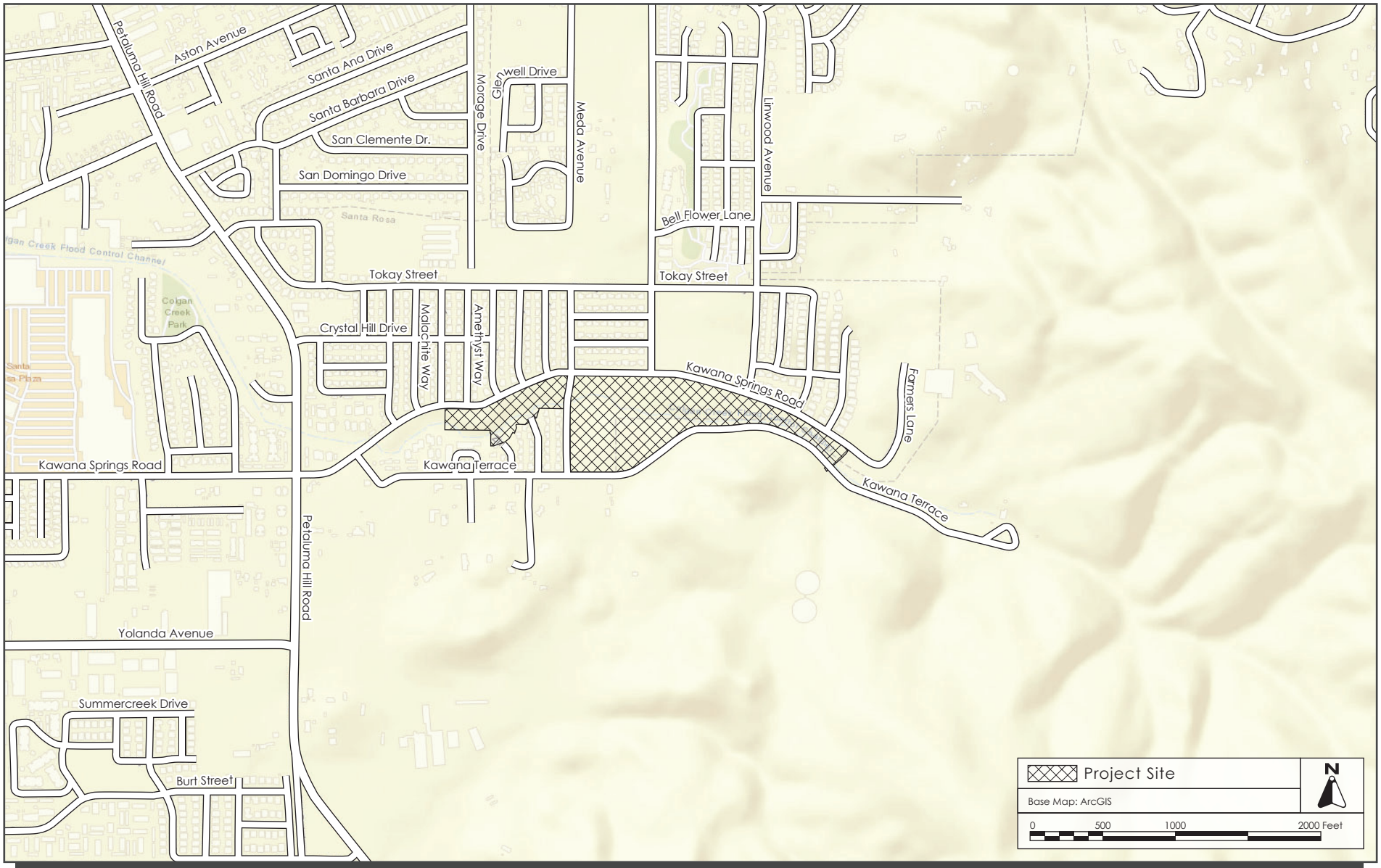
## 2.8 PROJECT-RELATED APPROVALS, AGREEMENTS, AND PERMITS

Approvals and/or permits required for the project may include, but are not limited to, the following:

- Tree Permit
- Grading Permit
- Building Permit
- Fish and Game Code section 1602 Streambed Alteration Agreement (CDFW)




REGIONAL MAP | FIGURE 2.0-1




VICINITY MAP

FIGURE 2.0-2


AERIAL PHOTOGRAPH AND SURROUNDING LAND USES | FIGURE 2.0-3

# SECTION 3.0 PROJECT DESCRIPTION

The project proposes to construct a community park between Kawana Springs Road and Kawana Terrace in Santa Rosa. The site is bisected by Kawana Springs Creek and contains three contiguous wetland mitigation areas for the Kawana Springs subdivision project that fill with water during rain events and drain into Kawana Springs Creek when inundated.

The proposed project would develop an approximately 19.2-acre site with a park that includes a fitness course, community garden, half basketball court, sand volleyball court, outdoor table tennis court, pump track, dog park, bathrooms, bocce court, open turf, gathering pavilion, picnic areas, children's play area, parking, and a paved trail adjacent to Kawana Springs Creek. A clear span pedestrian bridge is proposed over riparian habitat and Kawana Springs Creek on the northeast corner of the site (refer to Figure 3.0-1).

### 3.1.1 Access, Circulation, and Parking

Two parking lot and drop off zones are proposed north of the community garden on the westerly portion of the property and east of the intersection of Meda Avenue and Kawana Terrace on the southerly portion of the site. Parking also would be provided for the project along Kawana Springs Road and Meda Avenue via existing on-street parking. Parking deterrents, in the form of boulders and/or split rail fence, would be placed along Kawana Terrace east of the active park uses to avoid parking within the riparian woodland areas of the site.

A concrete pathway within the active park areas would provide on-site access between the park amenities including the dog park, play and picnic areas, turf area, and fitness course. A second concrete trail along the north side of Kawana Springs Creek would extend from the proposed community garden to the bridge crossing of the creek directly north of the County Taylor Mountain Park at the end of Kawana Terrace. Connections to the creek trail from the adjacent neighborhoods to the north would be provided at Meda Avenue, Brookwood Avenue, and Taylor Mountain Place. The connections would also require future construction of stop-controlled crosswalks at the Brookwood Avenue and Taylor Mountain Place intersections that would be implemented by the project.

### 3.1.2 Landscaping

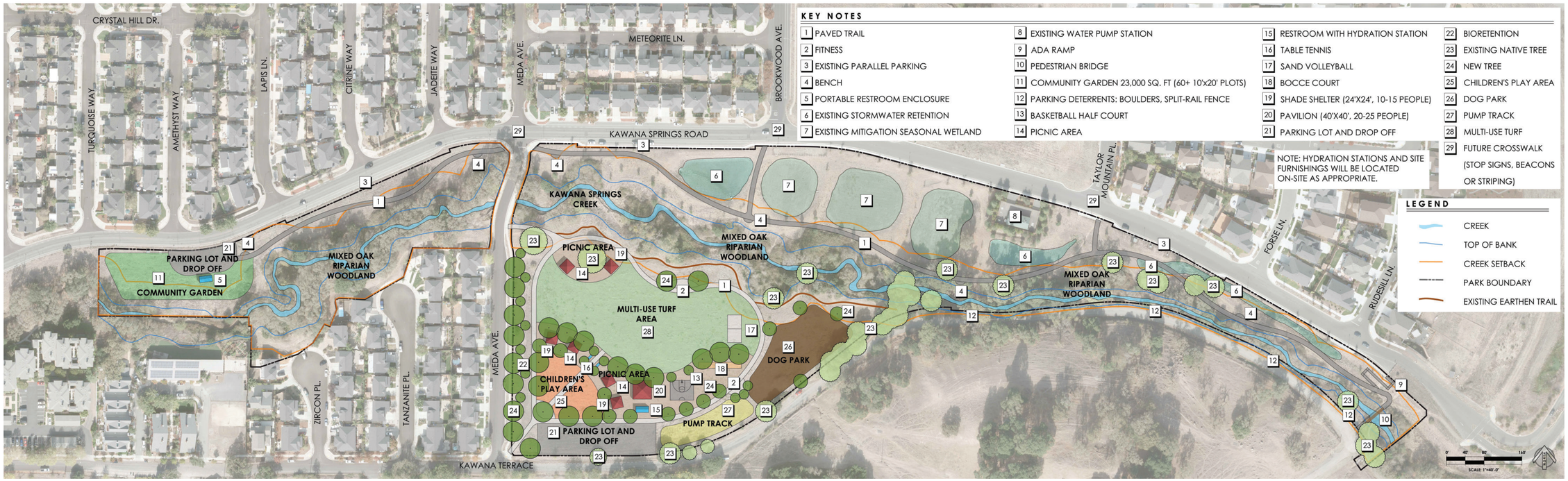
Landscaped trees would be planted throughout the developed areas of the project site, adjacent to the children's play area and picnic areas, to supplement existing native trees. Landscape trees would also be planted on the east side of the existing sidewalk on Meda Avenue. Approximately three trees would be removed to accommodate the paved trail amenities on the site (refer to *Section 4.4 Biological Resources*).

### 3.1.3 Hours of Operation

The proposed park would operate from 6:00 a.m. to 6:00 p.m. PST or 9:00 p.m. PDT, seven days per week consistent with the Santa Rosa Municipal Code Chapter 13-24. The park would include limited safety lighting near the restrooms and parking areas.

### 3.1.4 Project Construction

The project site is currently vacant with relatively flat topography. Construction of the project would require minimal grading and is anticipated to last approximately 15 months and may occur in phases depending on funds available for the project.




Source: GSM Landscape Architects, Inc. Nov. 30, 2018.

PROPOSED MASTER PLAN | FIGURE 3.0-1

# SECTION 4.0 ENVIRONMENTAL CHECKLIST AND IMPACT DISCUSSION

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

| | | | |
|---|---|---|---|
| 4.1 | Aesthetics | 4.10 | Land Use and Planning |
| 4.2 | Agricultural and Forestry Resources | 4.11 | Mineral Resources |
| 4.3 | Air Quality | 4.12 | Noise and Vibration |
| 4.4 | Biological Resources | 4.13 | Population and Housing |
| 4.5 | Cultural Resources | 4.14 | Public Services |
| 4.6 | Geology and Soils | 4.15 | Recreation |
| 4.7 | Greenhouse Gas Emissions | 4.16 | Transportation/Traffic |
| 4.8 | Hazards and Hazardous Materials | 4.17 | Utilities and Service Systems |
| 4.9 | Hydrology and Water Quality | 4.18 | Mandatory Findings of Significance |

The discussion for each environmental subject includes the following subsections:

- **Environmental Checklist –** The environmental checklist, as recommended by the CEQA [CEQA Guidelines Section 15063(d)(3)], identifies environmental impacts that could occur if the proposed project is implemented. The right-hand column of the checklist lists the source(s) for the answer to each question. The sources are identified at the end of this section.

- **Impact Discussion** – This subsection discusses the project's impact as it relates to the environmental checklist questions. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered using an alphanumeric system that identifies the environmental issue. For example, **Impact BIO-1** denotes the first potentially significant impact discussed in the Biological Resources section. Mitigation measures are also numbered to correspond to the impact they address. For example, **MM CUL-2.1** refers to the first mitigation measure for the second impact in the Cultural Resources section.

***Important Note to the Reader***

The California Supreme Court in a December 2015 opinion [*California Building Industry Association v. Bay Area Air Quality Management District (2015)*, 62 Cal. 4th 369] confirmed that the CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project. Therefore, the evaluation of the significance of project impacts under CEQA in the following sections focuses on impacts of the project on the environment, including whether a project may exacerbate existing environmental hazards.

The City of Santa Rosa currently has policies that address existing conditions (e.g., air quality, noise, and hazards) affecting a proposed project, which are also addressed in this section. This is consistent with one of the primary objectives of the CEQA and this document, which is to provide objective

information to decision-makers and the public regarding a project as a whole. The CEQA Guidelines and the courts are clear that a CEQA document (e.g., EIR or Initial Study) can include information of interest even if such information is not an "environmental impact" as defined by CEQA.

Therefore, where applicable, in addition to describing the impacts of the project on the environment, this chapter will discuss planning considerations that relate to policies pertaining to existing conditions. Such examples include, but are not limited to, locating a project near sources of air emissions that can pose a health risk, in a floodplain, in a geologic hazard zone, in a high noise environment, or on/adjacent to sites involving hazardous substances.

## 4.1 AESTHETICS

### 4.1.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| d) Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ | 1,2,3 |

### 4.1.2 Existing Setting

The project site is approximately 19.2 acres of undeveloped land located in the southeast quadrant of the City of Santa Rosa. The park site is bisected by Kawana Springs Creek and the larger areas suitable for active use are located to the south of the creek. The site contains lush riparian vegetation along Kawana Springs Creek and a narrow unpaved trail created naturally by site visitors that weaves adjacent to the creek. Sonoma County's Taylor Mountain Regional Park is located adjacent to and south of the park site.

The project site contains three wetland mitigation areas that fill with water during rain events and when full drain into Kawana Springs Creek. The wetland mitigation and park land dedication were accepted by the City from the Kawana Springs subdivision project. The wetland areas are visible to the east of Meda Avenue, south of Kawana Springs Road and north of Kawana Springs Creek (refer to Figure 2.0-3). The drainage areas can be easily viewed from Kawana Springs Road and are not fenced within the park boundary. There is, however, a fence along the frontage of Kawana Springs Road that prevents vehicle access. Views of the project site are provided in photographs 1 through 6, on the pages below.

#### 4.1.2.1 *Surrounding Visual Character*

The project site is located in a suburban residential neighborhood with semi-rural residential development located directly south of the park site. The site is surrounded by single-family residences to the north and west, a semi-rural residence to the south, and Taylor Mountain Regional Park to the east and southeast. The primary public view of the project site is looking south from Kawana Springs Road.


**Photo 1** – View of the project site from Meda Avenue looking northeast.

**Photo 2** – View of the project site and Taylor Mountain Regional Park along Kawana Springs Road looking southeast.

| PHOTOGRAPHS | 1 & 2 |
|---|---|

**Photo 3** – View of the project site on Kawana Springs Road facing west.

**Photo 4** – View of the eastern portion of the project site facing south toward Taylor Mountain Regional Park.

| PHOTOGRAPHS | 3 & 4 |
|---|---|

**Photo 5** – View of Kawana Springs Creek at the site of the proposed bridge crossing.

**Photo 6** – View of the non-jurisdictional stormwater retention bioswales in the northeastern portion of the project site.

Photo Source: WRA Environmental Consultants. Biological Resources Assessment Kawana Springs Community Park. September 2018.

| PHOTOGRAPHS | 5 & 6 |
|---|---|

#### 4.1.2.2 *Scenic Views and State Scenic Highways*

Due to the relatively flat topography to the north and west and the existing neighborhood in the surrounding area, views of the project site are limited to the immediate vicinity. The park site is substantially hidden from view within Taylor Mountain Regional Park due to its close proximity and topography of the regional park. Petaluma Hill Road, a designated scenic road, is located approximately 0.35 miles southwest of the project site. Petaluma Hill Road provides a scenic transition between the rural countryside and the City's urban area. The project site is not visible from Petaluma Hill Road. The site is not visible from any eligible or designated state scenic highways. State Route 12 and U.S. 101 are located approximately one mile north and three-quarter miles west of the project site, respectively.

### 4.1.3 Impact Discussion

**a) Have a substantial adverse effect on a scenic vista?**

The visibility of the proposed park and associated features would be limited to the immediately surrounding area. The primary visual change as a result of the project would occur at the existing residential uses located along the northern, western, and southern boundaries of the park. The site would not be visible from Petaluma Hill Road, a designated scenic road located approximately 0.35 miles west of the project site. Therefore, the project would not have an adverse effect on a scenic vista. **(Less Than Significant Impact)**

**b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

The site would not be visible from Petaluma Hill Road, a designated scenic road located approximately 0.35 miles west of the project site. The site does not contain historic buildings or rock outcroppings and tree removal on the site would be limited to three non-heritage trees. As described in *Section 4.4 Biological Resources*, the project would comply with the City's tree ordinance and provide approximately nine replacement trees on the site. **(Less Than Significant Impact)**

**c) Substantially degrade the existing visual character or quality of the site and its surroundings?**

The project site is undeveloped and located in a suburban residential neighborhood. The proposed project, which would introduce active park uses and landscaping onto approximately 5.5 acres of the vacant site. The remainder of the park would have passive recreational uses including a creek trail and benches which would not substantially alter the visual character of the site. The proposed community park would construct uses that are visually consistent with the character and quality of site and surrounding residential and park uses. **(Less Than Significant Impact)**

**d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?**

Due to the relatively flat topography of the project area, views of the project site are limited to the immediate area. The project site is most visible from the residential uses located directly north of

Kawana Springs Road and west of Meda Avenue. Lighting in the area is provided mainly from standard City street lights and the adjacent land uses.

The park would include standard park lighting, consistent with City parks uses. It would not be lit at night except for limited safety lighting near restrooms and parking areas and building lighting required for security purposes. The proposed project would not create a substantial source of daytime or nighttime glare. Although individual views from the adjacent residential development may be affected, there are many existing light sources in the project area, including residential and street lighting, and the addition of low-level security lighting would not substantially affect nighttime views of the surrounding area. The lighting would be designed to be shielded, consistent with City policies, to reduce the visibility of the lights and spill light. **(Less Than Significant Impact)**

### 4.1.4 Conclusion

Based on the limited amount of new lighting, proposed passive uses, and new landscaping, the project would not result in significant visual or aesthetic impacts associated with the proposed park. **(Less Than Significant Impact)**

## 4.2 AGRICULTURAL AND FORESTRY RESOURCES

### 4.2.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☒ | ☐ | 1,2,4 |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ | 1 |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | ☐ | ☐ | ☐ | ☒ | 1,2 |
| d) Result in a loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ | 1 |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ | 1,2,4 |

### 4.2.2 Existing Setting

The project site is currently undeveloped and consists primarily of vegetation and trees that extend beyond the site into Taylor Mountain Regional Park and Open Space Preserve. The project site is not designated as farmland or forestland in the City's General Plan. According to the *Sonoma County Important Farmland 2016* map, the project site is designated as *Farmland of Local Importance* and *Urban and Built-Up Land*. The *Farmland of Local Importance* designation means that the land has the capability to produce locally important crops but may not be planted at the present time. *Urban and Built-Up Land* is occupied by structures with approximately six structures to a 10-acre parcel.

### 4.2.3 Impact Discussion

**a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use?**

The project site is undeveloped and located northwest of Taylor Mountain Regional Park and Open Space Preserve in the City of Santa Rosa. Although the site is identified as farmland of local

importance, the project site does not include active agricultural uses and has been planned for park and recreation uses for more than 20 years. Therefore, the proposed project would have a less than significant impact on agricultural resources or operations. **(Less Than Significant Impact)**

**b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

In the City's General Plan, the project site is designated as *Parks and Recreation* and bounded by open space, residential, and retail land uses. The project is also mapped in Figure 6-1 in the Santa Rosa 2035 General Plan as a proposed Community Park. The project site is currently zoned Planned Development (96-001C) as a planned park facility and there are currently no agricultural uses on site. Based on historic aerials, the project site does not appear to have been in agricultural use for more than 50 years. No Williamson Act contracts are associated with the site. **(No Impact)**

**c, d) Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production? Result in a loss of forestland or conversion of forest land to non-forest use***?*

The project site is not currently designated or zoned as forest land. Development of the proposed community park could potentially result in the removal of existing trees and vegetation. However, this would not be considered a conversion of forest land to non-forest use. **(No Impact)**

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

According to the Sonoma *County Important Farmland 2016* map, the project site and surrounding area is designated as *Farmland of Local Importance* and *Urban and Built-Up Land* as described previously as well as *Other Land* associated with low density rural developments, and *Grazing Land* which contains suitable vegetation for the grazing of livestock. Due to the lack of any active farming on the site and proposed recreational use, the proposed park would not result in conversion of any active farmland or forest land. **(No Impact)**

### 4.2.4 Conclusion

Based on the lack of active farmland or forest land on the project site, the project would have a less than significant impact on agricultural and forestry resources. **(Less Than Significant Impact)**

## 4.3 AIR QUALITY

### 4.3.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☒ | ☐ | 1,5 |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☒ | ☐ | 1,5 |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors? | ☐ | ☐ | ☒ | ☐ | 1,5 |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☒ | ☐ | 1,5 |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ | 1,5 |

### 4.3.2 Setting

#### 4.3.2.1 *Background Information*

**Criteria Pollutants**

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards for six common air pollutants, referred to as "criteria pollutants": particulate matter (PM), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The California Air Resources Board (CARB) and the EPA have adopted ambient air quality standards establishing permissible levels of these pollutants.

Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. Areas that comply with air quality standards are designated as "attainment" areas for the relevant air pollutants. Areas with air quality that exceed adopted air quality standards are designated as "nonattainment" areas for the relevant air pollutants. Nonattainment areas are sometimes further classified by degree (marginal, moderate, serious, severe, and extreme for ozone, and moderate and serious for carbon monoxide and $PM_{10}$) or status ("nonattainment-transitional").

**Local Community Risks/Toxic Air Contaminants and Fine Particulate Matter**

The Federal Clean Air Act defines Hazardous Air Pollutants (HAPs) as air contaminants identified by U.S. EPA as known or suspected to cause cancer, serious illness, birth defects, or death. In California, Toxic Air Contaminants (TACs) include all HAPs, plus other contaminants identified by CARB as known to cause morbidity or mortality (cancer risk). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and Federal level. Unlike other emissions, TACs are measured based on the risk of human health rather than a set emission standard.

Diesel exhaust, a mixture of gases, vapors, and fine particles, is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). Diesel particulate matter (DPM) is of particular concern since it can be distributed over large regions, thus leading to widespread public exposure. CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy duty diesel trucks. These trucks represent the bulk of DPM emissions from California highways and include the solid waste collection vehicles, public and utility fleets, and the heavy-duty diesel trucks and buses.

**Construction TAC and $PM_{2.5}$ Health Risks**

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors.

#### 4.3.2.2 *Existing Conditions*

Air quality and the amount of a given pollutant in the atmosphere are determined by the amount of a pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and for photochemical pollutants, sunshine.

Santa Rosa, in the Cotati Valley, is a sub region of the San Francisco Bay Area Air Basin. The San Francisco Bay Area typically has moderate ventilation, frequent inversions that restrict vertical dilution, and terrain that restricts horizontal dilution. These factors give the Bay Area a relatively high atmospheric potential for pollution. Sonoma County's climate is largely affected by the topography of the Petaluma, Cotati, and Sonoma valleys. Average daily temperatures range from moderate overnight to hot during the day in the summer, and cool overnight to moderate during the day in the winter. Wind patterns in the Petaluma and Cotati valleys are strongly influenced by the Petaluma Gap, with calm to mild winds typical in Santa Rosa. During late afternoons in summer, fog

is common in the Petaluma and Cotati valleys, and can persist until late morning the following day. Annual rainfall averages 30 inches in Santa Rosa.

**Sensitive Receptors**

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the project site are the single-family residences that border the site to the north, south, and west. In addition, Sonoma Academy is located approximately 800 feet northeast of the site.

#### 4.3.2.3 *Applicable Plans, Policies, and Regulations*

**BAAQMD Guidelines**

The Bay Area Air Quality Management District (BAAQMD) is the regional agency tasked with managing air quality in the region. The BAAQMD is primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. As noted above, air quality standards are set by the federal government (the 1970 Clean Air Act and its subsequent amendments) and the state (California Clean Air Act and its subsequent amendments).

Regional air quality management districts such as BAAQMD must prepare air quality plans specifying how state air quality standards would be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two closely-related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the Plan describes how the BAAQMD will continue its progress toward attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities.

The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion. The BAAQMD has published CEQA Air Quality Guidelines that are used in this analysis to evaluate the air quality impacts of the project.

As previously discussed in *Section 4.0* of this Initial Study, on December 17, 2015, the California Supreme Court issued an opinion in "CBIA vs. BAAQMD" holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents unless the project risks exacerbating those environmental hazards or risks that already exist. In light of this ruling, the effect of existing air pollutants from off-site sources on new sensitive receptors introduced by the

project would not be considered an impact under CEQA. Nevertheless, the City has policies and regulations that address existing conditions affecting a proposed project, which are also discussed below.

**City of Santa Rosa General Plan**

The City of Santa Rosa's General Plan contains several policies to support the goal to improve the health and sustainability of the community through continued local efforts to improve regional air quality, reduce greenhouse gas emissions, and reduce community exposures to health risks associated with toxic air contaminants and fine particulate matter. Policies pertaining to construction period emissions include the following:

| Policy | Description |
|---|---|
| Goal OSC-J | Take appropriate actions to help Santa Rosa and the larger Bay Area region achieve and maintain all ambient air quality standards. |
| Policy OSC-J-1 | Review all new construction projects and require dust abatement actions as contained in the CEQA Handbook of the Bay Area Air Quality Management District. |

### 4.3.3 Impact Discussion

**a) Conflict with or obstruct implementation of the applicable air quality plan?**

The 2017 CAP includes 85 control measures that are intended reduce air pollutant emissions in the Bay Area either directly or indirectly. These control measures are divided into nine categories that include:

- Stationary Sources;
- Transportation;
- Energy;
- Agriculture;
- Water;
- Waste;
- Buildings;
- Natural and Working Lands; and
- Super-GHG Pollutants.

The consistency of the project is evaluated with respect to each set of applicable control measures in Table 4.3-1.

| Table 4.3-1: Bay Area 2017 Clean Air Plan Applicable Control Measures | | |
|---|---|---|
| **Control Measures** | **Description** | **Project Consistency** |
| ***Transportation Measures*** | | |
| Bicycle and Pedestrian Access and Facilities | Encourage planning for bicycle and pedestrian facilities in local plans, e.g., general and specific plans, fund bike lanes, routes, paths and bicycle parking facilities. | The project includes trails that would facilitate bicycle and pedestrian travel through the site, and provide connectivity to adjacent streets and adjacent public open space. |
| ***Building Measures*** | | |
| Urban Heat Island Mitigation | Develop and urge adoption of a model ordinance for "cool parking" that promotes the use of cool surface treatments for new parking facilities, as well existing surface lots undergoing resurfacing. Develop and promote adoption of model building code requirements for new construction or reroofing/ roofing upgrades for commercial and residential multifamily housing. | The project would be required to comply with the City's Green Building Ordinance and the most recent California Building Code which would increase building efficiency over standard construction. Therefore, the project is consistent with this control measure. |
| ***Natural and Working Lands Measures*** | | |
| Urban Tree Planting | Develop or identify an existing model municipal tree planting ordinance and encourage local governments to adopt such an ordinance. Include tree planting recommendations, the Air District's technical guidance, best management practices for local plans, and CEQA review. | The project would be required to adhere to the City's tree replacement policy. Therefore, the project is consistent with this control measure. |

The project includes transportation, building, and natural and working lands measures consistent with the 2017 CAP. The project is also consistent with the City's General Plan. The project, by itself would not result in a significant impact related to consistency with the Bay Area 2017 CAP. **(Less Than Significant Impact)**

**b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

As discussed in CEQA Guidelines Section 15064(b)(1), the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the Lead Agency and must be based to the extent possible on scientific and factual data. The City of Santa Rosa has carefully considered the thresholds updated by BAAQMD in May 2017 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and $PM_{2.5}$. The BAAQMD CEQA Air Quality thresholds used in this analysis are identified in Table 4.3-2.

According to the BAAQMD thresholds listed in Table 4.3-2 below, a project that generates more than 54 pounds per day of ROG (reactive organic gases), $NO_x$, or $PM_{2.5}$; or 82 pounds per day of $PM_{10}$ would be considered to have a significant impact on regional air quality. The BAAQMD developed screening criteria that provide lead agencies with a conservative indication of whether a proposed project could result in a significant operational impact (e.g., daily or annual emissions above these thresholds). The proposed project would construct a community park on an approximately 19.2-acre park site. Based on the BAAQMD established screening thresholds for City parks of 2,613 acres for potential operational impacts,[1] the project would not result in a significant impact to regional air quality in the San Francisco Bay Area Air Basin due to operational criteria pollutant emissions. **(Less Than Significant Impact)**

**Table 4.3-2:**
**Thresholds of Significance Used in Air Quality Analyses**

| Pollutant | Construction | Operation | |
|---|---|---|---|
| | **Average Daily Emissions (pounds)** | **Annual Daily Emissions (pounds)** | **Annual Average Emissions (tons)** |
| ROG, $NO_x$ | 54 | 54 | 10 |
| $PM_{10}$ | 82 (exhaust) | 82 | 15 |
| $PM_{2.5}$ | 54 (exhaust) | 54 | 10 |
| Fugitive Dust | Implement Best Management Practices | None | None |
| Risks and Hazards for New Sources and Receptors (Project) | Same as operational threshold | • Increased cancer risk of >10.0 in one million<br>• Increased non-cancer risk of > 1.0 Hazard Index (chronic or acute)<br>• Ambient $PM_{2.5}$ increase: > 0.3 $\mu/m^3$ (Zone of influence: 1,000-foot radius from property line of source or receptor) | |
| Risk and Hazards for New Sources and Receptors (Cumulative) | Same as operational threshold | • Increased cancer risk of >100 in one million<br>• Increased non-cancer risk of > 10.0 Hazard Index (chronic or acute)<br>• Ambient PM2.5 increase: > 0.8 $\mu/m^3$ (Zone of influence: 1,000-foot radius from property line of source or receptor) | |

Sources: BAAQMD CEQA *Thresholds Options and Justification Report (2009)* and BAAQMD CEQA *Air Quality Guidelines* (dated May 2017).

[1] For stationary source projects, modeling for CO concentrations is only required for projects emitting 100 tons per year or more of CO. Projects emitting less are assumed to not exceed the CO concentration threshold.

**c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?**

[1] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, Table 3-1, Operational-Related Criteria Air Pollutant and Precursor Screening Level Sizes, Updated May 2017, p. 3-2.

Non-attainment pollutants of concern for the San Francisco Bay Air Basin are ozone, $PM_{10}$ and $PM_{2.5}$. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed in impact (b) above, the project's operational and construction emissions would be less than significant since the project falls well under the BAAQMD's screening thresholds. In addition, construction on the site will be required to implement BAAQMD's Best Management Practices for dust control in accordance with the City's General Plan policies, as discussed in impact (d) below.

**d) Expose sensitive receptors to substantial pollutant concentrations?**

**Construction Emissions**

Criteria Pollutants

The BAAQMD screening criteria size for construction impacts from criteria pollutants is 67 acres for a City park. Projects that are smaller than the screening size are considered to have a less than significant operational air quality impact. The proposed 19.2-acre project is well below the screening size for the proposed land use. Therefore, the project would have a less than significant construction air quality impact from criteria pollutant emissions.

Dust Emissions

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of respirable particulate matter ($PM_{10}$ and $PM_{2.5}$). Construction vehicle access to the site would be provided from Kawana Springs Road. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soil. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The generation of dust and other particulate matter could temporarily impact sensitive receptors at nearby residential properties. The BAAQMD CEQA Air Quality Guidelines consider these construction-related impacts to be less than significant if Best Management Practices are employed to reduce these emissions. This analysis assumes that the project implements Best Management Practices recommended by BAAQMD, which are described below and included as part of the project.

**Standard Conditions:** The following standard measures would be implemented during construction to reduce dust impacts:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.

- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five (5) minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The dust control/exhaust measures listed for construction impacts would ensure that the construction of the proposed park would emit less exhaust emissions (including diesel) and fugitive dust emissions and would result a less than significant construction-related air quality impact on nearby residents. **(Less Than Significant Impact)**

**Construction TAC and $PM_{2.5}$ Health Risks**

The BAAQMD established thresholds of significance for local community risk and hazard impacts that apply to both the siting of a new source and to the siting of a new receptor. Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. Due to the limited grading and construction activities associated with the proposed park, the project is not a source of substantial TAC or $PM_{2.5}$ emissions. Given that the proposed project is a park and park users would spend a small fraction of their life at the park, and the site is not adjacent to major roadways, the project would not expose park visitors to excessive vehicle-related DPM emissions in excess of BAAQMD thresholds. **(Less Than Significant Impact)**

**e) Create objectionable odors affecting a substantial number of people?**

No new significant odor sources are proposed as part of the project; therefore, implementation of the proposed park would not create objectionable odors affecting a substantial number of people near the site. While construction of the development would result in temporary exhaust emissions, it would not result in a significant odor impact. **(Less Than Significant Impact)**

### 4.3.4 Conclusion

With the implementation of the identified construction-related Standard Measures, the project would not result in significant regional criteria pollutant or construction-related air quality impacts. **(Less Than Significant Impact)**

## 4.4 BIOLOGICAL RESOURCES

The following discussion is based, in part, on a Biological Resources Assessment prepared by *WRA Environmental Consultants* (*WRA*) in March 2019. Copies of this report are included in Appendix A of this Initial Study.

### 4.4.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)? | ☐ | ☒ | ☐ | ☐ | 1,2,6 |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS? | ☐ | ☐ | ☒ | ☐ | 1,2,6 |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☒ | ☐ | 1,2,6 |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites? | ☐ | ☐ | ☒ | ☐ | 1,2,6 |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☒ | ☐ | 1,2,3 |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☒ | ☐ | 1,2,3 |

### 4.4.2 Existing Setting

The project site is approximately 19.2 acres of undeveloped land that is bisected by Kawana Springs Creek, which is an intermittent United States Geological Survey (USGS) "blue-line" stream that flows through the project site in a westerly direction. Seven biological communities were identified on the project site. Non-sensitive biological communities include: ruderal herbaceous grassland, developed/disturbed areas, and non-jurisdictional stormwater retention basin/bioswales. The majority of the project site is composed of non-sensitive ruderal herbaceous grassland. Recent aerial photographs indicate that this community has been repeatedly and continuously disturbed by discing, mowing, or grading, and during the site visit, this community was almost entirely dominated by non-native invasive species adapted to repeated disturbance. Sensitive biological communities observed within the project site are described in detail below.

**Wetlands and Waters of the U.S.**

Intermittent Stream

The project site contains approximately 0.57 acre (3,087 linear feet) of the intermittent stream, which bisects the project site flowing in a westerly direction. The bed of the channel is composed of rock and cobble mixed with sands and silts. Portions of the creek have steep, eroded banks as a result of high flow events, and several fairly recent tree failures were observed crossing the creek. Dominant vegetation along the banks of the intermittent stream is composed of valley oak (*Quercus lobata*) riparian woodland. Areas mapped as intermittent creek are considered jurisdictional under Section 404 of the Clean Water Act (CWA) and Section 1602 of the California Fish and Game Code (CFGC).

Ephemeral Stream

One ephemeral stream, a tributary to Kawana Springs Creek, is located at the eastern end of the project site. The ephemeral stream is approximately 0.01 acre (83 linear feet), and enters the site from adjacent slopes to the south in the Taylor Mountain Regional Park. The bed of the ephemeral stream is approximately two feet wide with an approximate four-foot width between tops-of-bank. The feature flows in a northerly direction into the Study Area through non-native annual grassland. The stream flows through an underground culvert beneath Kawana Terrace and into Kawana Springs Creek near the easterly boundary of the site. Areas mapped as ephemeral stream are considered jurisdictional under Section 404 of the CWA and Section 1602 of the CFGC.

Mitigation Seasonal Wetland

The project site contains three mitigation seasonal wetlands, totaling approximately 0.99-acre within the northern portion of the project site, north of Kawana Springs Creek. These mitigation wetlands were constructed in the summer and fall of 2007 as mitigation for impacts to jurisdictional wetlands associated with three Kawana Springs subdivision projects. The mitigation wetlands were created by excavating an upland area to create a series of depressions. The wetlands were designed to be inundated and/or saturated by direct precipitation and augmented by treated runoff from a bio-swale immediately east of the mitigation wetlands, and a stormwater retention basin directly west of the mitigation wetlands. All three mitigation wetlands appeared to be functioning as wetlands during the December 2016 site visit, as evidenced by observed saturation and/or inundation and dominance

of hydrophytic vegetation within the wetland features. Areas mapped as mitigation seasonal wetlands are considered jurisdictional under Section 404 of the CWA.

## Other Sensitive Biological Communities

Valley Oak Riparian Woodland

Valley oak riparian woodland occupies approximately 4.94 acres of the project site. Valley oak riparian woodland forms a contiguous canopy along the banks of Kawana Springs Creek for the majority of the creek's length within the project site. This community was mapped in accordance with California Native Plant Society (CNPS) as having valley oak greater than 30 percent relative cover in the tree canopy with other tree species present.

The overstory is composed of a mix of native trees and tolerant of winter flooding and/or a high water table, including valley oak, coast live oak (*Quercus agrifolia*), buckeye (*Aesculus californica*), arroyo willow (*Salix lasiolepis*), and Oregon ash (*Fraxinus latifolia*). Other non-native ornamental trees are present in low densities, including Monterey cypress (*Hesperocyparis gymnocarpa*), and cherry plum (*Prunus cerasifera*). The understory is dominated by non-native invasive Himalayan blackberry (*Rubus armeniacus*) throughout the majority of the project site.

Native woody understory species present include poison oak (*Toxicodendron diversilobum*), and California wild rose (*Rosa californica*). Valley oak woodland is reported by the California Department of Fish and Wildlife (CDFW) with a rarity ranking that it is considered vulnerable globally and in California. Valley oak riparian woodland is also considered a sensitive community under Section 1602 of the CFGC, and the project site also contains many individual trees protected under the City of Santa Rosa Tree Ordinance. Any development within this community, including but not limited to trail construction will require a Section 1602 permit through CDFW.

Special-Status Plant Species

Eighty-nine special-status plant species have been documented within the vicinity of the project site, defined as the Santa Rosa and eight surrounding USGS 7.5-minute quadrangles. Of the 89 special-status species documented, all are either unlikely or have no potential to occur within the project site. All listed plant species covered by the Santa Rosa Plain Conservation Strategy, including Burke's goldfields, Sonoma sunshine, and Sebastopol meadowfoam are unlikely to occur within the project site due to a lack of vernal pool habitat, lack of suitable hydrology (i.e. extended ponding), prior disturbance (i.e. mowing), and lack of historical occurrences within the immediate proximity (within 2 miles) of the site. Moreover, the site is located in area assessed by the Santa Rosa Plain Programmatic Biological Opinion as "no listed plants in the area."

Special Status Wildlife Species

A total of 37 special-status wildlife species are known in the vicinity based upon review of the resources and databases. Of these wildlife species, 15 have moderate or high potential to occur within the project site. Special-status wildlife species with potential to occur include seven species of bat, five species of birds, western pond turtle, California red-legged frog, and California giant salamander.

The diversity of vegetation within the project site provides a variety of suitable conditions for nesting and foraging by both special-status and non-special-status birds. Vegetation communities including non-native grassland and coast live oak woodland may provide suitable habitat to support nesting birds. Table 4.4-1 identifies special-status birds which have been documented in the area and have a moderate to high potential to nest within the project site.

**Table 4.4-1: Special-Status Birds with Moderate or High Potential to Nest within the Project Site**

| Scientific Name | Common Name | Protection Status |
|---|---|---|
| *Selasphorus sasin* | Allen's hummingbird | USFWS[1] Bird of Conservation Concern |
| *Spinus lawrencei* | Lawrence's goldfinch | USFWS Bird of Conservation Concern |
| *Picoides nuttallii* | Nuttall's woodpecker | USFWS Bird of Conservation Concern |
| *Chaetura vauxi* | Vaux's swift | CDFW[2] Species of Conservation Concern |
| *Elanus leucurus* | white-tailed kite | California Fully Protected Species |
| *Dendroica petechia* ssp. *brewsteri* | yellow warbler | USFWS Bird of Conservation Concern |
| *Icteria virens* | yellow-breasted chat | CDFW Species of Conservation Concern |

Notes:
[1] United States Fish and Wildlife Service
[2] California Department of Fish and Wildlife

Seven special-status bats and three special-status herptile species have moderate to high potential to occur within the project site, as shown below in Table 4.4-2.

**Table 4.4-2: Special-Status Bats and Herptile Species with Moderate or High Potential to occur within the Project Site**

| Scientific Name | Common Name | Protection Status |
|---|---|---|
| **Bat Species** | | |
| Myotis thysanodes | fringed myotis | WBWG[1] High Priority |
| Lasiurus cinereus | hoary bat | WBWG Medium Priority |
| Myotis volans | long-legged myotis | WBWG High Priority |
| Antrozous pallidus | pallid bat | CDFW Species of Special Concern, WBWG High Priority |
| Corynorhinus townsendii | Townsend's big-eared bat | CDFW Species of Special Concern, WBWG High Priority |
| Lasiurus blossevillii | Western red bat | CDFW Species of Special Concern, WBWG High Priority |
| Myotis yumanensis | Yuma myotis | WBWG Low Priority |
| **Herptile Species** | | |
| *Dicamptodon ensatus* | California giant salamander | CDFW Species of Special Concern |

| Table 4.4-2: Special-Status Bats and Herptile Species with Moderate or High Potential to occur within the Project Site | | |
|---|---|---|
| **Scientific Name** | **Common Name** | **Protection Status** |
| *Rana draytonii* | California red-legged frog | USFWS Threatened Species, CDFW Species of Special Concern |
| *Actinemys marmorata* | western pond turtle | CDFW Species of Special Concern |
| Notes:<br>[1] Western Bat Working Group | | |

**Protected Trees**

The project site contains numerous native trees that are large enough to be considered "heritage" trees under Chapter 17-24 of the Santa Rosa City Code. WRA's ISA-Certified Arborist conducted a survey of trees on the project site and identified 47 trees within the vicinity of park improvements. Of the 47 trees, 27 are considered "heritage" trees, and 20 are non-heritage. Heritage trees present within the vicinity of project improvements include coast live oak, buckeye, and valley oak ranging in size from 10.9 to 52.8 diameter at breast height, measured 4.5 feet above ground.

**Santa Rosa Plain Conservation Strategy**

The project site is located within the Santa Rosa Plain, an eco-region which supports habitat for many vernal pool-associated special-status species. The USFWS developed the Santa Rosa Plain Conservation Strategy as a conservation plan for these species. The Santa Rosa Plain Conservation Strategy Area is an area established by the USFWS for the protection and continued existence of California tiger salamander (CTS, *Ambystoma californiense*) and three endangered plant species: Burke's goldfields (*Lasthenia burkei*), Sonoma sunshine (*Blennosperma bakeri*), and Sebastopol meadowfoam (*Limnanthes vinculans*). The Conservation Strategy outlines the specific species of concern for this area along with guidance for specific conservation measures. In 2007 the Corps consulted with the USFWS on Section 404 permitting within the Conservation Strategy area which resulted in a Programmatic Biological Opinion (PBO). This 2007 PBO outlines the mitigation requirements resulting from impacts to wetlands and associated impacts to CTS and the three listed plants, and can be appended to permits authorized by the Corps. It is the PBO that dictates the mitigation requirements for CTS and the three listed plant species.

### 4.4.3 Impact Discussion

**a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?**

**Sensitive Plant Species**

All special-status plant species documented within the vicinity of the project site are unlikely or have no potential to occur in the project site area. Therefore, the proposed project is not anticipated to impact special-status plant species. **(Less Than Significant Impact)**

### Sensitive Wildlife Species

Fifteen (15) special-status wildlife species were determined to have moderate or high potential to occur within the project site area. Kawana Springs Creek may be seasonally suitable for California giant salamander and western pond turtle; however, because aquatic habitat within the project site area is marginal and work will not occur below top of bank, project activities would not adversely affect these species. **(Less Than Significant Impact)**

### Special-status Bats

The project site contains trees with possible cavities that may provide roost habitat to special-status bat species documented in the vicinity of the project site, including hoary bat, long-legged bat, and pallid bat. Impacts to these species and their roost habitats could occur during the removal of trees on the project site. Construction activities may also create audible, vibratory and/or visual disturbances which cause maternity roosting bats to abandon their roost site.

**Impact BIO – 1**: Construction activities and tree removal may impact special-status bat species that may use trees as a roost, and could result in the direct removal, abandonment, or destruction of the maternity roost. **(Significant Impact)**

**Mitigation Measures:** The project will be required to implement the following mitigation measures to reduce impacts to bats to a less than significant level:

**MM BIO – 1.1:** A qualified biologist shall conduct a roost assessment survey within trees located on the project site. The survey will assess use of suitable trees for roosting as well as potential presence of bats. If the biologist finds no evidence of, or potential to support bat roosting, no further measures are recommended. If evidence of bat roosting is present, additional measures described below shall be implemented:

- If evidence of bat roosting is discovered during the pre-construction roost assessment and construction is planned August 1 through February 28 (outside the bat maternity roosting season), a qualified biologist shall implement passive exclusion measures to prevent bats from re-entering trees. After sufficient time to allow bats to escape and a follow-up survey to determine if bats have vacated the roost, construction may continue and impacts to special-status bat species will be avoided.
- If a pre-construction roost assessment discovers evidence of bat roosting in trees during the maternity roosting season (March 1 through July 31), and determines maternity roosting bats are present, demolition of maternity roost trees will be avoided during the maternity roosting season or until a qualified biologist determines the roost has been vacated. **(Less Than Significant Impact with Mitigation Incorporated)**

## Special-status Herptiles

California Red-legged Frog

California Red-legged frog (CRLF) breeding and year-round habitat is within one mile of the project site. CRLF may use Kawana Springs Creek for non-breeding aquatic habitat. CRLF may disperse into the project site from nearby suitable aquatic habitat during rain events. Construction activities including vegetation removal and grading could result in direct injury or mortality.

**Impact BIO – 2**: Construction activities associated with the project could impact California Red-legged frog species if present on-site. **(Significant Impact)**

**Mitigation Measures:** The project will be required to implement the following mitigation measures to reduce impacts to CRLF species to a less than significant level:

**MM BIO – 2.1:** Prior to, and during construction on the site, the project will implement the following protection measures for CRLF:

- All workers will receive a worker environmental awareness training program describing CRLF, its status, and penalties for take.
- Work buffers will be observed around CRLF if any are detected, and a designated project biologist will be contacted to document the observation and recommend additional measures if deemed necessary.
- Any trenches or pipes will be covered or capped overnight and BMPs will be constructed of natural materials that will not entrap wildlife.
- If construction personnel observe a dead or injured listed species or if a listed species is killed or injured during construction-related activities, the worker will immediately report the incident to the service-approved biologist and the USFWS will be notified within 24-hours of the incident.
- No ground disturbance work will occur within 24 hours of rain events that generate greater than 0.25-inch of accumulated precipitation or during rain events predicted to accumulate 0.25-inch of precipitation. **(Less Than Significant Impact with Mitigation Incorporated)**

Foothill Yellow-legged Frog

The project site contains a small, low gradient, intermittent stream that could support Foothill yellow-legged frog (FYLF) habitat during part of the year. Impacts to this species could occur during vegetation removal or ground disturbing activities in close proximity to Kawana Springs Creek or during flood periods where FYLF may occur above the top of bank. The direct injury or harm of FYLF due to project activities is a potentially significant impact as FYLF is a candidate for listing under the California Endangered Species Act.

**Impact BIO – 3**: Construction activities associated with the project could impact foothill yellow-legged frog species if present on-site. **(Significant Impact)**

**Mitigation Measures:** The project will be required to implement the following mitigation measures to reduce impacts to FYLF species to a less than significant level:

**MM BIO- 3.1**: Prior to, and during construction on the site, the project will implement the following protection measures for FYLF:

- Work within 100 feet of any streams, ponds, or riparian areas will be limited to the dry season (April 1 to October 31) to the extent feasible.
- No work within the bed and banks of Kawana Springs Creek will occur.
- If work must occur outside of the dry season (November 1 to March 31), pre-construction surveys will be conducted within five days of the start of initial project work within areas that may support FYLF. These surveys will investigate for the presence of all life stages (adults, subadults, tadpoles, or egg masses). If the species is detected, a qualified biologist will be present during work within 100 feet of top of bank to ensure prevention of take of the species under the CESA.
- Any personnel involved in construction activities will receive worker environmental educational program training from a qualified biologist in the identification, life history, habitat requirements for the species, status of the species, and receive instructions on what to do if the species is encountered in or near the work area.

With the implementation of the mitigation measures described above and included in the project, the project will not have substantial adverse effects on any species identified as a candidate, sensitive, or special-status species**. (Less Than Significant With Mitigation)**

**b, c) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS? Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

The project site contains intermittent and ephemeral streams, and mitigation seasonal wetlands which are likely to be considered jurisdictional waters of the U.S. All areas mapped as ephemeral stream, intermittent stream, and mitigation seasonal wetland will be avoided by the proposed project and are shown in Figure 4.4-1. However, the site plan includes one footbridge crossing across Kawana Springs Creek which may have potential impacts to habitat adjacent to the creek. The project plans indicate that the bridge footings will be situated outside of the ordinary high water mark (OHWM), and above top of bank (TOB). Work proposed outside the top of bank but within riparian habitat will require a CDFW Section 1602 Streambed Alteration Agreement to address impacts to valley oak riparian woodland.

Stream setbacks for new structures may apply per Section 20-30.040 of the Santa Rosa City Code. The setback area on either side of Kawana Springs Creek is typically measured as 50 feet from the top of the highest bank of the creek. The City can be exempted from compliance with Section 20-30.040; however, the limited improvements proposed within the setback such as trails, benches, and a community garden are generally consistent with the setback requirement.

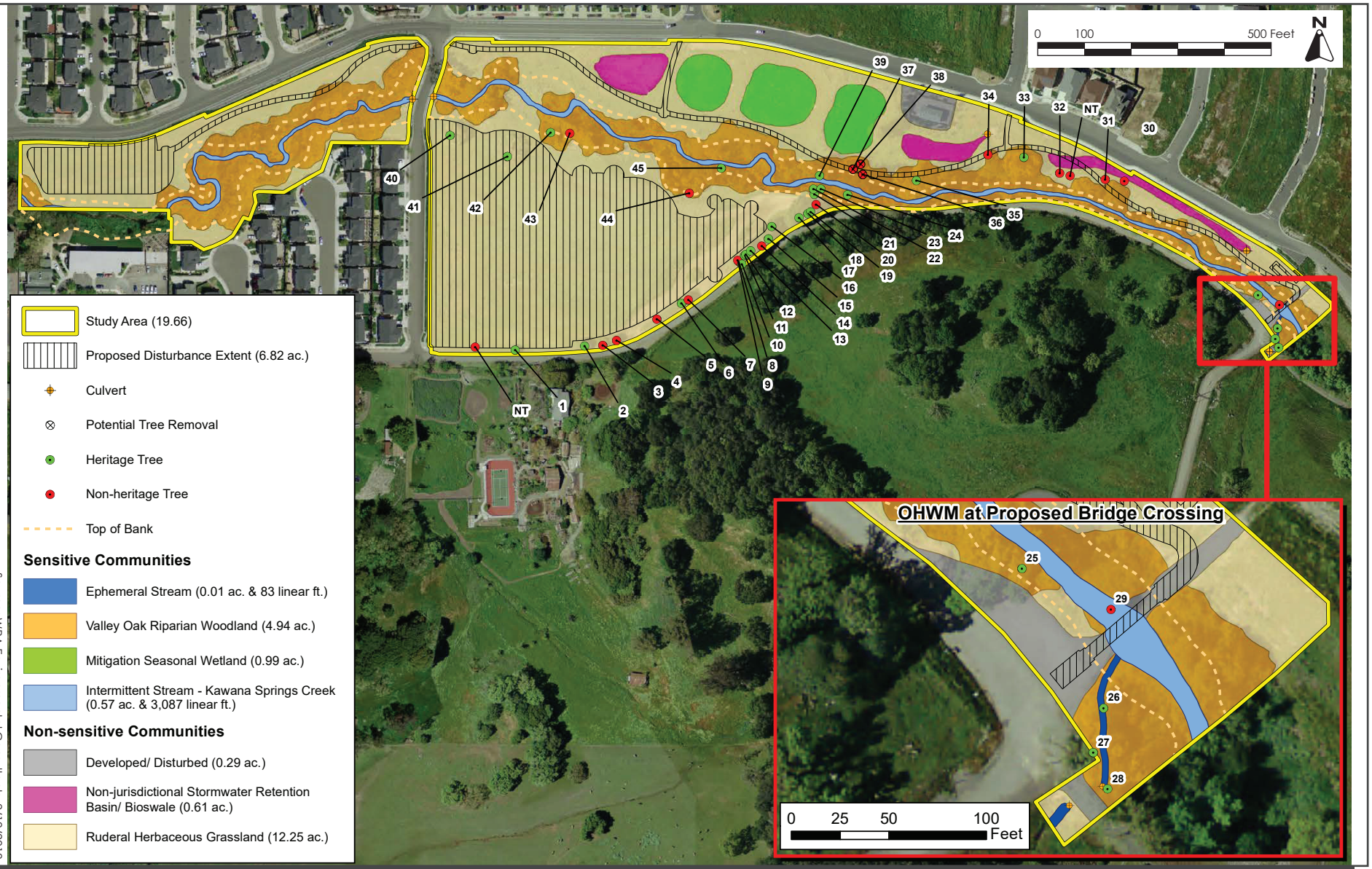
Removal of vegetation, particularly woody trees and shrubs within the valley oak riparian woodland will require a CDFW permit and replacement mitigation. The project is anticipated to require removal of two dead non-native cherry plum trees and one live cherry plum tree within riparian habitat. Mitigation replacement plantings at a ratio of 3:1 replacement trees planted per tree removed, for a maximum of nine replacement trees, would be required.

**Impact BIO – 4:** Construction of proposed trail improvements on the north side of Kawana Springs Creek would result in tree removal within Valley Oak riparian woodland habitat. **(Significant Impact)**

**Mitigation Measures:** The project will implement the following mitigation measures to reduce impacts to Valley Oak riparian woodland habitat to a less than significant level:

**MM BIO – 4.1:** A habitat mitigation and monitoring plan (HMMP) would be developed that will provide details on how to replace trees to compensate for removal of riparian trees. Replacement plantings shall be sited in non-native annual grassland habitat adjacent to valley oak riparian woodland with the intention of filling in gaps in existing riparian woodland habitat, and/or expanding the extent of riparian habitat within the project area. The Plan shall include: 1) a plant palette of species/quantity riparian species to be planted; 2) approximate area of temporary and permanent riparian impacts; 3) a map showing restoration locations, area dimensions, and riparian enhancement methods; and 4) performance standards, monitoring and reporting programs, and corrective actions to be taken when enhancement measures do not meet performance standards.

With the obtainment of applicable permits outlined above, and adherence to any required mitigation measures as required by such permits, impacts to riparian habitat would be less-than-significant. **(Less Than Significant Impact)**




Source: WRA Environmental Consultants, 2/19/2019.

SENSITIVE AND NON-SENSITIVE BIOLOGICAL COMMUNITIES

FIGURE 4.4-1

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

Nesting Birds

The proposed park project has the potential to impact special-status and non-special-status native nesting birds protected by the CFGC and the MBTA including white-tailed kite, oak titmouse, Allen's hummingbird, Nuttall's woodpecker, Lawrence's goldfinch, yellow-breasted chat, yellow warbler, and Vaux's swift. Construction activities such as vegetation removal and ground disturbance associated with development would have the potential to affect these species by causing direct mortality of eggs or young, or by causing auditory, vibratory, and/or visual disturbance of a sufficient level to cause abandonment of an active nest. If construction occurs during the nesting season, which generally extends from February 1 through August 31 nests of both special-status and nonspecial- status native birds could be impacted by construction and other ground disturbing activities.

**Impact BIO – 5**: The proposed project may disturb nesting birds on and adjacent to the site during construction. **(Significant Impact)**

**Mitigation Measures:** The project will be required to implement the following mitigation measures to reduce impacts to raptors and migratory birds to a less than significant level:

**MM BIO - 5.1:** If ground disturbance or vegetation removal is initiated in the non-breeding season (September 1 through January 31), no pre-construction surveys for nesting birds are required and no adverse impact to birds would result.

**MM BIO - 5.2:** If ground disturbance or removal of vegetation occurs in the breeding bird season (February 1 through August 31); pre-construction surveys shall be performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, temporary no-work buffers shall be placed around active nests to prevent adverse impacts to nesting birds. Appropriate buffer distance shall be determined by a qualified biologist and is dependent on species, surrounding vegetation, and topography. Once active nests become inactive, such as when young fledge the nest or the nest is subject to predation, work shall continue in the bugger area and no adverse impact to birds will result. **(Less Than Significant Impact With Mitigation)**

**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

The project has been designed to locate project elements such as trails, picnic areas, play areas and parking lots away from protected trees and outside of tree drip lines, where possible. Based on the survey conducted by *WRA* in January 2017, the project site contains 47 trees, with 27 heritage trees as defined by the City of Santa Rosa Tree Ordinance, and 20 non-heritage trees. The project has

been designed to avoid and preserve trees, especially heritage trees to the maximum extent feasible. The City is considered exempt from their own tree ordinance on trees, other than heritage trees, situated within City owned parks and other City owned or controlled places when altered, removed, or relocated by City employees or by contractors retained by the City (Santa Rosa City Code Section 17-24.030).

Based on the Biological Resources Assessment, three non-heritage trees are anticipated to require removal to facilitate project improvements. Removal of non-heritage trees would not be considered a significant impact as it would not conflict with the City of Santa Rosa Tree Ordinance. No permit shall be required for the removal of non-heritage trees. A permit will be required for any alteration, removal or relocation of heritage, protected or street trees. The project includes improvements in the vicinity of heritage trees that require special consideration during construction of the project to ensure avoidance of impacts to the tree root zones to prevent injury to the protected trees.

**Standard Conditions:** In accordance with Section 17-24.030(A)(4), the following relevant tree protection measures during construction shall be required as a condition of approval, as excerpted from Section 17-24.050 of the Tree Ordinance:

- Before the start of any clearing, excavation, construction or other work on the site, every protected tree shall be securely fenced off at the "protected perimeter," which shall be either the root zone or other limit as may be established by the Director of the City's Recreation and Parks Department. Such fences shall remain continuously in place for the duration of all work undertaken in connection with the development. The area so fenced off shall not be used as a storage area or altered or disturbed except as may be permitted under this subsection.

- If the proposed development, including any site work for the development, will encroach upon the protected perimeter of a protected tree, special measures shall be utilized, as approved by the Director of Recreation and Parks or designee, to allow the roots to obtain oxygen, water, and nutrients as needed. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter, if authorized at all by the Director, shall be minimized and subject to such conditions as may be imposed by the Director. No significant change in existing ground level shall be made within the drip line of a protected tree. No burning or use of equipment with an open flame shall occur near or within the protected perimeter. All brush, earth and other debris shall be removed in a manner which prevents injury to the protected tree.

- No oil, gas, chemicals or other substances that may be harmful to trees shall be stored or dumped within the protected perimeter of any protected tree, or at any other location on the site from which such substances might enter the perimeter of a protected tree. No construction materials shall be stored within the protected perimeter of a protected tree.

- Underground trenching for utilities shall avoid major support and absorbing tree roots of protected trees. If avoidance is impractical, tunnels shall be made below the roots. Trenches shall be consolidated to service as many units as possible. Trenching within the drip line of protected trees shall be avoided to the greatest extent possible and shall only be done under the on-site directions of a Certified Arborist.

- No concrete or asphalt paving shall be placed over the root zones of protected trees [selected for preservation]. No artificial irrigation shall occur within the root zone of oaks.
- No compaction of the soil within the root zone of protected trees [selected for preservation] shall occur.

With the implementation of the Standard Conditions described above, the project would not conflict with any local policies or ordinances. **(Less Than Significant Impact)**

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

The project is located within the Santa Rosa Plain, an area included in the Santa Rosa Plain Conservation Strategy. The project is mapped in an area of the Conservation Strategy with no effect on the three listed plant species or California tiger salamander. The project, therefore, will not conflict with any provisions of a habitat conservation plan and the impact of the project would be less than significant. **(Less Than Significant Impact)**

### 4.4.4 Conclusion

With the implementation of the mitigation measures outlined above, the proposed park project would have a less than significant impact on biological resources. **(Less Than Significant Impact With Mitigation)**

## 4.5 CULTURAL RESOURCES

The following discussion is based, in part, on an Archaeological Survey prepared by *Holman & Associates, Inc.* in January 2017. A copy of this report is on file with the Planning Division.

### 4.5.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5? | ☐ | ☐ | ☒ | ☐ | 1,7 |
| b) Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section15064.5? | ☐ | ☒ | ☐ | ☐ | 1,7 |
| c) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature? | ☐ | ☒ | ☐ | ☐ | 1,7 |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☒ | ☐ | ☐ | 1,7 |
| e) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | | |
| 1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or | ☐ | ☒ | ☐ | ☐ | 1,7 |
| 2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying this criteria, the significance of the resource to a California Native American tribe shall be considered. | ☐ | ☒ | ☐ | ☐ | 1,7 |

### 4.5.2 Existing Setting

Cultural resources are evidence of past human occupation and activity and include both historical and archaeological resources. These resources may be located above ground or underground and have significance in the history, prehistory, architecture, architecture of cultural of the nation, State of California, or local or tribal communities.

Paleontological resources are fossils, the remains or traces of prehistoric life preserved in the geologic record. They range from the well-known and well publicized (such as mammoth and dinosaur bones) to scientifically important fossils.

In this portion of Sonoma County, Native American sites have been identified on terraces next to creeks and often at the base of hills. The site is located in an area of high archaeological sensitivity as the project site is bisected by Kawana Springs Creek and is located at the base of Taylor Mountain. During the archaeological exploration of the site performed by *Holman & Associates* most of the project area was noted to contain fill. Layers of soil and alluvium were exposed as Kawana Springs Creek cut down into Holocene-age deposits. There is the potential for buried archaeological deposits and cultural materials within these stable alluvial deposits on the site. An archaeological resource that was previously discovered on-site in the northeastern area was identified as potentially eligible for the California Register of Historic Resources due to its potential to yield important information. Two flaked stone artifacts were identified south of Kawana Springs Creek and test pits were excavated, however, no other Native American artifacts were found.

The project site is not located in an area of high paleontological sensitivity. There are no historic structures on or adjacent to the project site.

#### 4.5.2.1 *Applicable Plans, Policies, and Regulations*

**Assembly Bill 52**

As of July 1, 2015, Lead Agencies are required to address a project's impacts on tribal cultural resources consistent with Assembly Bill (AB) 52. Public Resources Code section 21074 defines tribal cultural resources as:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

  a) Included or determined to be eligible for inclusion in the California Register of Historic Resources.
  b) Included in a local register of historical resources as defined in subdivision (k) of the Public Resources Code section 5020.1.

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

### 4.5.3 Applicable Plans, Policies, and Regulations

**City of Santa Rosa General Plan**

The General Plan includes policies for the purpose of avoiding or mitigating impacts resulting from development projects within the City. The following policies are specific to geological resources and are applicable to the proposed project.

| Policy | Description |
|---|---|
| Policy HP-A-1 | Review proposed developments and work in conjunction with Sonoma State University's Northwest Information Center to determine whether project areas contain known archaeological resources, either prehistoric and/or historic-era, or have the potential to contain such resources. |
| Policy HP-A-2 | Require that project areas found to potentially contain significant archaeological resources be examined by a qualified consulting archaeologist for recommendations concerning protection and preservation. |
| Policy HP-A-3 | If cultural resources are encountered during development, work shall be halted to avoid altering the materials and their context until a qualified consulting archaeologist and Native American representative (if appropriate) has evaluated the situation, recorded the identified cultural resources, and determined suitable mitigation measures. |
| Policy HP-A-4 | Consult with local Native American tribes to identify, evaluate and appropriately address cultural resources and tribal sacred sites through the development review process. |
| Policy HP-A-5 | Ensure that Native American human remains are treated with sensitivity and dignity and assure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. |

### 4.5.4 Impact Discussion

**a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines?**

The proposed project would result in the construction of a proposed park on a vacant property. The project site and adjacent properties do not contain listed historic resources as defined in Section 21084.1 of the California Environmental Quality Act. The project, therefore, would not result in impacts to historic resources. **(Less Than Significant Impact)**

**b) Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5 of the CEQA Guidelines?**

Based on archaeological records search and site survey completed by *Holman & Associates*, an archeological resource is located within the project site and was partially capped during construction of prior improvements in the area. Building a trail in the northeast area of the project site will increase pedestrian use and potentially jeopardize the uncapped portion of the archaeological resource.

**Impact CUL-1:** Construction of the proposed project, could result in significant impacts to archaeological resources that have been previously identified on-site. **(Significant Impact)**

**Mitigation Measures:** The following mitigation measures would reduce impacts to archaeological resources to a less than significant level:

**MM CUL-1.1:** Any construction work conducted within 50 feet of the mapped archaeological resource shall be monitored by a qualified archaeologist and Native American monitor from culturally affiliated Tribe(s).

**MM CUL-1.2:** To adequately cap the archaeological resource, fill and plants shall be added to open areas to protect the uncapped portions of the archaeological site. Construction drawings for the park and trail, including landscape plans, shall be reviewed by a qualified archaeologist and Native American monitor. A qualified archaeologist and Native American monitor shall actively be involved with hand excavating the holes for planting plants. Any obsidian encountered should be subjected to obsidian hydration analysis and visual sourcing, allowing documentation of the use of the archaeological resource.

**MM CUL-1.3:** Any proposed improvements that would require excavation into native soils (approximately two to four feet below grade) within 100 feet of the dripline of trees along the south side of Kawana Springs Creek would require presence/absence exploration prior to issuance of grading permits; the plan for such shall be prepared in consultation with culturally affiliated Tribe(s).

**MM CUL-1.4:** If evidence of an archaeological site or other suspected cultural resource as defined by CEQA Guideline section 15064.5, including darkened soil representing past human activity ("midden"), that could conceal material remains (e.g., worked stone, worked bone, fired clay vessels, faunal bone, hearths, storage pits, or burials) is discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the Director of Recreation and Parks and culturally affiliated Tribe(s) shall be notified. The Director of Recreation and Parks shall hire a qualified archaeologist and Native American monitor from the culturally affiliated Tribe(s) to conduct a field investigation. The Director of Recreation and Parks shall consult with culturally affiliated Tribe(s) and the archaeologist to assess the significance of the find. Impacts to any significant resources shall be mitigated to a less than significant level through avoidance, data recovery, or other methods consistent with the Secretary of the Interior's Standards for Archaeological documentation and determined adequate by a qualified archaeologist and through consultation with culturally affiliated Tribe(s). Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-J) form and filed with the NWIC.

**MM CUL-1.5:** If archaeological resources are identified, a final report summarizing the discovery of cultural materials shall be submitted to the Director of Recreation and Parks and culturally affiliated Tribe(s) prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented and its results, including a description of the monitoring and testing program, a list of the resources found and conclusion, and a description of the disposition/curation of the resources.

With the implementation of the mitigation measures above, impacts to archaeological resources would be less than significant. **(Less Than Significant Impact With Mitigation)**

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

The Santa Rosa General Plan 2035 EIR does not identify paleontological resources in the City. It is, therefore, not anticipated that there would be significant risk of discovery of or damage to paleontological resources resulting from the implementation of the proposed park project. Although it is unlikely that paleontological resources would be discovered during construction, the project would implement measures to ensure impacts to paleontological resources, if unearthed, would be less than significant.

**Impact CUL-2:** The project may encounter buried paleontological resources during site grading and construction. **(Significant Impact)**

**Mitigation Measures:** The project shall implement the following measures to ensure impacts to paleontological resources are reduced to a less than significant level:

**MM CUL – 2.1:** *Unique Paleontological and/or Geologic Features and Reporting*. Should a unique paleontological resource or site or unique geological feature be identified at the project site during any phase of construction, all ground disturbing activities within 25 feet shall cease and the Director of Recreation and Parks notified immediately. A qualified paleontologist shall evaluate the find and prescribe mitigation measures to reduce impacts to a less than significant level. Mitigation measures could include collection, recordation and analysis of any significant materials. The identified mitigation measures shall be implemented. Work may proceed on other parts of the project site while mitigation for paleontological resources or geologic features is carried out. Upon completion of the paleontological assessment, a report shall be submitted to the City and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

With the implementation of the mitigation measure above, impacts to paleontological resources would be less than significant. **(Less Than Significant Impact With Mitigation)**

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

No human remains are known to be present nor were any discovered on the property during the archaeological survey. However, due to the presence of archaeological resources that were discovered on the property, it is possible, although highly unlikely, that human remains could be inadvertently unearthed on the property.

**Impact CUL-3:** The project may encounter buried human remains during site grading. **(Significant Impact)**

**Mitigation Measures:** The project shall implement the following measures to ensure impacts to human remains are reduced to a less than significant level:

**MM CUL – 3.1**: *Human Remains.* If human remains are discovered at any project construction site during any phase of construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the Director of Recreation and Parks and the Sonoma County coroner shall be notified immediately, pursuant to Section 5097.98 of the Public Resources Code and Section 7050.5 of the Health and Safety Code. Further, consistent with Public Resources Code section 5097.98(b), human remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the remains are determined by the Sonoma County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains, and the MLD shall be notified. Within 48 hours of notification, the MLD may inspect the site of discovery and make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code section 5097.98.

The Director of Recreation and Parks shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the City and Most Likely Descendant, including methods for avoidance, excavation, and/or removal of the human remains. The City of Santa Rosa shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of State law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The City of Santa Rosa shall implement approved mitigation before the resumption of ground-disturbing activities within 100 feet of where the remains were discovered.

With the implementation of the mitigation measures above, impacts to human remains would be less than significant. **(Less Than Significant Impact With Mitigation)**

**e) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: (1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1.**

The City of Santa Rosa has initiated AB 52 tribal consultation by contacting the Lytton Rancheria and Federated Indians of Graton Rancheria, which had previously requested consultation, to seek input on the proposed Master Plan, CEQA analysis, and Archaeological Survey (as requested). An archaeological site is present within the project boundary and has been identified as potentially eligible for listing on the California Register of Historic Resources. The existing archaeological site, therefore, is being treated as a significant archaeological resource under CEQA and tribal cultural resource. The project includes mitigation measures to address the known tribal cultural resource on the site and potential for accidental discovery of tribal cultural resources during construction (refer to above Mitigation Measures CUL – 1.1 through CUL – 1.5 and CUL –3.1). For these reasons, the project would result in a less than significant impact to tribal cultural resources. **(Less Than Significant Impact With Mitigation)**

### 4.5.5 Conclusion

The proposed park project, with the implementation of Mitigation Measures CUL – 1.1 through CUL – 1.5, CUL – 2.1, and CUL – 3.1, would have a less than significant impact on cultural resources. **(Less Than Significant Impact With Mitigation)**

## 4.6 GEOLOGY AND SOILS

### 4.6.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | | |
| Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)? | ☐ | ☐ | ☒ | ☐ | 1 |
| Strong seismic ground shaking? | ☐ | ☐ | ☒ | ☐ | 1 |
| Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☒ | ☐ | 1 |
| Landslides? | ☐ | ☐ | ☒ | ☐ | 1 |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☒ | ☐ | 1 |
| c) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ☒ | ☐ | 1 |
| d) Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property? | ☐ | ☐ | ☒ | ☐ | 1 |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | ☐ | ☐ | ☒ | ☐ | 1 |

### 4.6.2 Existing Setting

The City of Santa Rosa lies within the northeastern portion of the Cotati Valley found along the Santa Rosa Plain and also includes part of the Sonoma Mountains to the east. The planning area can be characterized by three distinct topographic regimes: gently sloping alluvial plains, upland foothills, and low valleys. The City is situated at the confluence of Matanzas Creek and Santa Rosa Creek, both of which originate from the Sonoma Mountains to the east. The Santa Rosa Plain slopes gently towards the west, away from the uplands, towards the lowest elevations of Cotati Valley.

#### 4.6.2.1 *On-Site Geologic Conditions*

**Topography and Soils**

The topography in the project site is relatively flat, with the exception of Kawana Springs Creek, an intermittent stream that flows in a westerly direction through the project site. Elevations within the site range from approximately 245 feet above mean sea level (amsl) at the northeastern corner of the site to approximately 175 feet amsl at the western portion within the bed of Kawana Springs Creek. SoilWeb indicates that the project site contains two soil mapping units: Clear Lake clay, sandy substratum, with zero to two percent slopes; and Goulding-Toomes complex, with nine to 50 percent slopes.

**Seismicity and Seismic-Related Hazards**

The City of Santa Rosa lies adjacent to the Rodgers Creek Fault Zone and is approximately eight miles southeast of the Maacama Fault Zone and 20 miles northeast of the San Andreas Fault Zone. The Hayward-Rodgers Creek and San Andreas fault systems are two principally active, Bay Area strike-slip-type faults that have been responsible for historic earthquakes within the last 150 years. The Rodgers Creek fault is considered an extension of the Hayward fault and has experienced historic seismic events in 1969 and 1898. The Maacama Fault Zone experienced movement within the last 11,000 years and is capable of producing a maximum moment magnitude 7.1 earthquake. Other principal faults capable of producing ground shaking in Santa Rosa include the East Bay's Hayward, San Gregorio-Hosgri Fault Zone along the San Mateo Coast, the Calaveras fault, and Concord-Green Valley fault.

The project site is approximately 0.5 miles from the Rodgers Creek Fault Zone, 20 miles from the Macaama Fault, and 20 miles from the San Andreas Fault. Due to the proximity of the project site to these active or potentially active faults, ground shaking, ground failure, and/or liquefaction as a result of an earthquake could cause damage to structures on the site. An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the project site. Strong shaking during an earthquake can result in ground failure such as that associated with soil liquefaction, lateral spreading, and differential compaction. These seismic-related hazards are discussed below.

The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site.

<u>Liquefaction</u>

Liquefaction is the result of seismic activity and is characterized as the transformation of loose watersaturated soils from a solid state to a liquid state during ground shaking. The project site is located in an area of Santa Rosa with moderate potential for liquefaction.[2]

[2] ABAG, Resilience Program, *Liquefaction Susceptibility GIS Map*, Accessed October 25, 2018. Available at: http://gis.abag.ca.gov/website/Hazards/.

Lateral Spreading

Lateral spreading is a type of ground failure related to liquefaction. It consists of the horizontal displacement of flat-lying alluvial material toward an open area, such as the steep bank of a stream channel. The natural channel of Kawana Springs Creek through the project site may be subject to lateral spreading.

#### 4.6.2.2 *Landslides*

Landsliding due to static forces (not seismically induced) could occur in developed and undeveloped upland areas including Taylor and Bennett Mountains. Landslide potential increases in areas where construction activity, such as road building or grading for building sites, reduces slope support or in areas where residential development has led to ground saturation or removal of adequate lateral support. Over-steepened slopes, slope saturation in areas of heavy rainfall, and removal of slope vegetation can also increase landslide potential. Instability of existing slopes could expose people to rockfall hazards and property damage. Failure in cut slopes produced during grading could cause damage and disrupt construction projects. Landslides can damage building beyond repair by dislodging the structure from the foundation or causing collapse as the slope beneath fails and moves downslope. According to the General Plan, the project site is located near a landslide complex within Taylor Mountain Regional Park. Steep slopes with areas of relatively unstable rock are also present south of Kawana Terrace.

#### 4.6.2.3 *Applicable Plans, Policies, and Regulations*

**Alquist-Priolo Earthquake Fault Zoning Act**

The Alquist-Priolo Earthquake Fault Zoning Act regulates development in California near known active faults due to hazards associated with surface fault ruptures. The Earthquake Fault Zones indicate areas with potential surface fault-rupture hazards. Areas within the Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault. The project site is not located in an Alquist-Priolo Earthquake Fault Zone.

**California Building Code**

The California Building Code prescribes a standard for constructing safer buildings throughout the State of California. It contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, strength of the ground, and distance to seismic sources. The Code is renewed on a triennial basis every three years; the current version is the 2016 Building Standards Code.

**City of Santa Rosa General Plan**

The General Plan includes policies for the purpose of avoiding or mitigating impacts resulting from development projects with the City. The following policies are specific to geological resources and are applicable to the proposed project.

| Policy | Description |
|---|---|
| Policy NS-C-1 | Prior to development approval, require appropriate geologic studies to identify fault trace locations within active fault zones as designated by the provisions of the Alquist-Priolo Earthquake Fault Zoning Act. California registered geologists or engineers must conduct these studies and investigation methodologies must comply with guidelines set forth by the Alquist-Priolo Earthquake Fault Zoning Act. |
| Policy NS-C-2 | Require comprehensive geotechnical investigations prior to development approval, where applicable. Investigations shall include evaluation of landslide risk, liquefaction potential, settlement, seismically-induced land sliding, or weak and expansive soils. Evaluation and mitigation of seismic hazards, including ground shaking, liquefaction, and seismically-induced landslides, shall comply with guidelines set forth in the most recent version of the California Division of Mines and Geology (CDMG) Special Publication 117. |

### 4.6.3 Impact Discussion

**a, c) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) rupture of a known earthquake fault, ii) strong seismic ground shaking, iii) seismic-related ground failure, or iv) landslides? Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

**Surface Fault Rupture and Seismic Shaking**

The project site is located in a seismically active region of California and strong ground shaking would be expected during the lifetime of the proposed project. The closest active fault is the Rodgers Creek Fault, located approximately 0.5 miles northeast of the site. Because of the proximity of the Rodgers Creek Fault, there is a high probability that seismic ground shaking will affect the project site during the life of the structures.

There are no known active faults traversing the project site and the site is not located in an Alquist-Priolo Earthquake Fault Zone. Potential for surface rupture from displacement or fault movement directly beneath the proposed project is considered low. **(Less Than Significant Impact)**

**Landslides**

The site is adjacent to Taylor Mountain Regional Park and Open Space Preserve. According to the General Plan Geologic and Seismic Hazards Map, the site is located near a Landslide Complex, suggesting a previous slope failure in the area and steep slopes with areas of relatively unstable rock south of Kawana Terrace. The project would not disturb known landslide deposits or result in off-site landslide. No structures are proposed in the vicinity of steep slopes south of Kawana Terrace and users of the site would not be subject to substantial risk related to landslide hazards. **(Less Than Significant Impact)**

**Liquefaction and Lateral Spreading**

Liquefaction typically occurs in areas underlain with loose saturated cohesionless soils within the upper 50 feet of subsurface materials. These soils, when subjected to ground shaking, can lose their strength resulting from the buildup of excess pore water pressure causing them to behave closer to a liquified state. The project site is located in an area with moderate potential for liquefaction.

The project site is located in a relatively flat area and would not be exposed to substantial lateral spreading. Planned structures within the park are setback from Kawana Springs Creek and would not be affected by lateral spreading. The project site is relatively flat to gently sloping and would not cause slope instability or substantial erosion. Dewatering is not required for the construction of the project. **(Less Than Significant Impact)**

**b, d) Result in substantial soil erosion or the loss of topsoil? Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?**

The project shall be constructed in accordance with the standard engineering practices in the California Building Code, as adopted by the City of Santa Rosa. Additionally, General Plan Policies NS-C-1 through NS-C-4 generally restrict development in areas of high hazards and require geotechnical investigations to evaluate potential hazards and provide recommendations to mitigate. Therefore, potential impacts from the presence of locally compressible and potentially expansive soils on the site would be less than significant. **(Less Than Significant Impact)**

**e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

The project does not propose the use of septic tanks or alternative wastewater disposal systems as the project site is currently served with sanitary service provided by the City of Santa Rosa. **(No Impact)**

### 4.6.4 Conclusion

The project would not result in significant geology and soil impacts. **(Less Than Significant Impact)**

## 4.7 GREENHOUSE GAS EMISSIONS

### 4.7.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ☒ | ☐ | 1,5,8 |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☒ | ☐ | 1,8 |

### 4.7.2 Existing Setting

This section provides a general discussion of global climate change and focuses on emissions from human activities that alter the chemical composition of the atmosphere. Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the earth and changes in weather patterns. The principal GHGs contributing to global warming include $CO_2$, methane, nitrous oxide, and fluorinated compounds. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, manufacturing, utility, and agricultural sectors.

The project site is currently undeveloped and therefore does not contribute to global GHG emissions.

#### 4.7.2.1 *Applicable Plans, Policies, and Regulations*

**Senate Bill 32**

BAAQMD adopted GHG emissions thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD has determined that GHG emissions would cause significant environmental impacts. The GHG emissions thresholds identified by BAAQMD are 1,100 metric tons (MT) of $CO_2e$ per year or 4.6 MT $CO_2e$ per service population per year for development through 2020. A project that is in compliance with the City's Climate Action Plan (a qualified GHG Reduction Strategy) is considered to have a less than significant GHG impact regardless of its emissions.

CARB has completed a Scoping Plan, which will be utilized by BAAQMD to establish the 2030 GHG efficiency threshold. BAAQMD has yet to publish a quantified GHG efficiency threshold for 2030. For the purposes of this analysis, however, a Substantial Progress efficiency metric of 2.6 MT $CO_2e$/year/service population has been calculated for 2030 based on the GHG reduction goals of SB 32 and Executive Order B-30-15, taking into account the 1990 inventory and the projected 2030 statewide population and employment levels.

## Bay Area 2017 Clean Air Plan

Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards would be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

## Climate Action Plan

In June 2012, the City of Santa Rosa adopted a comprehensive Climate Action Plan (CAP), the purpose of which was to present measures which would reduce local greenhouse gas emissions, to meet state, regional, and local reduction targets, and to streamline future environmental review of projects within Santa Rosa by following the CEQA Guidelines and meeting the BAAQMD expectations for a Qualified GHG Reduction Strategy.

The CAP is intended to achieve the City's fair share of statewide emissions reductions by the year 2020 consistent with AB 32, the Global Warming Solutions Act. It specifies the strategies and measures to be taken for a number of topic areas (energy and conservation, renewable energy, parking and land use management, waste reduction, recycling & composting, water and wastewater, etc.) citywide to achieve the overall emission reduction target, and reflect a diverse mix of regulatory and incentive-based programs for both new and existing development.

CEQA clearance for all discretionary development proposals are required to address the consistency of individual projects with reduction measures in the CAP and goals and policies in the General Plan designed to reduce GHG emissions. Compliance with appropriate measures in the CAP would ensure an individual project's consistency with the adopted GHG reduction plan. Projects that are consistent with the CAP would have a less than significant impact related to GHG emissions.

## City of Santa Rosa General Plan 2035

The CAP and the General Plan work in conjunction to facilitate GHG emissions reductions. Measures, policies and projects that reduce community-wide GHGs presented in the CAP are aligned with the goals and policies in the General Plan. In addition, the General Plan provides the basis for analyzing proposed development to determine consistency with the CAP goals and measures. The measures presented in the CAP are referenced generally
throughout the General Plan, although the following policy contained in the General Plan explicitly references the CAP:

*Policy OSC-M-1* Meet local, regional and state targets for reduction of greenhouse gas emissions through implementation of the Climate Action Plan.

### 4.7.3 Impact Discussion

**a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Greenhouse gas emissions worldwide contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single land use project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in Santa Rosa, the entire state of California, and across the nation and around the world, contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts.

Per CEQA Guidelines section 15064 (b), a Lead Agency may analyze and mitigate significant GHG emissions in a plan for the reduction of GHG emissions that has been adopted in a public process following environmental review. The City of Santa Rosa adopted its CAP (a GHG reduction strategy) in 2012 which is in conformance with its most recent General Plan Update. The City's projected emissions and the CAP are consistent with measures necessary to meet statewide 2020 goals established by AB 32 and addressed in the Climate Change Scoping Plan. The threshold of significance for whether a development project in the City of Santa Rosa would generate GHG emissions that would have a significant impact on the environment, therefore, would be whether or not the project conforms to the applicable reduction measures the City's CAP.

Greenhouse gas emissions from the proposed project would include emissions from construction and operation of the project. The GHG emissions from the project would include:

- Construction emissions;
- Emission from the manufacture and transport of building materials;
- Mobile emissions (e.g., emissions from combustion of fossil fuels for vehicle trips to and from the site); and
- Emissions from the generation of electricity to operate lighting on the site.

#### 4.7.3.1 *Operational Greenhouse Gas Emissions*

The project consists of a community park that includes paved parking areas, restrooms/hydration stations, a community garden, picnic areas, sports courts, a multi-use turf area, and a network of interconnected trails with interpretive signage and fitness stations.

The proposed project would implement the following Green Building measures to reduce GHG emissions:

- Reduce light pollution through project design;
- Include low-flow water fixtures to reduce potable water use, and
- Use water efficient landscaping and reclaimed water for irrigation, where feasible.

The proposed park site acreage is substantially below the 600-acre BAAQMD threshold for potentially significant GHG emissions in 2020. Assuming that threshold is further reduced by 40 percent to meet the SB 32 emissions reduction requirements in 2030, a park of 360 acres may

potentially result in significant GHG emissions. The proposed 19.2-acre park, most of which would remain undeveloped, is substantially below the size of a City park with potentially significant GHG emissions and, therefore, the GHG emissions of the proposed project would be less than significant. **(Less Than Significant Impact)**

#### 4.7.3.2 *Construction Greenhouse Gas Emissions*

GHG emissions would occur during grading of the site and construction of the project. Construction of the project would involve emissions associated with equipment, vehicles, and manufacturing materials used to construct the project.

The project site currently is vacant and would, therefore, does not generate demolition and construction waste. Project construction would have a minimum waste diversion rate of 50 percent, consistent with the Sonoma County Waste Management Agency's construction and demolition debris diversion program requirements.

The project site is an infill site located in an urbanized location near construction supply and equipment companies, which would help to minimize GHG emissions generated by transport of construction materials and waste associated with the project.

Neither the City of Santa Rosa nor BAAQMD have quantified thresholds for construction activities. Given that the project is in an urban setting close to companies that provide construction supplies and equipment, discarded materials would be salvaged or recycled, and the project would implement the best management practices outlined in *Section 4.3 Air Quality*, construction of the project would not contribute substantially to local or regional GHG emissions. **(Less Than Significant Impact)**

### *b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

**Plans, Policies, and Regulations**

As described previously, the CAP was adopted in June 2012. The CAP identifies a series of GHG emissions reduction measures that would allow the City to achieve its GHG reduction goals. The measures center around nine topic areas:

- Energy Efficiency and Conservation;
- Renewable Energy;
- Parking and Land Use Management
- Improved Transport Options
- Optimized Vehicular Travel
- Waste Reduction, Recycling, Composting
- Water and Wastewater
- Transportation and Land Use
- Urban Heat Island Effect.

Of these nine topic areas, three are applicable to development projects such as the proposed community park. The project's conformance with applicable reduction measures are discussed below.

Energy Efficiency and Conservation

*Measure 1.1: CALGreen Requirements for New Construction*

Measure 1.1 calls for the continued enforcement and requirement of new development to meet Tier 1 CALGreen requirements, as amended, for new non-residential development. The proposed project would conform to these requirements for the proposed restroom/hydration station.

*Measure 1.4: Tree Planting and Urban Forestry*

Measure 1.4 requires the planting and maintenance of trees on private property, streets and open space areas. This is applicable to the proposed community park, which will include the planting of new trees.

*Measure 1.5: Cool Roofs and Pavements*

Measure 1.5 requires new sidewalks, crosswalks, and parking lots to be made of cool paving materials with a high solar reflectivity. The project includes the construction of paved parking lots that will conform to this requirement.

Parking and Land Use Management

*Measure 3.2: Diversity and Destination Accessibility*

Measure 3.2 recommends planning for a variety of complimentary land uses within walking distance of each other, such as housing, neighborhood-serving retail, and recreational facilities, to decrease the need for vehicular travel. The project, which proposes the development of a community park, is consistent with this measure. The future park is intended to serve the surrounding community, and provides pedestrian links between adjacent neighborhoods as well as recreational facilities.

Water and Wastewater

*Measure 7.1: Water Conservation*

Measure 7.1 seeks to continue to require and incentivize water conservation. The project is consistent with this measure in that it will incorporate water-efficient landscaping and irrigation equipment.

The project is consistent with the CAP and would not preclude the City from reaching its GHG emissions reduction goals. Operation of the proposed project would have a less than significant GHG emissions impact. **(Less Than Significant Impact)**

### 4.7.4 Conclusion

Construction activities would have a less than significant short-term GHG impact. **(Less Than Significant Impact)**

The design of the project and implementation of the green building measures would ensure conformance to the CAP and reduce operational GHG emissions to a less than significant level. **(Less Than Significant Impact)**

## 4.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based upon an EDR Radius Map Report prepared in December 2016 and attached as Appendix B of this Initial Study.

### 4.8.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ☒ | ☐ | 1 |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☒ | ☐ | 1 |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☒ | ☐ | 1 |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment? | ☐ | ☐ | ☒ | ☐ | 1,9 |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ | 1,2,10 |
| f) For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ | 1,2 |
| g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ | 1,11 |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☒ | ☐ | 1,2 |

### 4.8.2 Existing Setting

#### 4.8.2.1 *Background*

Hazardous materials encompass a wide range of substances, some of which are naturally-occurring and some of which are man-made. Examples include motor oil and fuel, metals (e.g., lead, mercury, arsenic), asbestos, pesticides, herbicides, and chemical compounds used in manufacturing and other activities. A substance may be considered hazardous if, due to its chemical and/or physical properties, it poses a substantial hazard when it is improperly treated, stored, transported, disposed of, or released into the atmosphere in the event of an accident. Determining if such substances are present on or near project sites is important because exposure to hazardous materials above regulatory thresholds can result in adverse health effects on humans, as well as harm to plant and wildlife ecology.

#### 4.8.2.2 *Site Conditions*

**Current Uses**

The approximately 19.2-acre park site is undeveloped and bisected by Kawana Springs Creek. The site contains lush riparian vegetation along Kawana Springs Creek and a narrow trail paved by site visitors that weaves adjacent to the creek.

**Historic Uses and Known Contamination**

According to the 1942 aerial photograph of the property, the project site has remained undeveloped. No known contamination has been recorded on the property.

**On-Site Sources of Contamination**

A regulatory database records review found no records pertaining to underground storage tanks (USTs), toxic releases, or site cleanup requirements located on the project site.[3]

**Off-Site Sources of Contamination**

A regulatory database records review identified one cleanup program case within 1,000 feet of the project site. The cleanup program site was related to a gasoline leak that was discovered in 2001. The cleanup program site does not pose a risk to the project site due to the regulatory "closed" status as of 2004.

#### 4.8.2.3 *Other Hazards*

**Airports**

The Charles M. Schulz-Sonoma County Airport is located approximately 10 miles northwest of the project site. The project site is not within the Airport Influence Area (AIA) for the Sonoma County Airport.

[3] EDR Radius Map Report with Geocheck, December 12, 2016.

### Wildland Fire Hazards

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone Map, the project site is not located in a fire hazard zone or the Wildland Urban Interface. However, the project site is located northwest of Taylor Mountain Regional Park and Open Space Preserve, which is defined as having moderate fire hazard severity.[4]

#### 4.8.2.4 *Applicable Plans, Policies, and Regulations*

### Resources Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), initially authorized in 1976, gives the U.S. EPA the authority to control hazardous waste from "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled the U.S. EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

### Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) regulates hazardous waste, remediation of existing contamination, and evaluates procedures to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning. From these laws and regulations, DTSC develops guidelines and regulations that define what those who handle hazardous waste must do to comply with the laws. These rulemakings are subject to public review and comment.

### Government Code Section 65962.5 (Cortese List)

Section 65962.5 of the Government Code requires the California Environmental Protection Agency to develop and update (at least annually) a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by the State, local agencies, and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC), State Water Resources Control Board (SWRCB), and the Department of Resources Recycling and Recovery (CalRecycle).

Based on a regulatory records search, the project site is not included on the hazardous materials sites list compiled per Government Code Section 65962.5.

[4] CAL FIRE, Sonoma County Fire Hazard Severity Map in State Responsibility Area, November 7, 2007.

### 4.8.3 Impact Discussion

**a, b, d) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to [Government Code Section 65962.5] and, as a result, would it create a significant hazard to the public or the environment?**

**Soil and Groundwater Contamination**

A discussed in Section 4.8.2.2, *On-Site Sources of Contamination,* there are no regulatory agency records or evidence of hazardous materials usage on the project site. The project would, therefore, not result in the exposure of construction workers or future site users to significant levels of hazardous materials. **(Less Than Significant Impact)**

As discussed in Section 4.8.2.2, *Off-Site Sources of Contamination,* a regulatory database records review identified one cleanup program site within 1,000 feet of the project site. The cleanup program site identified in the regulatory database records review does not pose a risk to the project site, because of its distance from the project site, its current "closed" regulatory status, and/or the direction of groundwater flow from the contamination site. **(Less Than Significant Impact)**

**Cortese List**

Based on a regulatory records search, the project site is not included on the hazardous materials sites list compiled per Government Code Section 65962.5. **(Less Than Significant Impact)**

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

Sonoma Academy is located approximately 800 feet northeast of the project site. Future park uses would not emit hazardous wastes on-site, which would therefore not impact the school. The proposed park users would not use significant quantities of hazardous materials that would have an impact on Sonoma Academy. **(Less Than Significant Impact)**

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

The proposed project site is approximately 10 miles southeast of the Charles M. Schulz-Sonoma County Airport and is not located within the Airport Influence Area (AIA).[5] The project site is not located in the vicinity of a private airstrip. Therefore, private airstrip uses would not be a hazard to people working or residing on the project site. **(No Impact)**

**g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?**

The project would not interfere with an adopted emergency response plan or emergency evacuation plan. The park would provide access to emergency vehicles via Kawana Springs Road and Kawana Terrace. **(No Impact)**

**h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

The project site is not located in a fire hazard zone but is located within the Wildland Urban Interface.[6] The project site is also located adjacent to Taylor Mountain Regional Park and Open Space Preserve, which is defined as having moderate fire hazard severity. Given the daytime use of park facilities and its location outside of a mapped fire hazard severity zone, park users would not be subject to significant risk related to wildland fires. **(Less Than Significant Impact)**

### 4.8.4 Conclusion

The project would not result in significant impacts related to hazards and hazardous materials. **(Less than Significant Impact)**

[5] County of Sonoma, Charles M. Schulz Sonoma County Airport Master Plan, July 2011.
[6] ABAG, Resilience Program, *Wildland Urban Interface GIS Map*, October 25, 2018, http://gis.abag.ca.gov/website/Hazards/.

## 4.9 HYDROLOGY AND WATER QUALITY

### 4.9.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Violate any water quality standards or waste discharge requirements? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on-or off-site? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on-or off-site? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| e) Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| f) Otherwise substantially degrade water quality? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☐ | ☒ | 1,11 |
| h) Place within a 100-year flood hazard area structures which will impede or redirect flood flows? | ☐ | ☐ | ☐ | ☒ | 1,11 |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☒ | ☐ | 1,11 |
| j) Inundation by seiche, tsunami, or mudflow? | ☐ | ☐ | ☒ | ☐ | 1 |

### 4.9.2 Existing Setting

#### 4.9.2.1 *Applicable Plan, Policies, and Regulations*

**Federal and State Laws and Regulations**

The 1972 Federal Water Pollution Control Act (Clean Water Act) and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality. Regulations set forth by the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board have been developed to fulfill the requirements of this legislation. EPA's regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by water quality control boards, which for the Santa Rosa area is the North Coast Regional Water Quality Control Board (RWQCB). The RWQCB is also tasked with preparation and revision of a regional Water Quality Control Plan, also known as the Basin Plan. The Basin Plan identifies beneficial uses, which the Regional Board has specifically designated for local aquifers, streams, marshes, rivers, and the Bay, as well as the water quality objectives, and criteria that must be met to protect these uses. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to control water quality and protect beneficial uses.

Under Section 303(d) of the Clean Water Act, states are required to identify impaired surface water bodies and develop total maximum daily loads (TMDLs) for contaminants of concern. The TMDL is the quantity of pollutant that can be safely assimilated by a water body without violating water quality standards. Listing of a water body as impaired does not necessarily suggest that the water body cannot support the beneficial uses; rather, the intent is to identify the water body as requiring future development of a TMDL to maintain water quality and reduce the potential for future water quality degradation. The Russian River watershed in the vicinity of the project site is listed by the U.S. Environmental Protection Agency as an impaired water body.

**NPDES General Permit for Construction Activity**

The State Water Resources Control Board (State Water Board) has implemented an NPDES General Construction Permit for the State of California. Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit – Order 2009-0009-DWQ). Construction activity subject to this permit includes clearing, grading, and ground disturbances such as stockpiling or excavation. In order to obtain coverage under the Construction General Permit, a Notice of Intent (NOI) must be filed with the RWQCB, and Storm Water Pollution Prevention Plan (SWPPP) must be developed by a certified Qualified SWPPP Developer (QSD) prior to commencement of construction.

Once grading begins, the SWPPP must be kept on-site and updated as needed while construction progresses. The SWPPP details the site-specific Best Management Practices (BMPs) to control erosion and sedimentation and maintain water quality during the construction phase. The SWPPP also contains a summary of the structural and non-structural BMPs to be implemented during the

post-construction period, pursuant to the stormwater control practices and procedures encouraged by the City of Santa Rosa and the RWQCB.

### Municipal Stormwater Permitting Program

Stormwater discharges in California are regulated through federal NPDES permits. The RWQCB's Municipal Storm Water Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Pursuant to the Clean Water Act, section 402(p), stormwater permits are required for discharges from an MS4 serving a population of 100,000 or more. The Municipal Storm Water Program manages the Phase I Permit Program (serving municipalities over 100,000 people), the Phase II Permit Program (for municipalities less than 100,000), and the Statewide Storm Water Permit for the State of California Department of Transportation. The State Water Board and Regional Water Quality Control Boards implement and enforce the Municipal Storm Water Program.

### Phase I Program

There is one Phase I MS4 permit in the North Coast Region, Order No. R1-2015-0030. This permit regulates the discharge of pollutants from the City of Santa Rosa, as well as portions of unincorporated County of Sonoma, Sonoma County Water Agency, the City of Cotati, the City of Cloverdale, the City of Healdsburg, the City of Rohnert Park, the City of Sebastopol, the City of Ukiah, and the Town of Windsor.

The Phase 1 MS4 permit (Permit) mandates that the co-permittees use their planning and development review authority to require that stormwater post-construction Best Management Practices (BMPs) be included in private and public new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface.

The Permit requires regulated projects to incorporate Low Impact Development (LID) practices, which are intended to reduce runoff and mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source. LID employs principles such as preserving and recreating natural landscape features and minimizing imperviousness to create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain gardens, bioretention units, bioswales, and planter/tree boxes. The Permit also requires that stormwater treatment measures are properly installed, operated and maintained.

Hydromodification is a change in stormwater runoff characteristics from a watershed caused by changes in land use conditions (i.e., urbanization) that alter the natural cycling of water. Changes in land use conditions can cause runoff volumes and velocity to increase which can result in a decrease in natural vegetation, changing of river/creek bank grades, soil compaction, and the creation of new drainages. In addition to runoff water quality controls, the Permit requires regulated projects to include measures to control hydromodification impacts where the project would otherwise cause increased erosion, silt pollutant generation, or other adverse impacts to local rivers and creeks.

**Non-Storm Water Best Management Practices (BMP) Plans**

Each Co-Permittee, including Santa Rosa, has developed a draft Non-Storm Water BMP Plan (BMP Plan) to eliminate or minimize the discharge of pollutants to the MS4 related to select types of discharges. The discharges are allowable non-storm water discharges, provided they meet all required conditions in the MS4 Order, are not a significant source of pollutants, and are conducted as specified in the Co-Permittee's approved BMP Plan.

#### 4.9.2.2 *Hydrology and Water Quality*

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as non-point source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Urban stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

Under existing conditions, the project site is undeveloped, and does not generate any runoff. The project site is approximately 204 feet above sea level.

#### 4.9.2.3 *Groundwater*

The project region is largely underlain by alluvial deposits known as the Glen Ellen Formation. The gravels, sands, and silts, of this formation are the principle water-bearing units of the region. The relatively permeable materials of the Glen Ellen Formation provide the means for recharge of the aquifer from storm events and surface water infiltration.[7]

#### 4.9.2.4 *Flooding*

The project site is located within a 100-year and 500-year flood hazard area. According to the Federal Emergency Management Agency (FEMA), the project site is located in Zone AE which is an area where the floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the one percent annual chance flood can be carried without substantial increases in flood heights.[8]

#### 4.9.2.5 *Dam Failure*

Based on the Sonoma County Dam Failure Inundation map,[9] the project site is not located in a dam failure inundation hazard zone.

[7] City of Santa Rosa, Santa Rosa General Plan 2035 Draft Environmental Impact Report, March 2009.
[8] FEMA, *Flood Insurance Rate Map 06097C0737F*, October 16, 2012.
[9] County of Sonoma, Permit and Resource Management Department, *Sonoma County Hazard Mitigation Plan*, September 20, 2011, Figure 8.7 Dam Failure Inundation, https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/Hazard-Mitigation/Dam-Failure-Inundation-Map/.

#### 4.9.2.6 *Seiches, Tsunamis, and Mudflows*

A seiche is an oscillation of the surface of a lake or landlocked sea varying in period from a few minutes to several hours. There are no landlocked bodies of water near the project site that, in the event of a seiche, would affect the site.

A tsunami or tidal wave is a series of water waves caused by the displacement of a large volume of water in a large body of water, such as an ocean or a large lake. Due to the immense volumes of water and energy involved, tsunamis can devastate coastal regions. There are no large bodies of water near the project site and the site does not lie within a tsunami inundation area.[10]

A mudflow is the rapid movement of a large mass of mud formed from loose soil and water. The project area is relatively flat to generally sloping and would not be a source of off-site mudflows.

#### 4.9.2.7 *Existing Drainage Patterns*

The project site contains approximately 0.61 acre of stormwater retention basins located in the northeastern portion of the site. Two stormwater basins exist within the project site, including a linear feature in the northeastern corner of the project site, which appears to flow into a secondary roughly rectangular basin to the west. Stormwater retention basins within the project site are considered exempt per the Clean Water Act as they meet the definition of stormwater control features constructed to convey, treat or store stormwater that are created in dry land.

**Wetlands and Waters of the U.S.**

The project site contains three mitigation seasonal wetlands, totaling approximately 0.99 acre within the northern portion of the Study Area, north of Kawana Springs Creek. These mitigation wetlands were constructed in the Summer and Fall of 2007 as mitigation for impacts to jurisdictional wetlands associated with three Kawana Springs subdivision projects. The wetlands were designed to be inundated and/or saturated by direct precipitation and augmented by treated runoff from a bio-swale immediately east of the mitigation wetlands, and a stormwater retention basin directly west of the mitigation wetlands. All three mitigation wetlands appeared to be functioning as wetlands during a December 2016 site visit, as evidenced by observed saturation and/or inundation and dominance of hydrophytic vegetation within the wetland features. Areas mapped as mitigation seasonal wetlands are considered jurisdictional under Section 404 of the Clean Water Act.

### 4.9.3 <u>Impact Discussion</u>

**a) Violate any water quality standards or waste discharge requirements?**

Stormwater runoff from impervious surfaces such as rooftops, paved streets or parking lots can carry with it pollutants such as oil, pesticides, herbicides, sediment, trash, nutrients, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Urban areas commonly include large impervious cover which contributes to an increase in runoff flow, velocity and volume. As a result, streams are hydrologically impacted through streambed and channel scouring, instream sedimentation and loss of aquatic and riparian habitat. In addition to hydrological impacts, large

[10] California Emergency Management Agency, *Tsunami Inundation Map for Emergency Planning San Francisco Bay Area*, June 15, 2009, http://www.conservation.ca.gov.

amounts of impervious cover contribute to greater pollutant loading, resulting in turbid water, nutrient enrichment, bacterial contamination, and increased temperature and trash.

### Construction Water Quality Impacts

Construction of the proposed park improvements would involve minor excavation and grading activities at the project site. These construction activities could degrade water quality in local creeks, Kawana Springs Creek in particular, because stormwater runoff from the site could discharge directly into Kawana Springs Creek, southwest of the site. Construction activities would generate dust, sediment, litter, oil, paint, and other pollutants that could temporarily contaminate runoff from the site.

The following project-specific measures, based on RWQCB Best Management Practices (BMPs), have been included in the project to reduce construction-related water quality impacts. All measures will be implemented prior to the start of earthmoving activities on-site and will continue until the construction is complete.

- Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities shall be suspended during periods of high winds.
- All exposed or disturbed soil surfaces shall be watered at least twice daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered.
- All trucks hauling soil, sand, and other loose materials shall be required to cover all trucks or maintain at least two feet of freeboard.
- All paved access roads, parking areas, staging areas and residential streets adjacent to the construction sites shall be swept daily (with water sweepers).
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- All unpaved entrances to the site shall be filled with rock to knock mud from truck tires prior to entering City streets. A tire wash system may also be employed at the request of the City.
- Prior to construction grading for the proposed land uses, the project proponent will file an NOI to comply with the General Construction Permit and prepare a SWPPP which addresses measures that would be included in the project to minimize and control construction and post-construction runoff. Measures will include, but are not limited to, the aforementioned RWQCB BMPs.
- The certified SWPPP will be posted at the project site and will be updated to reflect current site conditions.
- When construction is complete, a Notice of Termination for the General Permit for Construction will be filed with the RWQCB and the City of Santa Rosa. The NOT will document that all elements of the SWPPP have been executed, construction materials and waste have been properly disposed of, and a post-construction storm water management plan is in place as described in the SWPPP for the site.

**Post-Construction Water Quality Impacts**

Implementation of the proposed project would result in a slight increase in stormwater runoff due to an increase in impermeable surfaces compared to existing conditions. Runoff from the proposed rooftops, hardscape (sports courts, picnic areas) and parking areas could carry fine sediment, grease, oil, and trace amounts of heavy metals into natural drainages and ultimately into the local creeks.

The proposed project will add or replace more than 10,000 square feet of impervious surfaces, thus it must conform to the site design and treatment requirements of the Phase I MS4 Permit. Plans will be certified by engineers to ensure incorporation of appropriate and effective site design, source control, and Low Impact Development (LID) treatment controls to reduce post-construction runoff volumes and remove pollutants from runoff entering the storm drainage system. The project will be required to maintain all post-construction treatment control measures throughout the life of the project.

The following measures, based on RWQCB BMPs and City requirements, are included in the proposed project to ensure compliance with NPDES permit requirements to reduce post-construction water quality impacts.

Required Post-Construction Measures

- All post-construction Treatment Control Measures (TCMs) will be installed, operated, and maintained by qualified personnel. On-site inlets will be cleaned out at a minimum of once per year, prior to the wet season.
- The property owner/site manager will keep a maintenance and inspection schedule and record to ensure the TCMs continue to operate effectively for the life of the project. Copies of the schedule and record must be made available for inspection on-site at all times.

With implementation of the required construction and post-construction BMPs and TCMs, the project would not violate any adopted water quality standards or waste discharge requirements. Installation and maintenance of the proposed stormwater treatment systems would result in a less than significant impact on water quality. **(Less Than Significant Impact)**

**b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?**

The project site is not located within a designated groundwater recharge area. Implementation of the proposed community park project would not substantially increase the amount of impervious surface area on the site, or otherwise interfere with the infiltration of precipitation, nor would it interrupt surface or subsurface flow. Therefore, the project would not deplete or interfere with groundwater recharge. **(Less Than Significant Impact)**

**c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on-or off-site?**

The project does not propose substantial amounts of grading or alteration of existing natural contours or drainage courses on the site, and would therefore not alter the existing drainage pattern of the site or area. Potential erosion and/or siltation impacts to Kawana Springs Creek and other off-site waterways would be reduced to less than significant levels by implementation of construction BMPs and installation and maintenance of post-construction site design, source control and treatment control measures. **(Less Than Significant Impact)**

**d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on-or off-site?**

The project does not propose substantial amounts of grading or alteration of existing natural contours or drainage courses on the site, and would therefore not substantially alter the existing drainage pattern of the site or area. The proposed trail would cross an existing stormwater retention basin and would be designed to avoid substantial effects on its retention capacity. The project would only incrementally increase the amount of impervious surface area on the site, resulting in a very minor increase in stormwater runoff which would not result in on- or off-site flooding. **(Less Than Significant Impact)**

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

The proposed community park project would create a slight increase in impervious surface area on the site, which in turn would generate a slight increase in stormwater runoff over the existing condition. Implementation of post-construction LID-based stormwater runoff TCMs would reduce the volume and pollutant load of project-generated runoff from the site. **(Less Than Significant Impact)**

**f) Otherwise substantially degrade water quality?**

The City of Santa Rosa will comply with any required regional, state and federal permitting standards or mitigation requirements regarding potential impacts to mapped intermittent stream, riparian wetland and seasonal wetland areas on the site. **(Less Than Significant Impact)**

**g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

The project site does include mapped portions of the 100-year flood hazard area. However, no housing is proposed with the project. **(No Impact)**

**h) Place within a 100-year flood hazard area structures which will impede or redirect flood flows?**

No buildings or other structures that could potentially impede or redirect flood flows are proposed within the mapped 100-year flood hazard area on the site. **(No Impact)**

**i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

The mapped 100-year flood hazard zone on the project site is primarily contained within the channel of Kawana Springs Creek. A limited area of the flood zone extends into the oak woodland areas on the western portion of the site near the planned community garden; however, the project does not propose any improvements in this area. It is therefore unlikely that the project presents a significant risk of loss, injury or death involving flooding. **(Less Than Significant Impact)**

**j) Result in inundation by seiche, tsunami, or mudflow?**

The topography of the project site is relatively flat to gently sloping, and the location is far from the ocean or any major lake or reservoir. Therefore, the project is unlikely to result in inundation by seiche, tsunami or mudslide. **(Less Than Significant Impact**)

### 4.9.4 Conclusion

With implementation of the construction BMPs and post-construction site design, source control and treatment control TCMs included in the project, potential impacts to water quality would be reduced to a less than significant level. **(Less Than Significant Impact)**

The proposed project would not result in substantial adverse drainage or flooding impacts. **(Less Than Significant Impact)**

## 4.10 LAND USE AND PLANNING

### 4.10.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ | 1,2 |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☒ | ☐ | 1,2,3 |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☒ | ☐ | 1,2 |

### 4.10.2 Existing Setting

The undeveloped 19.2-acre project site is located in a suburban neighborhood with single-family residential uses to north and west, agricultural land to the east, a semi-rural residence to the south, and Taylor Mountain Regional Park and Open Space Preserve to the southeast of the project site. The project site is bounded by Kawana Springs Road to the north and Kawana Terrance to the south.

The project is located within the Santa Rosa Plain, an area included in the Santa Rosa Plain Conservation Strategy. The project is mapped in an area of the Conservation Strategy with no effect on the three listed plant species or California tiger salamander.

#### 4.10.2.1 *Applicable Plans, Policies, and Regulations*

**General Plan Designation and Zoning**

In the City's General Plan, the project site is designated as *Parks and Recreation* and bounded by open space, residential, and retail land uses. The project is also mapped in Figure 6-1 in the Santa Rosa 2035 General Plan as a proposed Community Park. The project site is currently zoned Planned Development (96-001C) as a planned park facility. The *Planned Development* (PD) zoning district is intended to facilitate the development of land in an integrated and innovative fashion, to allow for flexibility in design, and to encourage development that is sensitive to environmental, cultural, and economic considerations.

### 4.10.3 Impact Discussion

**a) Physically divide an established community?**

Currently, the project site is undeveloped and consists primarily of vegetation and trees that extend beyond the site into Taylor Mountain Regional Park and Open Space Preserve. The project would construct a neighborhood park on an underutilized piece of property. The proposed park project would not physically divide an established community. **(No Impact)**

**b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?**

According to the City's General Plan, the project site is designated as *Parks and Recreation* and bounded by open space, residential, and retail land uses. The project is also mapped in Figure 6-1 in the Santa Rosa 2035 General Plan as a proposed Community Park. The project site is currently zoned Planned Development (96-001C) as a planned park facility. Therefore, the project site is consistent with the General Plan designation and does not conflict with any other applicable land use plans, policies, or regulations. **(Less Than Significant Impact)**

**c) Conflict with any applicable habitat conservation plan or natural community conservation plan?**

The project is located within the Santa Rosa Plain, an area included in the Santa Rosa Plain Conservation Strategy. The project is mapped in an area of the Conservation Strategy with no effect on the three listed plant species or California tiger salamander. The project, therefore, will not conflict with any provisions of a habitat conservation plan and the impact of the project would be less than significant. **(Less Than Significant Impact)**

### 4.10.4 Conclusion

The proposed project would not conflict with existing land use policies and, therefore, would not have a significant impact. **(Less Than Significant Impact)**

## 4.11 MINERAL RESOURCES

### 4.11.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☒ | 1,2 |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ☐ | ☒ | 1,2 |

### 4.11.2 Existing Setting

The project site is not located in an area containing known mineral resources.

### 4.11.3 Impact Discussion

**a – b) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state? Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

According to the Sonoma County Aggregate Resources Management Plan, no minerals have been found on or adjacent to the project site. Therefore, the project would not result in an impact on mineral resources. **(No Impact)**

### 4.11.4 Conclusion

The project would not result in an environmental impact due to the loss of availability of known mineral resources. **(No Impact)**

## 4.12 NOISE AND VIBRATION

### 4.12.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project result in: | | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☒ | ☐ | ☐ | 1,2 |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ | 1,2,10 |
| f) For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ | 1,2 |

### 4.12.2 Existing Setting

#### 4.12.2.1 *Background*

Noise may be defined as unwanted sound. Acceptable levels of noise vary from land use to land use. In any one location, the noise level will vary over time, from the lowest background or ambient noise level to temporary increases caused by traffic or other sources. State and federal standards have been established as guidelines for determining the compatibility of a particular use with its noise environment.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA.[11] This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, different types of noise descriptors are used to account for this variability. Typical noise descriptors

[11] The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. All sound levels in this discussion are A-weighted, unless otherwise stated.

include maximum noise level ($L_{max}$), the energy-equivalent noise level ($L_{eq}$), and the day-night average noise level ($L_{dn}$). The $L_{dn}$ noise descriptor is commonly used in establishing noise exposure guidelines for specific land uses. For the energy-equivalent sound/noise descriptor called $L_{eq}$ the most common averaging period is hourly, but $L_{eq}$ can describe any series of noise events of arbitrary duration.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable.

Since the sensitivity to noise increases during the evening hours, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Day/Night Average Sound Level, $L_{dn}$ (sometimes also referred to as DNL), is the average A-weighted noise level during a 24-hour day, obtained after the addition of 10 dB to noise levels measured in the nighttime between 10:00 p.m. and 7:00 a.m. The Community Noise Equivalent Level (CNEL) is a 24-hour A-weighted noise level from midnight to midnight after the addition of five dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

#### 4.12.2.2 *On-Site Conditions*

The project site is currently vacant and undeveloped with numerous mature trees and perennial grasses. The site is bounded by Kawana Springs Road to the north, residences to the north and west, and Taylor Mountain Regional Park to the south and southwest. The noise environment on the project site results primarily from vehicular traffic along Kawana Springs Road.

#### 4.12.2.3 *Applicable Plans, Policies, and Regulations*

**Sonoma County Comprehensive Airport Land Use Plan**

The project site is not located within the Airport Influence Area (AIA) of the Sonoma County Airport.

**City of Santa Rosa General Plan**

The City of Santa Rosa has established noise compatibility standards for playgrounds and neighborhood parks of 70 dBA CNEL in the Noise and Safety Element of the Santa Rosa General Plan 2035. The General Plan includes policies for the purpose of avoiding or mitigating impacts resulting from planned development projects with the City. The following policies are specific to noise and vibration and are applicable to the proposed project.

| **City of Santa Rosa Relevant Noise and Vibration Policies** | |
|---|---|
| Policies | Description |
| Policy NS-B-5 | Pursue measures to reduce noise impacts primarily through site planning. Engineering solution for noise mitigation, such as sound walls, are the least desirable alternative. |
| Policy NS-B-6 | Do not permit existing uses to generate new noises exceeding normally acceptable levels unless: these noises are mitigated to acceptable levels; or the activities are specifically exempted by the City Council on the bases of community health, safety, and welfare. |

## City of Santa Rosa Noise Ordinance

The City Municipal Code has a Noise Ordinance (Chapter 17-16). Section 17-16.030 sets criteria for base, or ambient noise levels to help determine if radios, musical instruments, machinery or equipment or other devices are creating a nuisance. Section 17-16.070 of the ordinance states "any noise level exceeding the ambient base level at the property line of any property... by more than five decibels shall be deemed to be prima facie evidence of a violation of this section." Section 17-16.150 of the ordinance prohibits motor vehicle operations in such manner that a reasonable person of normal hearing sensitivity residing in the area is caused discomfort or annoyance. The ordinance also cites section 23130 of the State Vehicle Code.

### 4.12.3 Impact Discussion

**a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

The Noise and Safety Element of the General Plan establishes 70 dBA CNEL as the maximum suggested outdoor noise level for playgrounds and neighborhood parks. Based on the General Plan contours, noise levels on the project site are expected to be in the 60 dBA CNEL due to traffic levels along Kawana Springs Road.

Standard City conditions limit the hours of construction to 7:00 a.m. to 7:00 p.m. Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction is permitted on Sundays and holidays. Therefore, the project would adhere to the Municipal Code and not conflict with the noise ordinance. **(Less Than Significant Impact)**

**b) Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?**

Construction of the park will not require pile driving or other significant sources of groundborne vibration or noise. **(Less Than Significant Impact)**

**c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

Noise levels in the project area would increase minimally as a result of project traffic. A noise increase is considered substantial if it increases the ambient noise level by three dB or more in noise sensitive areas. A three dB increase is equivalent to a doubling of traffic on local roadways. The primary access to the project site is provided via Kawana Springs Road. The project is estimated to result in 275 daily trips which would not double roadway volumes on Kawana Springs Road.[12]

The proposed park would operate from 6:00 a.m. to 6:00 p.m. PST or 9:00 p.m. PDT, seven days per week consistent with Santa Rosa Municipal Code Chapter 13-24. Active park uses are located on the project site northeast of the intersection of Meda Avenue and Kawana Terrace with passive uses in the northerly portions of the park. The operation of the community park, based upon its limited

[12] W-Trans, *Kawana Springs Community Park Circulation Analysis*, April 4, 2018.

hours of allowed use, is not anticipated to generate noise that would expose adjacent sensitive receptors to excessive noise levels. **(Less Than Significant Impact)**

**d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

Project implementation would result in intermittent short-term noise impacts resulting from construction-related activities. However, this temporary impact would be reduced via implementation of BMPs. BMPs are required at the time of building permit issuance for all development and would reduce any impacts of additional noise level exposure to less than significant. Such BMPs include requirements for construction vehicles and equipment to be properly muffled. Construction hours would be limited from 7:00 a.m. to 7:00 p.m. Mondays through Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays.

**Impact NV – 1:** The project would construct a proposed park adjacent to noise sensitive, residential and educational uses which could result in temporary disturbances during construction. **(Significant Impact)**

**Mitigation Measure:** The following mitigation measures will be implemented by the project to ensure impacts from construction noise are reduced to a less than significant level:

**MM NV – 1.1:** The City will incorporate the following practices into the construction documents to be implemented by the project contractor:

- Maximize the physical separation between noise generators and noise receptors. Such separation includes, but is not limited to, the following measures:
  - Locate stationary equipment to minimize noise impacts on the community;
  - Minimize backing movements of equipment;
- Use quiet construction equipment whenever possible and properly maintained and muffled internal combustion engine-driven construction equipment;
- Impact equipment (e.g., jack hammers and pavement breakers) shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools.
- Compressed air exhaust silencers shall be used on other equipment.
- Prohibit unnecessary idling of internal combustion engines.
- The City will designate a “disturbance coordinator” for construction activities. The coordinator would be responsible for responding to any local complaints regarding construction noise and vibration. The coordinator would determine the cause of the noise or vibration complaint and would implement reasonable measures to correct the problem.
- The construction contractor shall send advance notice in conjunction with the City of Santa Rosa Recreation and Parks Department to neighborhood residents within 300 feet of the project site regarding the construction

schedule and including the telephone number for the disturbance coordinator at the construction site.

With the implementation of the above mitigation measures, the proposed project would reduce construction noise impacts to a less than significant level. **(Less Than Significant Impact With Mitigation)**

**e, f) Expose people residing or working in the project area to excessive noise levels? Expose people residing or working in the project area to excessive noise levels?**

The project site is not located within an airport land use plan, within two miles of a public use airport, or within the vicinity of a private airstrip. **(No Impact)**

### 4.12.4 Conclusion

The proposed park would have a less than significant noise impact from park operations. **(Less Than Significant Impact)**

The proposed park master plan project, with the implementation of mitigation measure NV – 1.1, would ensure that construction noise impacts would be less than significant. **(Less Than Significant Impact With Mitigation)**

## 4.13 POPULATION AND HOUSING

### 4.13.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ☒ | 1,2 |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ | 1,2 |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ | 1,2 |

### 4.13.2 Existing Setting

According to US Census Bureau data, Santa Rosa's population for 2016 was estimated to be 175,105 persons. From 2011 to 2015, there were 64,088 households with an average of 2.64 persons per household.[13] According to the City's General Plan, the projected population in 2035 will be 237,000 residents.

### 4.13.3 Impact Discussion

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

The proposed project would not add additional residents, directly, or indirectly. Therefore, there would be no impact. **(No Impact)**

**b – c) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

The project is currently undeveloped; therefore, no displacement of housing or people would occur. **(No Impact)**

[13] US Census Bureau Quick Facts website, November 14, 2017, https://www.census.gov/quickfacts/fact/table/santarosacitycalifornia,CA#viewtop.

### 4.13.4 Conclusion

Implementation of the proposed project would result in no impact on the City's population and housing supply. **(No Impact)**

## 4.14 PUBLIC SERVICES

### 4.14.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project | | | | | |
| a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | | |
| - Fire Protection? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| - Police Protection? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| - Schools? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| - Parks? | ☐ | ☐ | ☐ | ☒ | 1,2 |
| - Other Public Facilities? | ☐ | ☐ | ☒ | ☐ | 1,2 |

### 4.14.2 Existing Setting

#### 4.14.2.1 *Fire Protection Services*

The Santa Rosa Fire Department is responsible for protecting life, property, and the environment from fire, explosion, and hazardous materials incidents. The Department is staffed with 138 sworn employees and ten civilians. The closest fire station to the project site is Fire Station No. 1 located at 955 Sonoma Avenue, approximately 2.0 miles north of the project site.

The City Council has set a goal for the Fire Department of responding to 80 percent of all calls for service within 4 minutes or less, to 90 percent of all calls for service within 5 minutes or less, and to all calls for service within six minutes or less.

#### 4.14.2.2 *Police Protection Services*

The Santa Rosa Police Department provides neighborhood-oriented policing services via patrol operations and traffic enforcement. The Police Department has 256 employees working within the community to provide public safety services. Neighborhood-oriented policing is based on encouraging citizen input and involvement to resolve issues concerning public safety, law enforcement, and criminal activity throughout the community.

Police protection services for the project site are headquartered at 965 Sonoma Avenue, approximately 2.5 miles north of the project site.

#### 4.14.2.3 *Parks*

Currently, the Santa Rosa Recreation and Parks Department operates and maintains 78 parks totaling approximately 737 acres. The City maintains a park standard of 6 acres of parkland per 1,000 residents. The City Council determines what ratio of neighborhood and community parkland, school playgrounds, and open space will satisfy this standard. Currently this ratio is 3.5 acres of parkland per 1,000 residents, plus 1.4 acres of school recreational land and 1.1 acres of public-serving open space.

### 4.14.3 Impact Discussion

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

The proposed project would construct a neighborhood park in an existing residential area. The project would be open from 6:00 a.m. to 6:00 p.m. PST or 9:00 p.m. PDT seven days a week, as all City of Santa Rosa parks currently operate. The project would not substantially increase demand for police and fire services, and would not increase existing response times to the project site. The proposed project would not result in increased demand for schools, parks, or any other public facilities in the project area such that additional facilities would be required. **(Less Than Significant Impact)**

### 4.14.4 Conclusion

The project would result in a less than significant impact to public services. **(Less Than Significant Impact)**

## 4.15 RECREATION

### 4.15.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated? | ☐ | ☐ | ☐ | ☒ | 1,2 |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☒ | 1,2 |

### 4.15.2 Existing Setting

Currently, the Santa Rosa Recreation and Parks Department operates and maintains 78 parks totaling approximately 737 acres.[14] The City maintains a park standard of 6 acres of parkland per 1,000 residents. The City Council determines what ratio of neighborhood and community parkland, school playgrounds, and open space will satisfy this standard. Currently this ratio is 3.5 acres of parkland per 1,000 residents, plus 1.4 acres of school recreational land and 1.1 acres of public-serving open space.

### 4.15.3 Impact Discussion

**a – b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated? Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

The proposed project is the construction of a 19.2-acre neighborhood park. The project would increase the number of parks and recreational facilities in Santa Rosa and would not result in adverse impacts to any recreational facilities. **(No Impact)**

### 4.15.4 Conclusion

The proposed project would not adversely impact recreational facilities in the project area. **(No Impact)**

[14] City of Santa Rosa, Recreation and Parks, *Parks*, March 1, 2019, https://srcity.org/1564/Parks.

## 4.16 TRANSPORTATION/TRAFFIC

This report is based upon a Parking Assessment and Circulation Analysis prepared by *W-Trans* in April 2018. These reports are included in Appendix C of this Initial Study.

### 4.16.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | ☐ | ☐ | ☒ | ☐ | 1,2,12,13 |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☐ | ☐ | ☒ | ☐ | 1,2,12,13 |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☒ | 1,2,12,13 |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)? | ☐ | ☐ | ☒ | ☐ | 1,2,12,13 |
| e) Result in inadequate emergency access? | ☐ | ☐ | ☒ | ☐ | 1,2,12,13 |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | ☐ | ☐ | ☒ | ☐ | 1,2,12,13 |

### 4.16.2 Existing Setting

**Roadway Network**

Local Access

Kawana Springs Road is an east-west road that serves as a connector between residential areas to the east near the project site and commercial uses to the west, and provides the area's primary connection to the surrounding arterial street network.

Kawana Terrace is a local street that parallels Kawana Springs Road, providing access to several local neighborhood streets as well as the Taylor Mountain Regional Park parking lot.

Meda Avenue is a local residential north-south street. Street parking is available on both sides of the street.

**Pedestrian and Bicycle Facilities**

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks, crosswalks, and curb ramps provide access for pedestrians in the vicinity of the proposed project site. Kawana Springs Road has sidewalk gaps on the south side of the roadway between Petaluma Hill Road and Meda Avenue; however, the south side of the roadway contains a strip of undeveloped land adjacent to Kawana Springs Creek. A sidewalk gap on the north side of Kawana Springs Road also exists between Brookwood Avenue and Taylor Mountain Place where an undeveloped parcel spans the block. Kawana Terrace includes sidewalks on the north side of the roadway between Kawana Springs Road and Meda Avenue at which point the road transitions to a more rural character without improvements. Meda Avenue contains sidewalks on both sides of the roadway between Kawana Terrace and Tokay Street to the north. Curb ramps at each corner and crosswalks at the intersection with Kawana Springs Road are provided along with pedestrian-scale street lights.

In the project area, Class II bike lanes exist on Kawana Springs Road, Petaluma Hill Road, and Brookwood Avenue. Otherwise, within the study area, bicyclists ride in the roadway on local streets.

**Transit Service**

Sonoma County Transit (SCT) and Santa Rosa CityBus provide fixed-route bus service in Santa Rosa and in the vicinity of the project. Santa Rosa CityBus Local Route 5 provides service to the downtown Mall, facilitating transfers to other routes and destinations throughout the City. Route 5 stops at the intersection of Petaluma Hill Road/Kawana Springs Road just west of the project site. The route operates Monday through Friday with approximately half-hour headways between 6:15 a.m. and 8:15 p.m. Saturday service operates with approximately one-hour headways between 6:30 a.m. and 7:30 p.m. Sunday service operates approximately one-hour headways from 10:30 a.m. and 4:30 p.m.

SCT Route 46 also stops at the intersection of Kawana Springs Road/Petaluma Hill Road and provides service to the downtown transit center, Sonoma State University, and the Cotati SMART

depot. Route 46 only operates during commute hours with approximately 50-minute headways in the northbound direction and 30-minute headways in the southbound direction.

#### 4.16.2.1 *Methodology*

**Level of Service**

Traffic conditions were evaluated using level of service (LOS). LOS is a qualitative description of operating conditions ranging from LOS A (free-flow conditions with little or no delay) to LOS F (jammed conditions with excessive delays). The analysis methods for the City of Santa Rosa's adopted LOS standard for signalized intersections are described below.

According to the General Plan, Standard T-D-1 states that the City will maintain a LOS D or better along all major corridors. Exceptions to meeting this standard are allowed where attainment would result in significant environmental degradation, where topography or environmental impacts make the improvement impossible, or where attainment would ensure loss of an area's unique character. The correlation between the levels of service and average control delay for signalized intersections is provided in Table 4.16-1.

**Table 4.16-1: Signalized Intersection Level of Service Standards**

| Level of Service | Description | Average Control Delay Per Vehicle (seconds) |
|---|---|---|
| A | Little or no traffic delay | 10.0 or less |
| B | Short traffic delays | 10.1 to 20.0 |
| C | Average traffic delays | 20.1 to 35.0 |
| D | Long traffic delays | 35.1 to 55.0 |
| E | Very long traffic delays | 55.1 to 80.0 |
| F | Extreme traffic delays | Greater than 80.1 |

**Study Intersection**

Intersection LOS was analyzed for the intersection of Petaluma Hill Road/Kawana Springs Road, which is the major intersection nearest the proposed project site and, therefore, most likely to have a traffic impact associated with drivers traveling to and from the proposed park. Operating conditions during the weekday PM peak period and Saturday midday peak period were evaluated to capture the highest potential impacts for the proposed project. The weekday PM peak hour occurs between 4:00 and 6:00 PM and typically reflects the highest level of commute-related congestion. In the project area, the Saturday midday peak period occurs between 1:00 and 3:00 PM.

**Traffic Scenarios Analyzed**

Traffic conditions at study intersections were evaluated for two scenarios: existing conditions and existing plus project. Table 4.16-2 below describes each scenario.

| Table 4.16-2: Traffic Scenarios Analyzed | |
|---|---|
| **Scenario** | **Description** |
| Existing Conditions | Existing conditions are represented by existing peak hour traffic volumes on the existing roadway network. |
| Existing Plus Project Conditions | Existing plus project conditions were estimated by adding projected project peak hour trips generated by the proposed residential project to the existing condition. Project generated traffic was estimated using the vehicular trip generation rates recommended by *SANDAG* |

### 4.16.2.2 *Applicable Plans, Policies, and Regulations*

**City of Santa Rosa General Plan**

The following General Plan policies are pertinent to maintain the City's transportation network and provide multi-modal transportation with the implementation of the proposed park:

| Policy | Description |
|---|---|
| Policy UD-E-2 | Provide an open space network that is linked by pedestrian and bicycle paths, and that preserves and enhances Santa Rosa's significant visual and natural resources. |
| Policy T-A | Provide a safe and sustainable transportation system. |
| Policy T-C-1 | Minimize through traffic in residential neighborhoods and avoid excessive traffic volumes greater than that dictated by street design and classification, by providing attractive regional/arterial streets to accommodate cross-town traffic. |
| Policy T-D-1 | Maintain a Level of Service (LOS) D or better along all major corridors. |
| Policy T-K-6 | Integrate multi-use paths into all creek corridors, railroad rights-of-way, and park designs. |
| Policy T-L-2 | Provide bicycle lanes on major access routes to all schools and parks. |

## 4.16.3 Impact Discussion

**a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

**Project Trip Generation Estimates**

The traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets.

Project trip estimates for the proposed project are based on trip generation rates obtained from *SANDAG* (San Diego Area Council of Governments) and the *Institute of Transportation Engineers' (ITE's) Trip Generation Manual, 10th Edition, 2017*. The trip generation rates were applied only to

the 5.5-acres of active park space, as the passive park acreage (comprised primarily of oak woodland, creekside and riparian areas, detention basins, and seasonal wetland areas) would be expected to generate essentially no park user activity or vehicle trips. Based on the applied assumptions and trip generation rates, the proposed project is expected to generate an average of 275 daily trips, including 25 during the PM peak hour and 87 during the weekend midday peak hour. The trip generation estimates for the proposed project are summarized in Table 4.16-3.

**Table 4.16-3:**
**Trip Generation Summary**

| Land Use | Size | Daily Trips | | PM Peak Hour | | | | Weekend Midday Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Rate | Trips | Rate | Trips | In | Out | Rate | Trips | In | Out |
| City Park | 5.5 acres[1] | 50 | 275 | 4.5 | 25 | 12 | 13 | 15.75 | 87 | 44 | 43 |

[1] acres of active park space
*Source: SANDAG.*

### Existing Plus Project Conditions

The project trips, as represented in the project trip assignment discussed above, were added to existing traffic volumes to obtain existing plus project traffic volumes. Intersection levels of service were evaluated against City of Santa Rosa's LOS standards. The results of the intersection LOS analysis under existing plus project conditions are summarized in Table 4.16-4.

**Table 4.16-4:**
**Existing and Existing Plus Project Intersection Levels of Service**

| Study Intersection | Peak Hour | Existing Condition | | Existing Plus Project Condition | |
|---|---|---|---|---|---|
| | | Average Delay (sec.)[1] | LOS | Average Delay (sec.)[1] | LOS |
| Petaluma Hill Road/ Kawana Springs Road | Weekday PM | 24.7 | C | 24.9 | C |
| | Weekend Midday | 15.6 | B | 16.1 | B |

Notes:
[1] Delay is measured in average seconds per vehicle

The results of the level of service analysis show that, measured against the City of Santa Rosa level of service policies, the Petaluma Hill Road/Kawana Springs Road intersection with the addition of project trips will operate at an acceptable LOS C or better during the weekday PM peak hour of traffic and weekend midday peak hour of traffic. Therefore, the project is consistent with the City's level of service policies.

As of December 2018, amendments to CEQA mandate that LOS, as a measure of local congestion, no longer be used to determine CEQA transportation impacts. The City does not have an adopted Vehicle Miles Traveled (VMT) policy identifying when a project would result in a significant VMT

increase. The project, therefore, is consistent with all applicable plans, policies, and ordinances addressing the City's circulation system. **(Less Than Significant Impact)**

**b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

The Congestion Management Program requires a traffic impact analysis when a project would result in 100 or more peak hour trips. The project, which would generate approximately 25 weekday PM and 87 midday weekend peak hour trips, does not require a detailed traffic impact analysis to show conformity to the CMP. The project would not result in a conflict with any other adopted plan, ordinance, or policy related to the effectiveness of the circulation system. **(Less Than Significant Impact)**

**c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

The project would not affect air traffic patterns in the vicinity of the site. **(No Impact)**

**d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?**

Development in accordance with City design standards will ensure that hazards due to a design feature would be avoided. **(Less Than Significant Impact)**

**e) Result in inadequate emergency access?**

The proposed park would have adequate emergency access. **(Less Than Significant Impact)**

**f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?**

Given that the proposed project is located within a residential community, it is reasonable to assume that many users will want to walk or bicycle to reach the park.

As part of the project, walking trails would be installed throughout the site. Where there are currently no sidewalks along the south side of Kawana Springs Road the proposed project includes walking paths. The two sections of the park, divided by Meda Avenue, would be connected by crosswalks at the all-way stop-controlled Meda Avenue/Kawana Springs Avenue intersection. The crosswalks at the Meda Avenue intersection would also serve pedestrians crossing Kawana Springs Avenue.

The park would also include pedestrian connections to the existing sidewalk network on Meda Avenue south of Kawana Springs Road, and to the Meda Avenue/Kawana Terrace intersection. There are no proposed sidewalks or walking paths proposed along Kawana Terrace other than the connection to the intersection with Meda Avenue. Interior pathways link the park's proposed parking lot on Kawana Terrace to the park's facilities. Since the only other destination to the east on

Kawana Terrace is the Taylor Mountain Regional Park parking lot, pedestrian facilities along the Kawana Terrace project frontage are not recommended as they would potentially encourage Taylor Mountain visitors to park their vehicle at the Kawana Springs parking lot, as opposed to using the Taylor Mountain paid parking lot. Pedestrian connectivity between Kawana Springs Park and Taylor Mountain Regional Park would still be accommodated by a developed pathway along Kawana Springs Road and pedestrian bridge over Kawana Springs Creek near the Taylor Mountain Regional Park entrance.

Existing bicycle facilities, including bike lanes on streets together with shared use of minor streets, provide adequate access to the park for bicyclists. Bike lanes on Kawana Springs Road east of Brookwood Avenue are included in the City's Bike Plan. The project provides a paved trail along the north side of Kawana Springs Creek that would provide adequate and safe bicycle facilities to serve cyclists accessing the project site. **(Less Than Significant Impact)**

### 4.16.4 Conclusion

The proposed park would not generate a substantial amount of new vehicle trips that would exceed the capacity of the street system serving the site, nor would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. The project would not result in inadequate emergency access, nor change in air traffic patterns. **(Less Than Significant Impact)**

## 4.17 UTILITIES AND SERVICE SYSTEMS

### 4.17.1 Environmental Checklist

| | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|
| Would the project: | | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☒ | ☐ | 1,2 |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☐ | ☐ | ☒ | ☐ | 1,2 |

### 4.17.2 Existing Setting

#### 4.17.2.1 *Water*

The City of Santa Rosa receives its primary potable water supply from the Russian River watershed. Water is provided through the Russian River Project managed by the SCWA. The SCWA has supplied water to meet the City of Santa Rosa's demands since the 1970s. From its headwaters in central Mendocino County, the Russian River drains a 1,485 square mile area. Principal tributaries of the Russian River are the East Fork of the Russian River, Big Sulphur Creek, Mark West Creek, Maacama Creek, and Dry Creek. There are also two major reservoir projects located within the Russian River watershed (Lake Mendocino on the East Fork of the Russian River and Lake Sonoma on Dry Creek) that provide water supply storage. A third reservoir project, Lake Pillsbury, indirectly contributes to the water supply through releases into the Eel River that are ultimately diverted into the East Fork of the Russian River project. The SCWA source of water is collected from the Russian River through Ranney water collector systems from two intake sites at Wohler and Mirabel located near Forestville.

Separate from the SCWA system, the City of Santa Rosa owns eight groundwater well sites; two are inactive and out of service. Two wells were converted from emergency to active status in July 2005 and can provide up to 2,300 acre feet per year (ac-ft/year) of supply.[15] Three of the remaining six wells are only operated for emergency purposes, and one is used only for landscape irrigation purposes. The City also has approximately 2.1 million gallons per day (mgd) of groundwater capacity on a stand-by emergency basis. Since the mid-1990s, Santa Rosa has adopted a Capital Improvement Program (CIP) to provide an additional 8.7 mgd of emergency groundwater supply.

#### 4.17.2.2 *Storm Drainage*

The project site contains approximately 0.61 acre of stormwater retention basins located in the northeastern portion of the site. Two stormwater basins exist within the project site, including a linear feature in the northeastern corner of the project site, which flows into a secondary roughly rectangular basin to the west. The linear stormwater retention basin feature contains emergent marsh vegetation including broadleaf cattail (*Typha latifolia*), whereas vegetation within the western stormwater retention basin is typically dominated by hydrophytic grasses and forbs including meadow barley (*Hordeum brachyantherum*), and pennyroyal (*Mentha pulegium*). Stormwater retention basins within the project site are considered exempt per the Clean Water Act as they meet the definition of stormwater control features constructed to convey, treat or store stormwater that are created in dry land.

#### 4.17.2.3 *Wastewater/Sanitary Sewer System*

Sewage generated from urban uses within the City of Santa Rosa is collected and transported to the Laguna Wastewater Treatment Plant (WTP), located southwest of the city on Llano Road. The Laguna WTP, managed by the City of Santa Rosa, provides wastewater treatment and disposal services for the city as well as for Rohnert Park, Cotati, Sebastopol, and South Park Sanitation District. Waste water is tertiary-treated and, depending upon the amount of rainfall received in any given year, between 90 and 100 percent is recycled for urban and agricultural irrigation and for the Geysers Recharge Project. Currently, 6,000 acres of crops are irrigated with recycled water to grow hay, pasture, vegetables, wine grapes, and for landscaped areas.

The Laguna WTP is currently permitted to treat up to 21.34 million gallons per day. Projects under Santa Rosa's Subregional Water Reuse System Incremental Recycled Water Program (IRWP), which was originally undertaken in 2001, will be implemented as growth occurs, eventually increasing the plant's capacity to 25.79 mgd, 18.25 mgd of which would be allocated to Santa Rosa. This expanded capacity will be sufficient to meet the City's wastewater needs up to 2020.

#### 4.17.2.4 *Solid Waste*

The City of Santa Rosa contracts with Recology Sonoma-Marin to provide solid waste collection and curbside recycling for residential and commercial uses in Santa Rosa. Recology Sonoma-Marin is the licensed hauler and recycler for the project area.

[15] City of Santa Rosa, *2015 Urban Water Management Plan*, June 2016, page 3-3.

The Recology Sonoma-Marin currently provides a single-stream recycling program (all recyclables in one container). Recology Sonoma-Marin collects and transports commercial and residential solid waste to the Central Disposal Site Transfer Station at 500 Meacham Road in the City of Petaluma. The Central Disposal Site has a daily permitted disposal of about 1,050 tons per day, and a remaining capacity of about 9 million cubic yards.

#### 4.17.2.5 *Applicable Plans, Policies, and Regulations*

**Assembly Bill 939**

The California Integrated Waste Management Act of 1989, or Assembly Bill 939 (AB 939), established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010 (Public Resources Code Sections 42920-42927).

**California Green Building Standards Code**

In January 2010, the State of California adopted the California Green Building Standards Code (CALGreen, Title 24, Part 11) that establishes mandatory green building standards for all buildings in California. The most recent update to CALGreen went in to effect on January 1, 2017, and covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. These standards include a mandatory set of guidelines, as well as more rigorous voluntary measures, for new construction projects to achieve specific green building performance levels:

- Reducing indoor water use by 20 percent;
- Reducing wastewater by 20 percent;
- Recycling and/or salvaging 50 percent of nonhazardous construction and demolition debris; and
- Providing readily accessible areas for recycling by occupant.

**City of Santa Rosa General Plan**

The General Plan includes policies for the purpose of avoiding or mitigating impacts resulting from planned development projects with the City. The following policies are specific to utilities and service systems and are applicable to the proposed project.

| Policies | Description |
|---|---|
| Policy PSF-F-1 | Utilize high quality water from the Sonoma County Water Agency (SCWA_ aqueduct system as the primary water supply. |
| Policy PFS-F-3 | Develop available groundwater resources for the purpose of providing a supplemental source of water in the event of an emergency. |
| Policy PSF-F-6 | Evaluate the city's long-term water supply strategies, including development of new sources of water supply, improved water conservation and re-use, and implementation of appropriate growth control measures if necessary. |

### 4.17.3 Impact Discussion

**a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

The proposed project includes the construction of restrooms and therefore, would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB). Pursuant to the Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the RWQCB regulates wastewater discharges to surface waters, such as San Francisco Bay, through the NPDES program. Wastewater permits contain specific requirements that limit the pollutants it discharges. As required by the RWQCB, the WWTP monitors its wastewater to ensure that it meets all requirements. The RWQCB routinely inspects treatment facilities to ensure permit requirements are met. Sewage from development on the project site would be treated at the WWTP in accordance with the existing NPDES permit. **(Less Than Significant Impact)**

**b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

The minor increase in restroom facility usage at the proposed park will not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, and has been analyzed by the General Plan. **(Less Than Significant Impact)**

**c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Implementation of the proposed project would result in a slight increase in stormwater runoff due to an increase in impermeable surfaces compared to existing conditions. Runoff from the proposed rooftops, hardscape (sports courts, picnic areas) and parking areas could carry fine sediment, grease, oil, and trace amounts of heavy metals into natural drainages and ultimately into the local creeks.

The proposed project will add or replace more than 10,000 square feet of impervious surfaces; thus, it must conform to the site design and treatment requirements of the Phase I MS4 Permit. Plans will be certified by engineers to ensure incorporation of appropriate and effective site design, source control, and Low Impact Development (LID) treatment controls to reduce post-construction runoff volumes and remove pollutants from runoff entering the storm drainage system. The project will be required to maintain all post-construction treatment control measures throughout the life of the project.

All drainage from the site is required to be treated before it enters the storm drain system, and to ensure there is sufficient capacity to handle increased drainage from the property, the project would be required to limit the runoff from the site so that there is no net increase compared to pre-development levels. **(Less Than Significant Impact)**

**d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

The project would require minimal water for landscaping and turf maintenance. The project would have sufficient water supplies available to serve the project and would not require new or expanded entitlements. **(Less Than Significant Impact)**

**e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

The project would construct restroom facilities which would incrementally increase wastewater demand. The project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand. **(Less Than Significant Impact)**

**f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

The project would generate minimal amounts of solid waste from park patrons. As described above, landfills serving the project site have adequate capacity to accommodate any increase in solid waste generation resulting from the project. The project would comply with federal, state, and local statutes and regulations related to solid waste. **(Less Than Significant Impact)**

### 4.17.4 Conclusion

The project would not result in any utility or service facility exceeding its current capacity or require the construction of new infrastructure or service facilities. **(Less Than Significant Impact)**

## 4.18 MANDATORY FINDINGS OF SIGNIFICANCE

### 4.18.1 Environmental Checklist

| | | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact | Checklist Source(s) |
|---|---|---|---|---|---|---|
| a) | Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☐ | ☒ | ☐ | ☐ | Pgs. 9-97 |
| b) | Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☐ | ☐ | ☒ | ☐ | Pgs. 9-97 |
| c) | Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☒ | ☐ | Pgs. 9-97 |

### 4.18.2 Impact Discussion

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

As described in the specific sections of this Initial Study (refer to *Section 4.0 Environmental Setting, Checklist, and Discussion of Impacts*), with implementation of standard permit conditions and identified mitigation measures, the proposed project would not result in significant environmental impacts. The project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. (**Less Than Significant Impact With Mitigation Incorporated)**

**b) Does the project have impacts that are individually limited, but cumulatively considerable?**

Several of the environmental issues addressed in the previous sections of this Initial Study, such as air quality and greenhouse gas emissions, are assessments of a project's contribution to cumulative effects on either a regional or global basis. These effects were found to be less than significant. Additional impacts, such as those related to geology and soils, water quality, and hazardous materials, are limited to the project site. The project would generate minimal traffic during weekday peak hours, and would not make a considerable contribution toward any identified cumulative traffic impacts. There are no other projects planned in the area that would include substantial sources of light and glare, and the light levels generated by the proposed project are within the range of existing ambient light levels in the project area. The project, therefore, would not result in significant cumulative impacts. **(Less than Significant Impact With Mitigation)**

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

The project's air quality impacts from construction to the surrounding residential area were analyzed in Section 4.3 of this Initial Study and found to be less than significant. The project, therefore, would not directly or indirectly cause significant adverse effects on human beings. **(Less than Significant Impact With Mitigation)**

### 4.18.3 Conclusion

The proposed park project would not have significant cumulative impacts. **(Less Than Significant With Mitigation)**

## Checklist Sources


1. Professional judgment and expertise of the environmental specialist preparing this assessment, based upon a review of the site and surrounding conditions, as well as a review of the project plans.

2. City of Santa Rosa. *Santa Rosa General Plan 2035.* November 2009.

3. City of Santa Rosa. *Santa Rosa City Code.* June 2018. *https://qcode.us/codes/santarosa/*

4. California Department of Conservation. *Sonoma County Important Farmland 2016.* April 2018. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/son16.pdf

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8. City of Santa Rosa. *Climate Action Plan.* Adopted June 5, 2012.

9. EDR. *EDR Radium Map Report with Geocheck.* December 12, 2016.

10. County of Sonoma. *Charles M. Schulz Sonoma County Airport Master Plan*. July 2011.

11. FEMA. *Flood Insurance Rate Map 06097C0737F*. October 16, 2012.

12. W-Trans. *Kawana Springs Community Park Circulation Analysis.* April 4, 2018.

13. W-Trans. *Kawana Springs Community Park Parking Assessment.* April 9, 2018.

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W-Trans. *Kawana Springs Community Park Parking Assessment.* April 9, 2018.

**Persons Contacted:**

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# SECTION 6.0 LEAD AGENCY AND CONSULTANTS

## 6.1 LEAD AGENCY

**City of Santa Rosa**
Recreation and Parks Department

Jen Santos, Deputy Director

## 6.2 CONSULTANTS

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Zach Dill, Graphic Artist

**Holman & Associates**
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Biological Resources Consultants

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# APPENDIX A
# BIOLOGICAL RESOURCES ASSESSMENT

# Biological Resources Assessment

## Kawana Springs Community Park
## SANTA ROSA, SONOMA COUNTY, CALIFORNIA

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**Date:**

March 2019

**WRA Project No:**

26045

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## LIST OF APPENDICES



## LIST OF TABLES

## LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| BMPs | Best Management Practices |
| BRA | Biological Resources Assessment |
| CCR | California Code of Regulations |
| CDFG | California Department of Fish and Game |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CFGC | California Fish and Game Code |
| CFR | Code of Federal Regulations |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| Corps | U.S. Army Corps of Engineers |
| ESA | Federal Endangered Species Act |
| Inventory | CNPS Inventory of Rare and Endangered Plants |
| MSL | Mean Sea Level |
| MBTA | Migratory Bird Treaty Act |
| OWHM | Ordinary High Water Mark |
| Rank | California Rare Plant Rank |
| RWQCB | Regional Water Quality Control Board |
| USDA | U.S. Department of Agriculture |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| WBWG | Western Bat Working Group |
| WRA | WRA, Inc. |

# 1.0 INTRODUCTION

WRA, Inc. (WRA) prepared this biological resources assessment (BRA) report on behalf of David J. Powers & Associates for the proposed Kawana Springs Community Park Project (Project). The proposed Project involves the development of a community park at an approximately 19.6-acre property located at the corner of Kawana Springs Road and Meda Avenue (APN #s: 044-510-013, 044-430-031, 044-410-052, and 044-380-098) in the southeast quadrant of the City of Santa Rosa, Sonoma County, California (Study Area; Appendix A - Figure 1). The proposed Kawana Springs Community Park would include various improvements, including but not limited to: picnic areas, a multi-use turf area, sports courts, a dog park, restrooms, parking lots and drop-off locations, and restrooms. A footbridge across Kawana Springs Creek is proposed at the eastern border of the Study Area, where an existing trail currently crosses the creek.

The purpose of this assessment was to gather information necessary to complete a review of biological resources under the California Environmental Quality Act (CEQA). This report describes the results of the site visits, which assessed the Study Area for the (1) potential to support special-status species, (2) the potential presence of sensitive biological communities such as wetlands or riparian habitats, and (3) the potential presence of other sensitive biological resources protected by local, state, and federal laws and regulations. Specific findings on the habitat suitability or the presence of special-status species or sensitive habitats may require that protocol-level surveys be conducted.

A BRA provides general information on the potential presence of sensitive species and habitats. The BRA is not an official protocol-level survey for listed species that may be required for project approval by local, state, or federal agencies. 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(s).

# 2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the BRA, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

## 2.1 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; state regulations such as the Porter-Cologne Act, the California Fish and Game Code (CFGC), and the CEQA; or local ordinances or policies such as city or county tree ordinances, Special Habitat Management Areas, and General Plan Elements.

<u>Waters of the United States</u>

The U.S. Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the Clean Water Act. 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* (Environmental Laboratory 1987), 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" or "non-wetland waters" and are often characterized by an ordinary high water mark (OHWM). Other waters or non-wetland 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 Clean Water Act.

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. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. 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 Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, 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.

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 California Department of Fish and Wildlife (CDFW, formerly the California Department of Fish and Game [CDFG]). The CDFW ranks sensitive communities and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2018). In the CNDDB, vegetation alliances are ranked 1 through 5 based on NatureServe's (2018) 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 U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (California Code of Regulations [CCR] Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

## 2.2 Special-Status Species

Special-status species include those plants 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 California Endangered Species Act (CESA). These acts afford protection to both listed species and those that are formal candidates for listing. In addition, CDFW Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, CDFW California Fully Protected species, USFWS Birds of Conservation Concern, and CDFW special-status invertebrates, are all considered special-

status species. Although these aforementioned species generally have no special legal status, they are given special consideration under CEQA. Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity; bats named as a "High Priority" or "Medium Priority" species for conservation by the WBWG are typically considered special-status and are considered under CEQA. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1 through 4 are also considered special-status plant species and must be considered under the CEQA. A description of the CNPS Ranks is provided below in Table 1. In addition to regulations for special-status species, most birds in the United States, including non-special-status native species, are protected by the Migratory Bird Treaty Act of 1918 (MBTA) and the CFGC. Under these laws, destroying active bird nests, eggs, and/or young is illegal.

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 |

Santa Rosa Plain Conservation Strategy

The Study Area is located within the Santa Rosa Plain, an ecoregion which supports habitat for many vernal pool-associated special-status species. The USFWS developed the Santa Rosa Plain Conservation Strategy (Conservation Strategy; USFWS et al. 2005) as a conservation plan for these species. The Santa Rosa Plain Conservation Strategy Area is an area established by the USFWS for the protection and continued existence of California tiger salamander (CTS, *Ambystoma californiense*) and three endangered plant species: Burke's goldfields (*Lasthenia burkei*), Sonoma sunshine (*Blennosperma bakeri*), and Sebastopol meadowfoam (*Limnanthes vinculans*). The Conservation Strategy (USFWS 2005) outlines the specific species of concern for this area along with guidance for specific conservation measures. In 2007 the Corps consulted with the USFWS on Section 404 permitting within the Conservation Strategy area which resulted in a Programmatic Biological Opinion (PBO). This 2007 PBO outlines the mitigation requirements resulting from impacts to wetlands and associated impacts to CTS and the three listed plants, and can be appended to permits authorized by the Corps. It is the PBO that dictates the mitigation requirements for CTS and the three listed plant species.

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 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 Local Policies, Ordinances, and Regulations

City of Santa Rosa Tree Ordinance

The City of Santa Rosa recognizes the aesthetic, environmental, and economic benefits mature trees provide to the citizens of the City. Chapter 17-24, "Trees" of the Santa Rosa City Code (Tree Ordinance) regulates the protection of certain trees on public and private properties within the City limits. The Tree Ordinance defines a "heritage tree" as: valley oak (*Quercus lobata*), blue oak (*Q. douglasii*), or buckeye (*Aesculus californica*) 19 inches circumference at breast height (measured at 4.5 feet above ground; or 6 inches diameter at breast height [DBH]) or greater; madrone (*Arbutus menziesii*) 38 inches circumference (12 inches DBH) or greater; coast live oak (*Q. agrifolia*), black oak (*Q. kelloggii*), Oregon oak (*Q. garryana*), canyon live oak (*Q. chrysolepis*), interior live oak (*Q. wislizenii*), red alder (*Alnus rubra* [*A. oregona*]), or white alder (*A. rhombifolia*) 57 inches circumference (18 inches DBH) or greater; or redwood (*Sequoia sempervirens*), bay (*Umbellularia californica*), Douglas fir (*Pseudotsuga menziesii*), or big-leaf maple (*Acer macrophyllum*) 75 inches circumference (24 inches DBH) or greater.

A Tree Permit is generally required for the removal, alteration or relocation of any "heritage tree", "protected tree" (i.e. any tree, including a heritage tree, designated to be preserved on an approved development plan or as a condition of approval of a tentative map, a tentative parcel map, or other development approval issued by the City), or "street tree" (i.e. any tree having a single trunk circumference greater than 6.25 inches or a diameter greater than 2 inches, a height of more than six feet, and one half or more of its trunk is within a public right of way or within 5 feet of the paved portion of a City street or a public sidewalk), except as exempted in Section 17-24.030 of the Tree Ordinance. Several non-native species including acacia, silver maple, ailanthus, hawthorn, fruitless mulberry, privet, pyracantha, Monterey pine, Monterey cypress, and fruit and nut trees (except walnut) are exempt from the provisions of the ordinance. Trees, other than heritage trees, situated within City owned parks and other City owned or controlled places when altered, removed, or relocated by City employees or by contractors retained by the City are also exempt.

Creekside Development Ordinance

Section 20-30.040 "Creekside Development", of the Santa Rosa City Code defines minimum setbacks from waterways for new structures to protect the public from the hazards of streambank failures and flooding. Under the ordinance, buildings of any type, driveways, streets, parking areas, patios, platforms, decks, fences, earth fill or other structural debris fill, and retaining walls, shall be setback a minimum of 50 feet from: (a) the top of the highest bank for streams with

defined channels and banks with slopes gentler than 2.5:1; (b) the intersection of 2.5:1 slope from toe of bank with top-of-bank where the natural bank is steeper than 2.5:1; or (c) the 100-year storm freeboard level for streams where there is no defined top-of-bank. Bridges for motor vehicles, pedestrians, and/or bicycles, and/or public utility infrastructure may cross through a waterway setback area and over or under its channel, provided that the installation has received all required approvals from the City.

# 3.0 METHODS

WRA biologists conducted a site visit on December 21, 2016. The Study Area was traversed on foot to determine (1) plant communities present within the Study Area, (2) whether existing conditions provide suitable habitat for any special-status plant or wildlife species, and (3) whether sensitive habitats are present. Project figures are provided in Appendix A. All plant and wildlife species encountered were recorded and are summarized in Appendix B. Plant nomenclature follows Baldwin et al. (2012) and subsequent revisions by the Jepson Flora Project (2018), 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. Special-status species with a potential for occurrence, determined based on field visits and habitat availability, are described in Appendix C. Representative photographs of the Study Area taken during field visits are included in Appendix D.

## 3.1 Biological Communities

Prior to the site visit, the *Soil Survey of Sonoma County*, California [U.S. Department of Agriculture (USDA) 1972] and SoilWeb (CSRL 2018) were examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present in the Study Area. Biological communities present in the Study Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) or *A Manual of California Vegetation, Online Edition* (CNPS 2018a). However, in some cases it is 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 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 CEQA, and other state, federal, and local laws, regulations and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species and are identified or described in Section 4.1.1 below.

### *3.1.2 Sensitive Biological Communities*

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Special methods used to identify sensitive biological communities are discussed below.

Wetlands and Non-Wetland Waters

Wetlands and non-wetland waters potentially subject to jurisdiction by the Corps, RWQCB, and/or CDFW were mapped following standard methods from the Corps (Environmental Laboratory 1987, Corps 2008a, b). Identification of wetlands focused on the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) indicators of wetland hydrology. Identification of non-wetland waters focused on the presence of an OHWM.

Other Sensitive Biological Communities

The Study Area was evaluated for the presence of other sensitive biological communities, including riparian areas or other sensitive plant communities recognized by CDFW. Prior to the site visit, aerial photographs, local soil maps, and *A Manual of California Vegetation, Online Edition* (CNPS 2018a) were reviewed to assess the potential for sensitive biological communities to occur in the Study Area. All alliances within the Study Area with a ranking of 1 through 3 were considered sensitive biological communities and mapped. These communities are described in Section 4.1.2 below.

## 3.2 Special-Status Species

### *3.2.1 Literature Review*

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the Santa Rosa 7.5-minute U.S. Geological Survey (USGS) quadrangle and the eight surrounding quadrangles: Healdsburg, Sebastopol, Two Rock, Cotati, Glen Ellen, Kenwood, Calistoga, and Mark West Springs. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- CNDDB records (CDFW 2018)
- USFWS Information for Planning and Conservation Report (IPaC; USFWS 2018a)
- National Wetlands Inventory (USFWS 2018b)
- CNPS Rare and Endangered Plant Inventory (CNPS 2018b)
- CDFG publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- CDFG publication “California Bird Species of Special Concern” (Shuford and Gardali 2008)
- CDFW and University of California Press publication California Amphibian and Reptile Species of Special Concern (Thomson *et al.* 2016)
- California Herps: A Guide to the Amphibians and Reptiles of California (CalHerp 2018)
- *Sonoma County Breeding Bird Atlas* (Madrone Audubon Society 1995)
- *A Flora of Sonoma County* (Best et al. 1996)

### *3.2.2 Site Assessment*

A site visit was made to the Study Area to search for suitable habitats for special-status species. Habitat conditions observed at the Project Site were used to evaluate the potential for presence of special-status species based on these searches and the professional expertise of the

investigating biologists. The potential for each special-status species to occur in the Study Area was then evaluated according to 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 is observed on the site or has been recorded (i.e., CNDDB, other reports) on the site recently.

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 in order to determine its potential to occur in the Study Area. The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species; however, if a special-status species is observed during the site visit, its presence will be recorded and discussed.

In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of WRA biologists with experience working with the species and habitats. If necessary, recognized experts in individual species biology were contacted to obtain the most up to date information regarding species biology and ecology.

If a special-status species was observed during the site visit, its presence is recorded and discussed below in Section 4.2. 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 of 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

A general description of the Study Area and the results of the site assessment are provided in the following sections. Project figures are provided in Appendix A. A list of plant and wildlife species observed is included as Appendix B. The assessment of the potential for special-status plant and wildlife species to occur in the Study Area is provided as Appendix C. Photographs of the Study Area are provided as Appendix D.

Study Area Description

Kawana Springs Community Park is approximately 19.66 acres of primarily undeveloped land which was deeded to the City as part of the Kawana Springs Subdivision Project. The Study Area is bisected by Kawana Springs Creek (also known as upper Colgan Creek), an intermittent United States Geological Survey (USGS) "blue-line" stream, which flows through the Study Area in a westerly direction. The City has prepared a preliminary conceptual site plan for park improvements which include: an open turf/multi-use field, bocce ball courts, sand volleyball, outdoor table tennis court, playground/fitness area, dog park, restrooms, parking lot and several shade pavilion/gathering areas for the southcentral portion of the Study Area, south of Kawana Springs Creek. Planned improvements for the northern portion of the Study Area, north of Kawana Springs Creek, include a paved trail with fitness stations, community garden, and additional parking and restrooms. A footbridge across Kawana Springs Creek is proposed at the eastern border of the Study Area, where an existing trail currently crosses the creek.

Topography and Soils

The topography in the Study Area is relatively flat, with the exception of Kawana Springs Creek, an intermittent stream that flows in a westerly direction through the Study Area. Elevations within the Study Area range from approximately 245 feet above mean sea level (amsl) at the northeastern corner of the Study Area to approximately 175 feet amsl at the western terminus within the bed of Kawana Springs Creek. SoilWeb (CSRL 2018) indicates that the Study Area contains two soil mapping units: Clear Lake clay, sandy substratum, drained, 0 to 2 percent slopes; and Goulding-Toomes complex, 9 to 50 percent slopes (Appendix A – Figure 2). Soil series that make up the aforementioned soil mapping units are described below.

Clear Lake Series. The Clear Lake series soils consist of very deep, poorly drained soils formed in fined textured alluvium derived from igneous, metamorphic, and sedimentary rocks. These soils occur in flood basins, flood plains, and in swales of drainageways. In a representative profile, the surface layer (A-horizon) is a very dark gray (N 3/0) neutral clay from 0 to 13 inches. This is underlain by a very dark gray (N 3/0), moderately alkaline clay Bss-horizon from 13 to 60 inches. The Clear Lake clay, sandy substratum, drained, 0 to 2 percent slopes mapping unit is considered a hydric soil (USDA 2018).

Goulding Series. Goulding series soils consist of shallow, somewhat excessively drained soils formed in material weathered from metavolcanic or metasedimentary rocks. These soils are located on mountains and have slopes of 5 to 75 percent. In a representative profile, the surface layer (A-horizon) is a dark brown (7.5YR 3/4), slightly acidic gravelly loam from 0 to 4 inches. This is underlain by a dark brown (7.5YR 3/4), slightly acidic very gravelly loam from 4 to 7 inches. This is underlain by a bedrock layer (R-horizon) of fractured hard metavolcanic rock at 17 inches and below.

Toomes Series. Toomes series soils consist of very shallow, and shallow, well to somewhat excessively drained soils formed in material weathered from tuff breccia, basalt, and andesite. These soils are on ridges and plateaus with slopes from 2 to 75 percent. In a representative profile, the surface layer (A-horizon) is a dark brown (7.5YR 3/4), slightly to moderately acid gravelly loam from 0 to 7 inches. This is underlain by a dark reddish brown (5YR 3/4), slightly acidic gravelly loam from 7 to 15 inches. This is underlain by a bedrock layer (R-horizon) of volcanic breccia.

Climate and Hydrology

Average annual precipitation for Santa Rosa is 25 inches, with the majority falling as rain in the winter months (December through March). The mean daily high temperatures in degrees Fahrenheit range from 56 in December to 81 in September. The mean daily low temperatures in degrees Fahrenheit range from 42 in December to 53 in September (WRCC 2018). Sources of hydrology within the Study Area include direct precipitation and surface runoff from adjacent slopes to the north and south.

The Study Area is entirely within the Russian River watershed (HUC 18010110). Kawana Springs Creek, an intermittent blue-line stream flows through the Study Area in a westerly direction and is the dominant drainage feature in the Study Area.

## 4.1 Biological Communities

Table 2 summarizes the area of each biological community type observed in the Study Area. The Study Area. Non-sensitive biological communities include: ruderal herbaceous grassland, developed/landscaped areas, and non-jurisdictional stormwater retention basin/bioswales. Sensitive biological communities include: intermittent stream, ephemeral stream, valley oak (*Quercus lobata*) riparian woodland, and mitigation seasonal wetland. Descriptions for each biological community are contained in the following sections and depicted in Appendix A - Figure 3.

Table 2. Summary of Biological Communities in the Study Area

| **Community Type** | **Area (acres [linear feet])** |
|---|---|
| **Non-sensitive** | |
| Ruderal herbaceous grassland | 12.25 |
| Developed/landscaped | 0.29 |
| Stormwater retention basin | 0.61 |
| **Sensitive** | |
| Intermittent stream | 0.57 [3,087 l.f.] |
| Ephemeral stream | 0.01 [83 l.f.] |
| Valley oak riparian woodland | 4.94 |
| Mitigation seasonal wetland | 0.99 |
| **Total** | **19.66** |

### *4.1.1 Non-Sensitive Biological Communities*

**Developed/landscaped.** The Study Area contains approximately 0.29 acre of developed areas. Developed areas within the Study Area include a City of Santa Rosa utilities facility located in the northeastern portion of the Study Area. This area is of low habitat value, and vegetative cover is dominated by landscape plantings composed of mostly native species including coast live oak (*Quercus agrifolia*), and coast redwood (*Sequoia sempervirens*). Developed areas are not considered sensitive.

**Ruderal herbaceous grassland.** The majority of the Study Area is composed of ruderal herbaceous grassland. Approximately 12.25 acres of ruderal herbaceous grassland is present on relatively flat areas to the north and south of Kawana Springs Creek. Vegetative cover within these areas is typically dominated by common non-native invasive grasses and forbs including slim oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Harding grass (*Phalaris aquatica*), black mustard (*Brassica nigra*), and yellow starthistle (*Centaurea solstitialis*). Historic aerial photographs (Google Earth 2018) indicate that the majority of this area has been previously disturbed by mowing, discing, or heavy equipment storage. Scattered individual trees are present including coast live oak, and valley oak. Ruderal herbaceous grassland is not considered a sensitive biological community, however it does contain several native trees large enough to be considered heritage trees per the City of Santa Rosa Tree Ordinance.

**Stormwater retention basin.** The Study Area contains approximately 0.61 acre of stormwater retention basins located in the northeastern portion of the Study Area. Two stormwater basins exist within the Study Area, including a linear feature in the northeastern corner of the Study Area, which appears to flow into a secondary roughly rectangular basin to the west. Historic aerial photographs (Google Earth 2018) indicate that stormwater retention basins within the Study Area were constructed between 2006 and 2007 to capture stormwater runoff from an adjacent residential development to the north of the Study Area. The linear stormwater retention basin feature contains emergent marsh vegetation including broadleaf cattail (*Typha latifolia*), whereas vegetation within the western stormwater retention basin is typically dominated by hydrdophytic grasses and forbs including meadow barley (*Hordeum brachyantherum*), and pennyroyal (*Mentha pulegium*). Stormwater retention basins within the Study Area are considered exempt per the CWA as they meet the definition of “stromwater control features constructed to convey, treat or store stormwater that are created in dry land” (33 CFR 328.3b).

*4.1.2 Sensitive Biological Communities*

**Intermittent stream.** The Study Area contains approximately 0.57 acre (3,087 linear feet) of an intermittent stream which bisects the Study Area flowing in a westerly direction. Kawana Springs Creek is an intermittent USGS blue-line stream. The bed of the channel is composed of rock and cobble mixed with sands and silts. Kawana Springs Creek was delineated within the Study Area based on observable OHWM indicators including: presence of a bed and bank, scouring, wrack, sediment deposition, and water stains on the banks. The OHWM was approximately 15 feet wide with the top-of-bank ranging from approximately 25 to 40 feet wide. Portions of the creek have steep, eroded banks as a result of high-flow events, and several fairly recent tree failures were observed crossing the creek. Dominant vegetation along the banks of the intermittent stream is composed of valley oak (*Quercus lobata*) riparian woodland described in detail below. Areas mapped as intermittent stream are considered jurisdictional under Section 404 of the CWA and Section 1602 of the CFGC. Kawana Springs Creek is also likely subject to development setbacks for structures (including buildings of any type, driveways, streets, parking areas, patios, platforms, decks, fences, earth fill or other structural debris fill, or retaining walls) of 50 feet from the top-of-bank, as per Section 20-30.040 “Creekside Development”, of the Santa Rosa City Code. Bridges for motor vehicles, pedestrians, and/or bicycles, and/or public utility infrastructure may cross through a waterway setback area and over or under its channel, provided that the installation has received all required approvals from the City.

**Ephemeral stream.** One ephemeral stream, a tributary to Kawana Springs Creek is located at the eastern end of the Study Area. The ephemeral stream is approximately 0.01 acre (83 linear feet), and enters the Study Area from adjacent slopes to the south in the Taylor Mountain Regional

Park. The bed of the ephemeral stream is approximately 2 feet wide with an approximate 4-foot width between tops-of-bank. The feature flows in a northerly direction into the Study Area, through non-native annual grassland, through an underground culvert underneath Kawana Terrace, and flows into Kawana Springs Creek near the site of the proposed bridge crossing. The ephemeral stream was flowing during the time of the site visit. Areas mapped as ephemeral stream are considered jurisdictional under Section 404 of the CWA and Section 1602 of the CFGC.

**Valley oak riparian woodland.** Valley oak riparian woodland occupies approximately 4.94 acres in the Study Area. Valley oak riparian woodland forms a contiguous canopy along the banks of Kawana Springs Creek (also referred to elsewhere as Colgan Creek), for the majority of the creek's length within the Study Area. This community was mapped in accordance with CNPS (2018) as having valley oak greater than 30 percent relative cover in the tree canopy with other tree species present. The overstory is composed of a mix of native trees and tolerant of winter flooding and/or a high water table, including valley oak, coast live oak (*Quercus agrifolia*), buckeye (*Aesculus californica*), arroyo willow (*Salix lasiolepis*), and Oregon ash (*Fraxinus latifolia*). Other non-native ornamental trees are present in low densities, including Monterey cypress (*Hesperocyparis gymnocarpa*), and cherry plum (*Prunus cerasifera*). The understory is dominated by non-native invasive Himalayan blackberry (*Rubus armeniacus*) throughout the majority of the community. Other non-native shrub species present include French broom (*Genista monspessulana*). Native woody understory species present include poison oak (*Toxicodendron diversilobum*), and California wild rose (*Rosa californica*). The herbaceous layer is dominated by non-native invasive big periwinkle (*Vinca major*), with other native and non-native forbs present including mugwort (*Artemisia douglasii*), licorice fern (*Polypodium calirhiza*), and cleavers (*Galium aparine*). Valley oak woodland is reported by the CDFW with a rarity ranking of G3, S3 (CNPS 2018a), indicating that it is considered vulnerable globally and in California. This community would therefore be considered sensitive and must be evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3). Valley oak riparian woodland is also considered a sensitive community under Section 1602 of the CFGC, and this community also contains many individual trees protected per the City of Santa Rosa Tree Ordinance. Any tree removal or development within this community, including but not limited to trail construction will require a CDFW permit.

**Mitigation seasonal wetland.** The Study Area contains three mitigation seasonal wetlands, totaling approximately 0.99 acre within the northern portion of the Study Area, north of Kawana Springs Creek. These mitigation wetlands were constructed in the Summer and Fall of 2007 as mitigation for impacts to jurisdictional wetlands associated with three Kawana Springs Subdivision Projects (WRA 2008). The mitigation wetlands were created by excavating an upland area to create a series of depressions, Mitigation Wetland 1 (W1), Mitigation Wetland 2 (W2) and Mitigation Wetland 3 (W3). The wetlands were designed to be inundated and/or saturated by direct precipitation and augmented by treated runoff from a bio-swale immediately east of the mitigation wetlands, and a stormwater retention basin directly west of the mitigation wetlands. All three mitigation wetlands appeared to be functioning as wetlands during the December 2016 site visit, as evidenced by observed saturation and/or inundation and dominance of hydrophitic vegetation within the wetland features. Vegetation within the mitigation wetlands was dominated by Italian rye grass (*Festuca perennis*) and meadow barley (*Hordeum brachyantherum*), with substantial cover of iris-leaf rush (*Juncus xiphioides*), common spikerush (*Eleocharis macrostachya*), Mediterranean barley (*Hordeum marinum*), tall flatsedge (*Cyperus eragrostis*), and additional herbaceous hydrophytic vegetation including bristly ox-tongue (*Helminthotheca echioides*), pennyroyal (*Mentha pulegium*), fiddle dock (*Rumex pulcher*), and California aster (*Symphyotrichum chilense*). Areas mapped as mitigation seasonal wetlands are considered jurisdictional under Section 404 of the CWA. The Santa Rosa City Code does not specify any setback requirements for the mitigation wetlands. The Corps generally requires a minimum of 25

feet. for setbacks around natural wetlands that are not being filled by a project, however the setback can typically be modified if there is an unavoidable “pinch point” where there is a need to get closer.

## 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 for the Santa Rosa, Healdsburg, Sebastopol, Two Rock, Cotati, Glen Ellen, Kenwood, Calistoga, and Mark West Springs 7.5-minute USGS quadrangles, it was determined that 90 special-status plant species have been documented from the vicinity of the Study Area; special-status plant species documented from within 5 miles of the site are shown in Appendix A - Figure 4. Of the 90 special-status species documented, all are either unlikely or have no potential to occur within the Study Area for one or more of the following reasons:

- The Study Area has been repeatedly and intensively altered from a natural state, by discing, mowing, and/or grading within the open grassland areas, thereby eliminating the seedbank or diminishing establishment of the special-status plant(s);
- The Study Area does not contain hydrologic conditions (e.g., perennial saline, freshwater marshes and swamps) necessary to support the special-status plant(s);
- The Study Area does not contain edaphic (soil) conditions (e.g., serpentine or volcanic substrate) necessary to support the special-status plant(s);
- The Study Area does not contain vegetation communities (e.g., chaparral, coastal scrub, vernal pools) associated with the special-status plant(s);
- Very unique pH characteristics, such as alkali scalds or acidic bogs and fens, are absent from the Study Area;
- Competition from vigorous non-native invasive species (e.g. Himalayan blackberry), likely precludes the species’ ability to persist on-site.

All listed plant species covered by the Santa Rosa Plain Conservation strategy, Burke’s goldfields, Sonoma sunshine, and Sebastopol meadowfoam are unlikely to occur within the Study Area due to a lack of vernal pool habitat, lack of suitable hydrology (i.e. extended ponding), prior disturbance (i.e. mowing), and lack of historical occurrences within the immediate proximity (within 2 miles) of the Study Area. Moreover, the Study Area is located in area assessed by the Santa Rosa Plain Programmatic Biological Opinion (USFWS 2007) as “no listed plants in the 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 41 special-status wildlife species have been documented from within the Cotati, Kenwood, Sebastopol, Calistoga, Glen Ellen, Healdsburg, Mark West Springs, Two Rock, and Santa Rosa USGS 7.5-minute quadrangles. Of these wildlife species, 13 have moderate or high potential to occur within the Study Area. Special-status wildlife species with potential to occur include three species of bat, eight species of bird, western pond turtle (WPT; *Actinemys marmorata*), California red-legged frog (CRLF; *Rana draytonii*), foothill yellow-legged frog (*Rana boylii*) and California giant salamander (*Dicamptodon ensatus*). These species may be affected both directly and indirectly by project activities if present.

Appendix C summarizes the potential for each of these species to occur in the Study Area. Special-status wildlife species documented in CNDDB within a 5-mile radius of the Study Area are depicted in Appendix A - Figure 5.

Twenty-six (26) special-status wildlife species listed in Appendix C were determined to have no potential or are unlikely to occur within the Study Area for one or more of the following reasons:

- The Study Area is outside of the known or historical range of the species;
- The Study Area lacks suitable foraging habitat (e.g. marshes);
- The Study Area lacks suitable tall nesting structures (e.g. mature conifer trees);
- The Study Area lacks suitable soil for den development;
- No mine shafts, caves, or abandoned buildings are present within the Study Area;
- There is a lack of connectivity with suitable habitat.

While the aforementioned factors contribute to the absence of many special-status wildlife species from the Study Area, the following species determined to have adequate conditions and locality to warrant a moderate or high potential to occur.

<u>Special-status Wildlife Species with Moderate or High Potential to Occur in the Study Area:</u>

**Hoary bat (*Lasiurus cinereus*), WBWG Medium Priority. Moderate Potential.** Hoary bats are highly associated with forested habitats in the western United States, particularly in the Pacific Northwest. They are a solitary species and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches, usually at the edge of a clearing. Roosts are typically 10 to 30 feet above the ground. They have also been documented roosting in caves, beneath rock ledges, in woodpecker holes, in grey squirrel nests, under driftwood, and clinging to the side of buildings, though this behavior is not typical. Hoary bats are thought to be highly migratory, however, wintering sites and migratory routes have not been well documented. This species tolerates a wide range of temperatures and has been captured at air temperatures between 0 and 22 degrees Celsius. Hoary bats probably mate in the fall, with delayed implantation leading to birth in May through July. They usually emerge late in the evening to forage, typically from just over one hour after sunset to after midnight. This species reportedly has a strong preference for moths, but is also known to eat beetles, flies, grasshoppers, termites, dragonflies, and wasps (WBWG 2018). The Study Area contains mature trees which may provide dense foliage or cavities of sufficient size to potentially provide roosting structure for this species. In addition, Kawana Springs Creek provides adequate water for this species. This species has a moderate potential to occur within the Study Area.

**Long-legged myotis (*Myotis volans*), WBWG High Priority. Moderate Potential.** The long-legged myotis ranges across western North America from southeastern Alaska to Baja California and east to the Great Plains and central Texas. This species is usually found in coniferous forests, but also occurs seasonally in riparian and desert habitats. They use abandoned buildings, cracks in the ground, cliff crevices, exfoliating tree bark and hollows within snags as summer day roosts. Caves and mines are used as hibernation roosts. Long-legged myotis forage in and around the forest canopy and feed on moths and other soft-bodies insects (WBWG 2018). The Study Area contains riparian habitat which may support roosting by this species and Kawana Springs Creek provides an adequate water source.

**Pallid bat (*Antrozous pallidus*), CDFW Species of Special Concern, WBWG High Priority. Moderate Potential.** Pallid bats are distributed from southern British Columbia and Montana to central Mexico, and east to Texas, Oklahoma, and Kansas. This species occurs in a number of

habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. They are most abundant in the arid Sonoran life zones below 6,000 feet, but have been found up to 10,000 feet in the Sierra Nevada. Pallid bats often roost in colonies of between 20 and several hundred individuals. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags (e.g., ponderosa pine), inside basal hollows of redwoods and giant sequoias, and within bole cavities in oak trees. They have also been reported roosting in stacks of burlap sacks and stone piles. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas (WBWG 2018). The Study Area contains trees of sufficient size to potentially provide roosting structure for this species. In addition, Kawana Springs Creek may provide adequate water for this species.

**Oak titmouse (*Baeolophus inornatus*), USFWS Bird of Conservation Concern. High 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. 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. Suitable oak trees for nesting and foraging are present within the Study Area. Oak titmouse is regularly observed in the vicinity of the Study Area (eBird 2018).

**Nuttall's woodpecker (*Picoides nuttallii*), USFWS Bird of Conservation Concern. High Potential.** Nuttall's Woodpecker 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. The Study Area contains oak woodland suitable for nesting and foraging by this species. This species has been observed near the Study Area (CDFW 2018).

**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 provides trees of suitable size for nesting as well as nearby foraging habitat. This species has been recorded nesting approximately 1.2 miles west of the Study Area (CDFW 2018).

**Allen's hummingbird (*Selasphorus sasin*), USFWS Bird of Conservation Concern. Moderate Potential.** 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. Trees present within the Study Area provide potential nesting habitat and flowering species within

and adjacent to the Study Area provide foraging habitat for Allen's hummingbird. This species has been documented in the vicinity of the Study Area (eBird 2018).

**Lawrence's goldfinch (*Spinus lawrencei*), USFWS Bird of Conservation Concern. Moderate Potential.** This generally uncommon species is endemic as a breeder to arid woodland habitats in the Central Valley and coastal foothills of California, as well as northern Baja California. Annual distribution within the breeding range can be highly erratic. Wintering occurs in the greater southwest region, including southern California. Suitable woodland habitat is frequently dominated by oaks, and annual native plants are an important food resource (Davis 1999). The Study Area contains oak woodland suitable for nesting and foraging by this species.

**(Brewster's) Yellow warbler (*Setophaga petechia brewsteri*), CDFW Species of Special Concern, USFWS Bird of Conservation Concern. Moderate Potential.** The yellow warbler is a neotropical migrant bird that is widespread in North America, but has declined throughout much of its California breeding range. The Brewster's (*S.p. brewsteri*) subspecies is a summer resident and represents the vast majority of yellow warblers that breed in California. West of the Central Valley, typical yellow warbler breeding habitat consists of dense riparian vegetation along watercourses, including wet meadows, with willow growth especially being favored (Shuford and Gardali 2008). Insects comprise the majority of the diet. The Study Area contains riparian habitat which may be suitable for nesting or foraging by this species.

**Western pond turtle (*Actinemys marmorata*), CDFW Species of Special Concern. Moderate Potential.** The western pond turtle is the only native freshwater turtle in California. This turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and Transverse Ranges. Western pond turtle inhabits annual and perennial aquatic habitats, such as coastal lagoons, lakes, ponds, marshes, rivers, and streams from sea level to 5,500 feet in elevation. Pond turtle also occupies man-made habitats such as stock ponds, wastewater storage, percolation ponds, canals, and reservoirs. This species requires low-flowing or stagnant freshwater aquatic habitat with suitable basking structures, including rocks, logs, algal mats, mud banks and sand. Warm, shallow, nutrient-rich waters are ideal as they support prey items, which include aquatic invertebrates and occasionally fish, carrion, and vegetation. Turtles require suitable aquatic habitat for most of the year; however, pond turtle often occupies creeks, rivers, and coastal lagoons that become seasonally unsuitable. To escape periods of high water flow, high salinity, or prolonged dry conditions, western pond turtle may move upstream and/or take refuge in vegetated, upland habitat for up to four months (Rathbun et al. 2002). Although upland habitat is utilized for refuging and nesting, this species preferentially utilizes aquatic and riparian corridors for movement and dispersal.

Western pond turtle nests from late April through July. This species requires open, dry upland habitat with friable soils for nesting and prefer to nest on unshaded slopes within 15 to 330 feet of suitable aquatic habitat (Rathbun et al. 1992). Females venture from water for several hours in the late afternoon or evening during the nesting season to excavate a nest, lay eggs, and bury the eggs to incubate and protect them. Nests are well-concealed, though native mammals are occasionally able to locate and predate upon eggs. Hatchlings generally overwinter in the nest and emerge in early spring of the following year. The Study Area contains an intermittent stream which could support this species through part of the year. There are multiple recorded occurrences of this species within 5-miles of the Study Area (CDFW 2018).

**Foothill yellow-legged frog (*Rana boylii*). State Candidate, CDFW Species of Special Concern. Moderate Potential.** The foothill yellow-legged frog (FYLF) historically occurred in coastal and mountain streams from southern Oregon to Los Angeles County, but has declined in

many parts of this range. This species is strongly associated with rivers and creeks, and prefers shallow, flowing water with a rocky substrate. Individuals do not typically move overland and are rarely observed far from a source of permanent water. In northern California, it was observed adults were on average within ten feet and rarely over 40 feet from the stream (Bourque 2008). Although upland habitat usage is not well studied, the data suggest that movements away from water are related to flood events (Kupferberg 1996, Bourque 2008, Thomson et al. 2016). Frogs in intermittent drainages may move more than those in perennial but movements are within the creek corridors (Kupferberg 1996, Bourque 2008, Gonsolin 2010). There were opportunistic observations that coastal yellow-legged frogs may use upland habitats in winter (Nussbaum et al. 1983, Welsh, H. per. comm. as reported in Bourque 2008); however, this has not been supported by data and these movements away from water into terrestrial habitat are likely in response to high flows and flood events (Kupferberg 1996, Bourque 2008). Aquatic breeding sites are often near stream confluences, with egg masses typically deposited behind or sometimes under rocks in low-flow areas with cobble and/or gravel (Thomson et al. 2016). The Study Area contains a small, low gradient, intermittent stream that could support metamorphosed FYLF during part of the year. Connectivity to more suitable downstream habitats that may support breeding is compromised by dense urban surroundings. However, because some habitat exists for the species and several recent records for the species are present in the City of Santa Rosa (iNaturalist 2018), there is potential for FYLF to be present in the stream within the Study Area.

**California red-legged frog (*Rana draytonii*). Federal Threatened Species, CDFW Species of Special Concern. Moderate Potential.** CRLF is dependent on suitable aquatic and upland habitat. Specifically, there are four physical and biological features that are considered to be essential for the conservation or survival of the species. The features for the CRLF include aquatic breeding habitat; non-breeding aquatic habitat; upland habitat; and dispersal habitat (USFWS 2010). Aquatic breeding habitat consists of low-gradient fresh water bodies, including natural and manmade (e.g., stock) ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds. It does not include deep water habitat, such as lakes and reservoirs. Aquatic breeding habitat must hold water for a minimum of 20 weeks in most years. This is the average amount of time needed for egg, larvae, and tadpole development and metamorphosis so that juveniles can become capable of surviving in upland habitats (USFWS 2010). Aquatic non-breeding habitat may or may not hold water long enough for CRLF to hatch and complete its aquatic life cycle, but it provides shelter, foraging, predator avoidance, and aquatic dispersal for juvenile and adult CRLF. These waterbodies include plunge pools within intermittent creeks; seeps; quiet water refugia during high water flows; and springs of sufficient flow to withstand the summer dry period. CRLF can use large cracks in the bottom of dried ponds as refugia to maintain moisture and avoid heat and solar exposure (Alvarez 2004). Non-breeding aquatic features enable CRLF to survive drought periods, and disperse to other aquatic breeding habitat (USFWS 2010).

Upland habitats include areas adjacent to aquatic and riparian habitat and are comprised of grasslands, woodlands, and/or vegetation that provide shelter, forage, and predator avoidance. These upland features provide breeding, non-breeding, feeding, and sheltering habitat for juvenile and adult frogs (e.g., shelter, shade, moisture, cooler temperatures, a prey base, foraging opportunities, and areas for predator avoidance). Upland habitat can include structural features such as boulders, rocks and organic debris (e.g. downed trees, logs), as well as small mammal burrows and moist leaf litter (USFWS 2010). Dispersal habitat includes accessible upland or riparian habitats between occupied locations within 1 miles of each other that allow for movement between these sites. Dispersal habitat includes various natural and altered habitats such as agricultural fields, which do not contain barriers to dispersal. Moderate to high-density urban or industrial developments, large reservoirs and heavily traveled roads without bridges or culverts

are considered barriers to dispersal (USFWS 2010). Although CRLF is highly aquatic, this species has been documented to make overland movements of several hundred meters and up to one mile during a winter-spring wet season in Northern California (Bulger et al. 2003, Fellers and Kleeman 2007) and 2,860 meters (1.8 miles) in the central California coast (Rathbun and Schneider 2001). Frogs traveling along watercourses can exceed these distances. Kawana Springs Creek is intermittent and does not provide suitable breeding habitat for this species. Suitable aquatic breeding habitat exists approximately 1-mile of the Study Area, where CRLF was observed as recently as 2016 (CDFW 2018). Based upon distance from breeding habitat, this species may disperse into woodland, grassland, or intermittent streams within the Study Area during periods of rainfall but is otherwise unlikely to be present.

**California giant salamander (*Dicamptodon ensatus*). CDFW Species of Special Concern. Moderate Potential.** The California giant salamander is endemic to the north-central California Coast Ranges, and occurs in two discrete areas north and south of San Francisco Bay respectively. This species primarily occupies moist coniferous and mixed forests, but is also found along streams in coastal woodland and chaparral areas. Adults are largely terrestrial and fossorial, but similar to other fossorial amphibians, can be active at or near the surface in wet conditions such as high humidity or rain events (Thomson et al. 2016). Discoveries of this species at burrows are restricted to wet, shaded along streams, stream banks, and moist road cuts, and only above ground during fall and winter rain events (Fellers et al 2010, Thomson et al 2016). Observations of this species underground come from work in streams and all individuals were always within refugia in proximity to creek or spring features (Feller et al 2010). Breeding occurs in cold, permanent or semi-permanent streams, often in headwater reaches. Larvae typically remain aquatic for over a year before metamorphosing (Thomson et al. 2016). Some larvae never undergo metamorphosis, and become reproductively mature while remaining aquatic. Prey consists of a variety of invertebrates and small vertebrates. The Study Area contains woodland and aquatic habitat which may be seasonally suitable for this species. The Study Area is surrounded by development to the north and west, and the Study Area may not keep stream temperatures suitable for the species, but it is contiguous with potentially suitable habitat to the east and south. There is a moderate potential for this species to be present within the stream in the Study Area.

### 4.3 Protected Trees

WRA conducted an arborist survey within the Study Area concurrent with this assessment in January 6, 2017. The survey focused on identifying: (a) potential hazard trees in the Study Area, and (b) heritage and non-heritage trees that may be impacted by park improvements. The survey, conducted by WRA's ISA-Certified Arborist identified 47 trees in the vicinity of project improvements in the Study Area, including 27 heritage trees per the City of Santa Rosa Tree Ordinance, and 20 non-heritage trees. A figure showing surveyed trees is provided in Appendix A. A tree survey table with all pertinent information for surveyed trees is provided in Appendix E. The Project has been designed to avoid and preserve trees, especially heritage trees to the maximum extent feasible. As described above, the City is considered exempt from their own tree ordinance on trees, other than heritage trees, situated within City owned parks and other City owned or controlled places when altered, removed, or relocated by City employees or by contractors retained by the City.

## 5.0 POTENTIAL IMPACTS, AVOIDANCE, AND MINIMIZATION MEASURES

Four sensitive biological communities, including ephemeral stream, intermittent stream (Kawana Springs Creek), mitigation seasonal wetland, and valley oak riparian woodland were identified within the Study Area. No special-status plant species and two special-status wildlife species including oak titmouse and Nuttall's woodpecker were observed within Study Area during the site visit. No special-status plant species, and 15 special-status wildlife species have a moderate or high potential to occur. The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to these species and sensitive habitats, if present. Potential impacts to sensitive biological communities and special-status species within the Study Area were evaluated based on the project site plans (GSM 2018). Potential impacts were analyzed using the framework provided in Appendix G of the CEQA Guidelines. Based on this framework, the Project is determined to have a potentially significant impact to biological resources if it may:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS;

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or,

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The following sections provide an analysis of potential impacts using the framework outlined above, as well as recommended avoidance and minimization measures to reduce potential impacts and mitigation measures for unavoidable impacts. With the implementation of the recommended avoidance and minimization measures outlined below, all potential impacts are considered less-than-significant.

### 5.1 Potentially Significant Impacts

<u>Sensitive Biological Communities</u>

*Potential Impact BIO-1: Wetlands and Waters of the U.S., Riparian Habitat*

The Study Area contains intermittent and ephemeral streams, and mitigation seasonal wetlands which are likely to be considered jurisdictional waters of the U.S. All areas mapped as ephemeral

stream, intermittent stream, and mitigation seasonal wetland will be avoided by the Project. However, the site plan includes one footbridge crossing across Kawana Springs Creek which may have potential impacts to habitat adjacent to the creek. The Project plans indicate that bridge footings will be situated outside of the OHWM, and above TOB. However, if impacts occur below the top of bank (TOB), within riparian habitat, or the project proposes to fill wetlands or areas below the OHWM of the creek, a mitigation measure (MM BIO-1) for impacts to jurisdictional wetlands and Waters of the U.S. and riparian habitat is discussed in Section 5.2 below. With implementation of MM BIO-1 these impacts would be less-than-significant.

Special-Status Plant Species

All special-status plant species documented within the vicinity of the Study Area are unlikely or have no potential to occur in the Study Area. The Project is not anticipated to impact special-status plant species. No further surveys or mitigation measures are recommended for special-status plant species.

Special-Status Wildlife Species

Fifteen (15) special-status wildlife species were determined to have moderate or high potential to occur within the Study Area. The Project may also affect non-special-status native nesting birds which are protected by the CFGC. Kawana Springs Creek may be seasonally suitable for California giant salamander and western pond turtle; however, because aquatic habitat within the Study Area is marginal and work will not occur below top of bank, project activities are unlikely to adversely affect these species.

*Potential Impact BIO-2: Nesting Bird Species*

The Project has the potential to impact special-status and non-special-status native nesting birds protected by CFGC and the MBTA including white-tailed kite, oak titmouse, Allen's hummingbird, Nuttall's woodpecker, Lawrence's goldfinch, yellow-breasted chat, yellow warbler, and Vaux's swift. Project activities such as vegetation removal and ground disturbance associated with development would have the potential to affect these species by causing direct mortality of eggs or young, or by causing auditory, vibratory, and/or visual disturbance of a sufficient level to cause abandonment of an active nest. If Project Activities occur during the nesting season, which generally extends from February 1 through August 31 nests of both special-status and non-special-status native birds could be impacted by construction and other ground disturbing activities.

The direct removal/destruction of active nests due to project activities or disturbance to breeding birds sufficient to result in the abandonment of active nests is a potentially significant impact under CEQA. A mitigation measure (MM BIO-2) for impacts to nesting birds is discussed in Section 5.2 below. With implementation of MM BIO-2 these impacts would be less-than-significant.

*Potential Impact BIO-3: Special-Status Bat Species*

The Study Area contains trees with foliage and possible cavities that may provide roost habitat to special-status bat species documented in the vicinity and outlined in Appendix C: hoary bat, long-legged bat, and pallid bat. Impacts to these species and their roost habitats could occur during the removal of trees within the Study Area. These activities could result in the direct removal or

destruction of a roost and/or maternity roost. Project activities may also create audible, vibratory and/or visual disturbances which cause maternity roosting bats to abandon their roost site.

Activities that result in the direct removal of active roosts or disturbance to maternity roosting bats sufficient to result in the abandonment of the roost is a potentially significant impact under CEQA. A mitigation measure (MM BIO-3) for impacts to roosting bats is discussed in Section 5.2 below. With implementation of MM BIO-3, impacts would be less-than-significant.

*Potential Impact BIO-4: California Red-legged Frog*

CRLF breeding and year-round aquatic habitat is within 1-mile of the Study Area. CRLF may use Kawana Springs Creek for non-breeding aquatic habitat. CRLF have potential to disperse into the Study Area from nearby suitable aquatic habitat during rain events. Project activities including vegetation removal and grading could result in direct injury or mortality.

Activities that result in disturbance to CRLF is a potentially significant impact under CEQA. A mitigation measure (MM BIO-4) for impacts to CRLF is discussed in Section 5.2 below. With implementation of MM BIO-4, impacts would be less-than-significant.

*Potential Impact BIO-5: Foothill Yellow-legged Frog*

The Study Area contains a small, low gradient, intermittent stream that could support FYLF during part of the year. Impacts to this species could occur during vegetation removal or ground disturbing activities in close proximity to Kawana Springs Creek or during flood periods where FYLF may occur above top of bank.

The direct injury or harm of FYLF due to project activities is a potentially significant impact under CEQA. In addition, FYLF is a candidate for listing under the CESA, and take as defined by CESA is prohibited unless permitted through consultation under CFGC Section 2081 with CDFW. A mitigation measure (MM BIO-5) for impacts to FYLF is discussed in Section 5.2 below. With implementation of MM BIO-5 these impacts would be less-than-significant.

<u>Protected Trees</u>

*Impact BIO-6: Protected Trees*

WRA's ISA-Certified Arborist identified 47 trees in the vicinity of project improvements in the Study Area, including 27 heritage trees per the City of Santa Rosa Tree Ordinance, and 20 non-heritage trees. The Project has been designed to avoid and preserve trees, especially heritage trees to the maximum extent feasible. As described above, the City is considered exempt from their own tree ordinance on trees, other than heritage trees, situated within City owned parks and other City owned or controlled places when altered, removed, or relocated by City employees or by contractors retained by the City. Potential tree removal impacts were assessed by overlaying the proposed improvements over tree survey data (Figure 3). Based on a preliminary impact assessment it appears that three non-heritage trees (trees #36, 37, and 38) may require removal to facilitate project improvements. Two of the three trees, #36 and 37 are dead cherry plum trees, and tree #38 is a live cherry plum tree. Removal of non-heritage trees would not be considered a significant impact as it would not conflict with the City of Santa Rosa Tree Ordinance. However, if heritage trees require removal, a mitigation measure (MM BIO-6) for impacts to heritage trees is discussed in Section 5.2 below. With implementation of MM BIO-6, impacts would be less-than-significant.

## 5.2 Mitigation Measures

Sensitive Biological Communities

*MM BIO-1: Wetlands and Waters of the U.S., Riparian Habitat*

Project plans indicate that bridge footings will be situated outside of the OHWM, and above TOB. However, if impacts occur below the top of bank (TOB), within riparian habitat, or the project proposes to fill wetlands or areas below the OHWM of the creek, the following permits will be required:

- Corps Section 404 Nationwide Permit (OHWM, mitigation seasonal wetland),
- RWQCB Section 401 Water Quality Certification (OHWM, mitigation seasonal wetland),
- RWQCB Waste Discharge Requirements (TOB), and
- CDFW Section 1602 Streambed Alteration Agreement (TOB, valley oak riparian woodland);

If project work will avoid the OHWM of the creek, and mitigation wetlands, no formal wetland delineation or permits from the Corps would be required. Stream setbacks for new structures may apply per Section 20-30.040, "Creekside Development" of the Santa Rosa City Code. The setback area on either side of Kawana Springs Creek is typically measured as 50 feet from the top of the highest bank of the creek. When the bank is steeper than 2.5:1, the setback is measured by projection of the slope of 2.5:1 from the toe of the stream bank to ground level above top of bank, plus 50 feet.

Removal of vegetation, particularly woody trees and shrubs within the valley oak riparian woodland will likely require a CDFW 1602 permit and require replacement mitigation. Potential impacts to valley oak riparian woodland and potential riparian trees are shown on Figure 3. Impacts to valley oak riparian woodland are mostly limited to trail construction within valley oak riparian woodland underneath riparian trees, which would not require mitigation. However, the Project may require removal of two dead non-native cherry plum trees (trees #36, and 37), and one live cherry plum tree (tree #38) within riparian habitat, in which case mitigation replacement plantings on the order of 3:1 replacement trees planted to trees removed would likely be required, for a maximum of 9 replacement trees.

A habitat mitigation and monitoring plan (HMMP) should be developed that will provide details on how to replace trees to compensate for removal of riparian trees. Replacement plantings should be sited in non-native annual grassland habitat adjacent to valley oak riparian woodland with the intention of filling in gaps in existing riparian woodland habitat, and/or expanding the extent of riparian habitat within the Project Area. The Plan shall include: 1) a plant palette of species/quantity riparian species to be planted; 2) approximate area of temporary and permanent riparian impacts; 3) a map showing restoration locations, area dimensions, and riparian enhancement methods; and 5) performance standards, monitoring and reporting programs, and corrective actions to be taken when enhancement measures do not meet performance standards.

With the obtainment of applicable permits outlined above, and adherence to any required mitigation measures as required by such permits, impacts to Wetlands and Waters of the U.S. and riparian habitat would be less-than-significant.

Special-Status Wildlife Species

*MM BIO-2: Special-Status and Non-Status Nesting Birds*

WRA recommends the following measures be implemented to avoid impacts to white-tailed kite, oak titmouse, Allen's hummingbird, Nuttall's woodpecker, Lawrence's goldfinch, yellow warbler, and other nesting birds protected by the MBTA and/or CFGC.

- If ground disturbance or vegetation removal is initiated in the non-breeding season (September 1 through January 31), no pre-construction surveys for nesting birds are required and no adverse impact to birds would result.
- If ground disturbance or removal of vegetation occurs in the breeding bird season (February 1 through August 31), pre-construction surveys shall be performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, temporary no-work buffers shall be placed around active nests to prevent adverse impacts to nesting birds. Appropriate buffer distance shall be determined by a qualified biologist and is dependent on species, surrounding vegetation, and topography. Once active nests become inactive, such as when young fledge the nest or the nest is subject to predation, work shall continue in the buffer area and no adverse impact to birds will result.

The implementation of the above measures will reduce impacts to protected nesting bird species to less-than-significant levels.

*MM BIO-3: Special-Status Bat Species*

WRA recommends the following measures be implemented to avoid impacts to special-status bat species:

- *Pre-construction roost assessment survey:* A qualified biologist shall conduct a roost assessment survey of trees located within the Study Area. The survey will assess use of the trees and cavities for roosting as well as potential presence of bats. If the biologist finds no evidence of, or potential to support bat roosting, no further measures are recommended. If evidence of bat roosting is present, additional measures described below shall be implemented:
    - *Work activities outside the maternity roosting season*: If evidence of bat roosting is discovered during the pre-construction roost assessment and tree removal is planned August 1 through February 28 (outside the bat maternity roosting season), a qualified biologist shall implement passive exclusion measures to prevent bats from re-entering the tree cavities. After sufficient time to allow bats to escape and a follow-up survey to determine if bats have vacated the roost, tree removal may continue and impacts to special-status bat species will be avoided.
    - *Work activities during the maternity roosting season:* If a pre-construction roost assessment discovers evidence of bat roosting in the trees during the maternity roosting season (March 1 through July 31), and determines maternity roosting bats are present, removal of maternity roost trees shall be avoided during the maternity roosting season or until a qualified biologist determines the roost has been vacated.

The implementation of the above measures will reduce impacts to special-status bat species to less-than-significant levels.

*MM BIO-4: California Red-legged Frog*

The following measures will be implemented to minimize effects and avoid take of CRLF prior to and/or during project activities.

- All workers will receive a worker environmental awareness training program describing CRLF, its status, and penalties for take.
- Work buffers will be observed around CRLF if any are detected, and a designated Project biologist will be contacted to document the observation and recommend additional measures if determined necessary.
- Any trenches or pipes will be covered or capped overnight and BMPs will be constructed of natural materials that will not entrap wildlife.
- If construction personnel observe a dead or injured listed species or if a listed species is killed or injured during construction-related activities, the worker will immediately report the incident to the Service-approved biologist and the USFWS will be notified within 24-hours of the incident.
- No ground disturbance work will occur within 24 hours of rain events that generate greater than 0.25 inch of accumulated precipitation or during rain events predicted to accumulate 0.25 inch of precipitation.

The implementation of the above measures will reduce impacts to CRLF to a less-than-significant level.

*MM BIO-5: Foothill Yellow-legged Frog*

The following measures will be implemented to minimize impacts to foothill yellow-legged frog prior to and/or during project activities.

- Work within 100 feet of any streams, ponds, or riparian areas will be limited to the dry season (April 1 to October 31) to the extent feasible.
- No work within the bed and banks of Kawana Springs Creek will occur. If in-channel work is necessary, a Project biologist will be contacted to determine if consultation with CDFW under Section 2081 is warranted for an Incidental Take Permit.
- If work must occur outside of the dry season (November 1 to March 31), pre-construction surveys will be conducted within 5 days of the start of initial project work within areas that may support FYLF. These surveys will investigate for the presence of all life stages (adults, subadults, tadpoles, or egg masses). If the species is detected, a qualified biologist will be present during work within 100 feet of top of bank to ensure prevention of take of the species under the CESA.
- Any personnel involved in construction activities will receive worker environmental educational program training from a biologist in the identification, life history, habitat requirements for the species, status of the species, and receive instructions on what to do if the species is encountered in or near the work area.

The implementation of the above measures will reduce impacts to FYLF to less-than-significant levels.

Protected Trees

*MM BIO-6: Compensatory Mitigation for Heritage Tree Removal*

Based on a preliminary impact assessment it appears that three non-heritage trees may require removal to facilitate project improvements. Removal of non-heritage trees would not be considered a significant impact as it would not conflict with the City of Santa Rosa Tree Ordinance. No permit shall be required for the removal of non-heritage trees, and no additional replacement trees shall be required beyond what replacement trees may be required by CDFW as described above. However, if the Project requires removal or trimming of roots or branches of any heritage trees, the Project shall obtain a tree removal permit for any heritage tree removal and for potential impacts to heritage tree root zones. The project shall follow all requirements of permit approval, such as replacement of trees.

The City's tree replacement requirement for removal of heritage trees is as follows: "For each six inches or fraction thereof of the diameter of a [heritage] tree which was approved for removal, two trees of the same genus and species as the removed tree (or another species, if approved by the Director), each of a minimum 15-gallon container size, shall be planted on the project site, provided however, that an increased number of smaller size trees of the same genus and species may be planted if approved by the Director, or a fewer number of such trees of a larger size if approved by the Director." For example, removal of a 12-inch diameter heritage valley oak tree, would require two 15-gallon container size valley oak replacement trees.

Although the Project is not anticipated to impact heritage trees, and no permit shall be required for removal of non-heritage trees, the following relevant tree protection measures during construction are recommended as excerpted from Section 17-24.050 of the Tree Ordinance:

(1) Before the start of any clearing, excavation, construction or other work on the site, every protected tree [within 25 feet of ground disturbance work] shall be securely fenced off at the "protected perimeter," which shall be either the root zone [defined as the outer extent of the tree's dripline, plus 10 feet] or other limit as may be established by the City. Such fences shall remain continuously in place for the duration of all work undertaken in connection with the development. The area so fenced off shall not be used as a storage area or altered or disturbed except as may be permitted under this subsection.

(2) If the proposed development, including any site work for the development, will encroach upon the protected perimeter of a protected tree, special measures shall be utilized, as approved by the Director or the Planning Commission, to allow the roots to obtain oxygen, water, and nutrients as needed. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter, if authorized at all by the Director, shall be minimized and subject to such conditions as may be imposed by the Director. No significant change in existing ground level shall be made within the drip line of a protected tree. No burning or use of equipment with an open flame shall occur near or within the protected perimeter. All brush, earth and other debris shall be removed in a manner which prevents injury to the protected tree.

(3) No oil, gas, chemicals or other substances that may be harmful to trees shall be stored or dumped within the protected perimeter of any protected tree, or at any other location on the site from which such substances might enter the perimeter of a protected tree. No construction materials shall be stored within the protected perimeter of a protected tree.

(4) Underground trenching for utilities shall avoid major support and absorbing tree roots of protected trees. If avoidance is impractical, tunnels shall be made below the roots. Trenches shall be consolidated to service as many units as possible. Trenching within the drip line of protected trees shall be avoided to the greatest extent possible and shall only be done under the on-site directions of a Certified Arborist.

(5) No concrete or asphalt paving shall be placed over the root zones of protected trees [selected for preservation]. No artificial irrigation shall occur within the root zone of oaks.

(6) No compaction of the soil within the root zone of protected trees [selected for preservation] shall occur.

Implementation of these BMPs will reduce tree removal impacts to less-than-significant levels.

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# APPENDIX A

# PROJECT FIGURES

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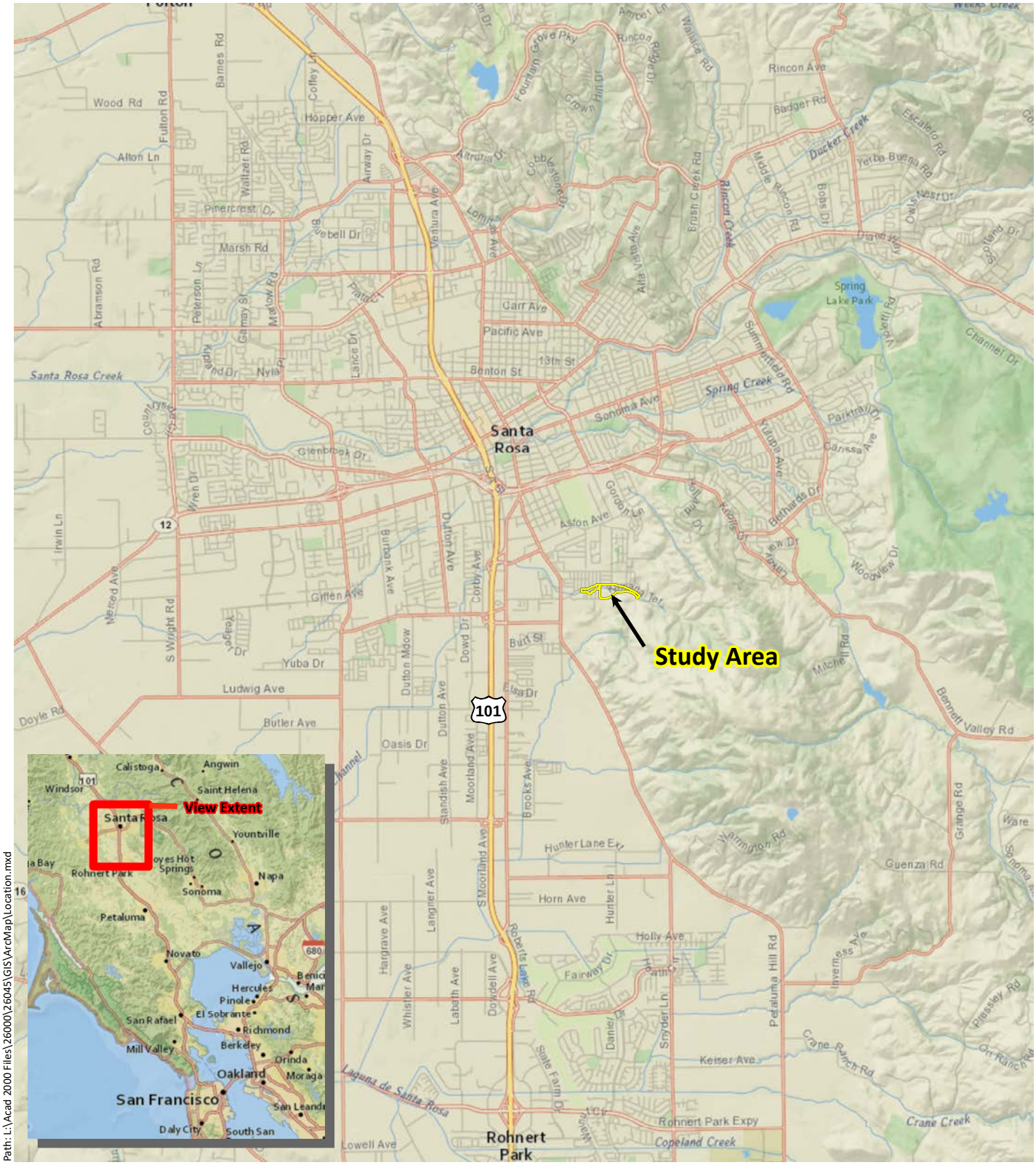


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**Sources**: National Geographic, WRA | Prepared By: mrochelle, 9/10/2018

# Figure 1. Study Area Location

Kawana Springs
Sonoma County, California

0 1 2 Miles

N

ENVIRONMENTAL CONSULTANTS


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**Sources**: Esri Streaming - NAIP 2016, WRA | Prepared By: mrochelle, 9/10/2018

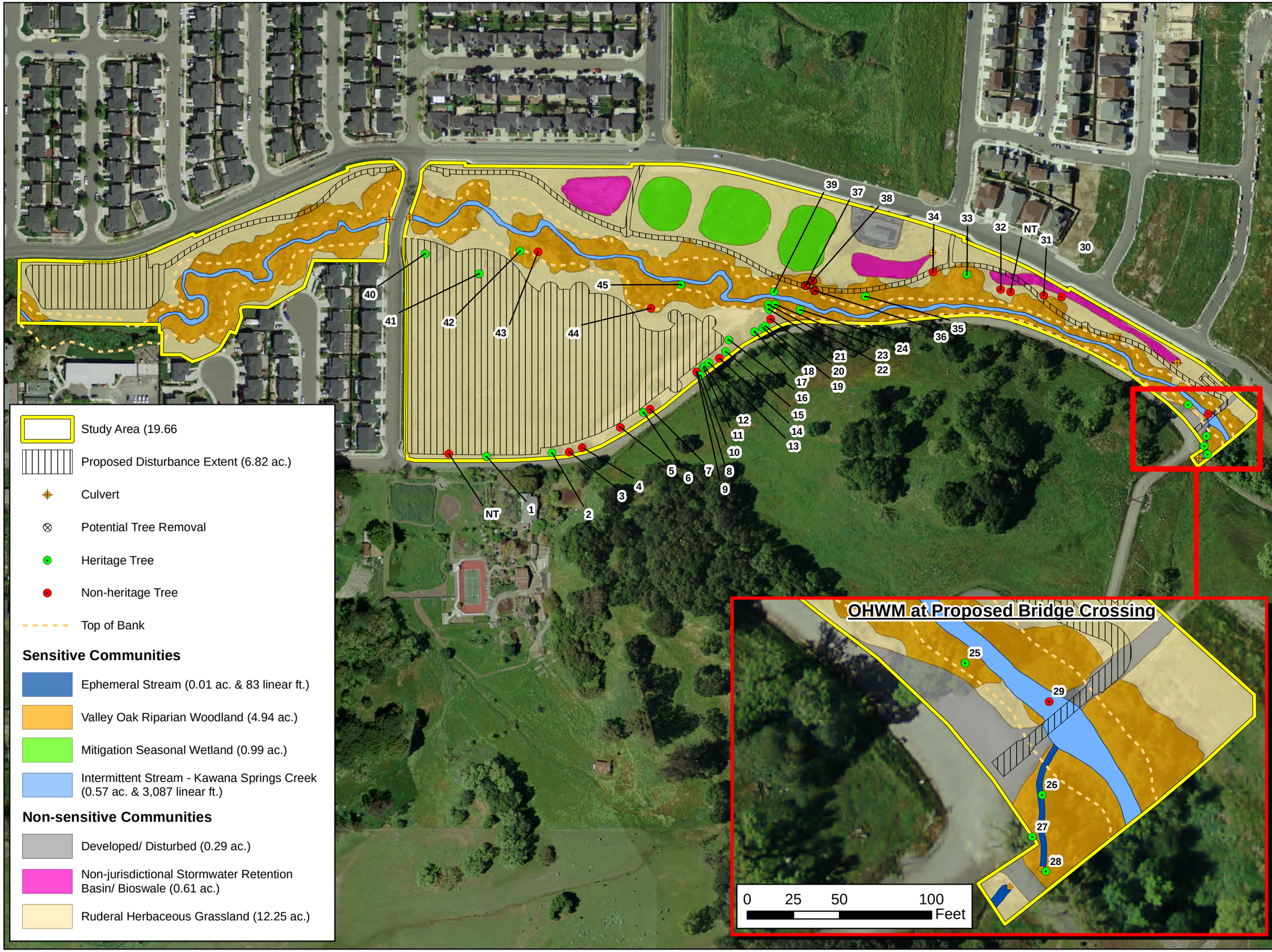
# Figure 2. Study Area Soils Map

Kawana Springs
Sonoma County, California

0 200 400 Feet

N

wra
ENVIRONMENTAL CONSULTANTS

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Kawana Springs

Sonoma County, California

Figure 3. Biological Communities and Potential Impacts

N W E S

0 100 200 300 Feet

Map Prepared Date: 2/19/2019
Map Prepared By: mrochelle
Base Source: Sonoma Veg 2011 Aerial
Data Source(s): WRA

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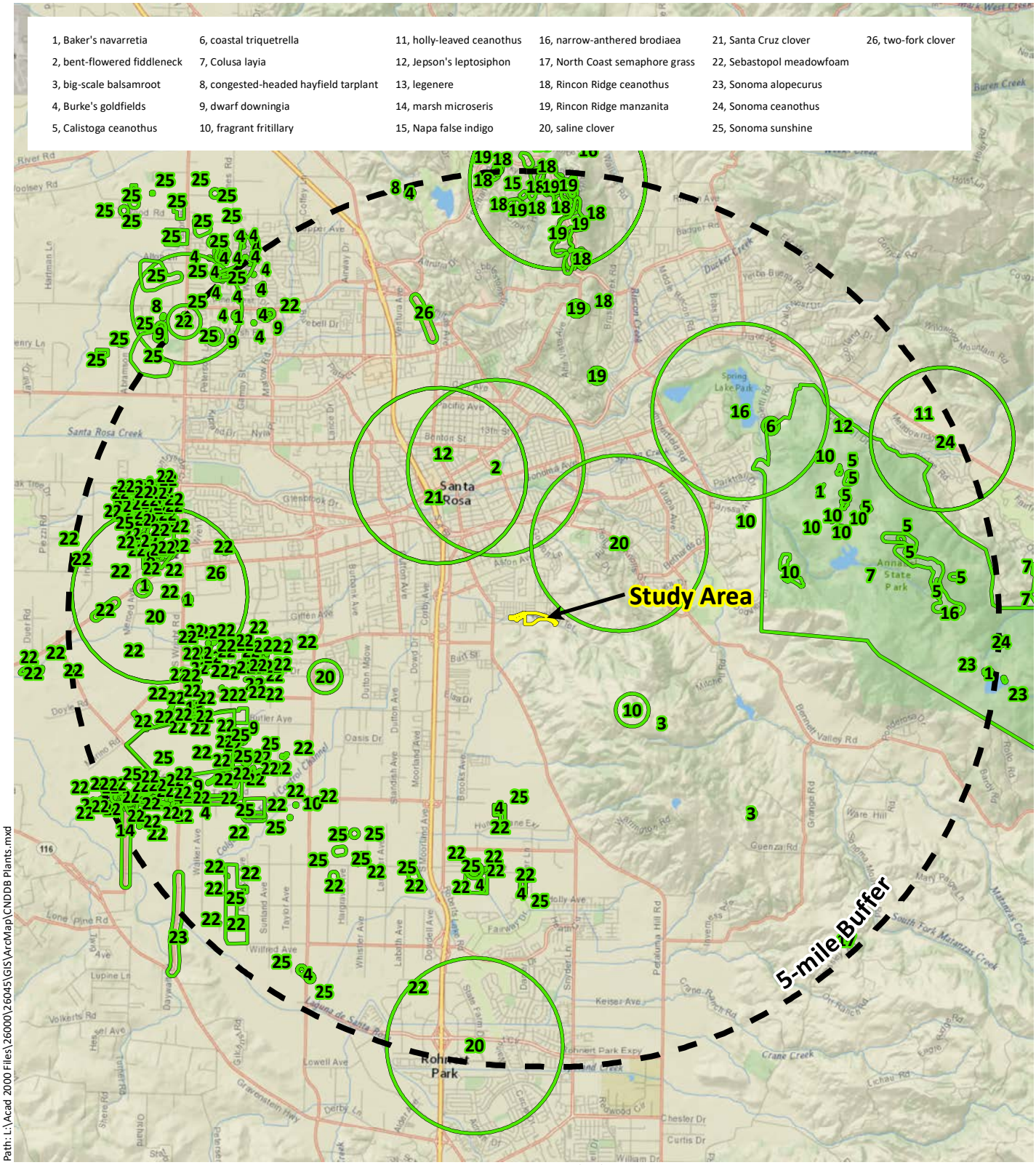


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**Sources**: National Geographic, CNDDB September 2018, WRA | Prepared By: mrochelle, 9/10/2018

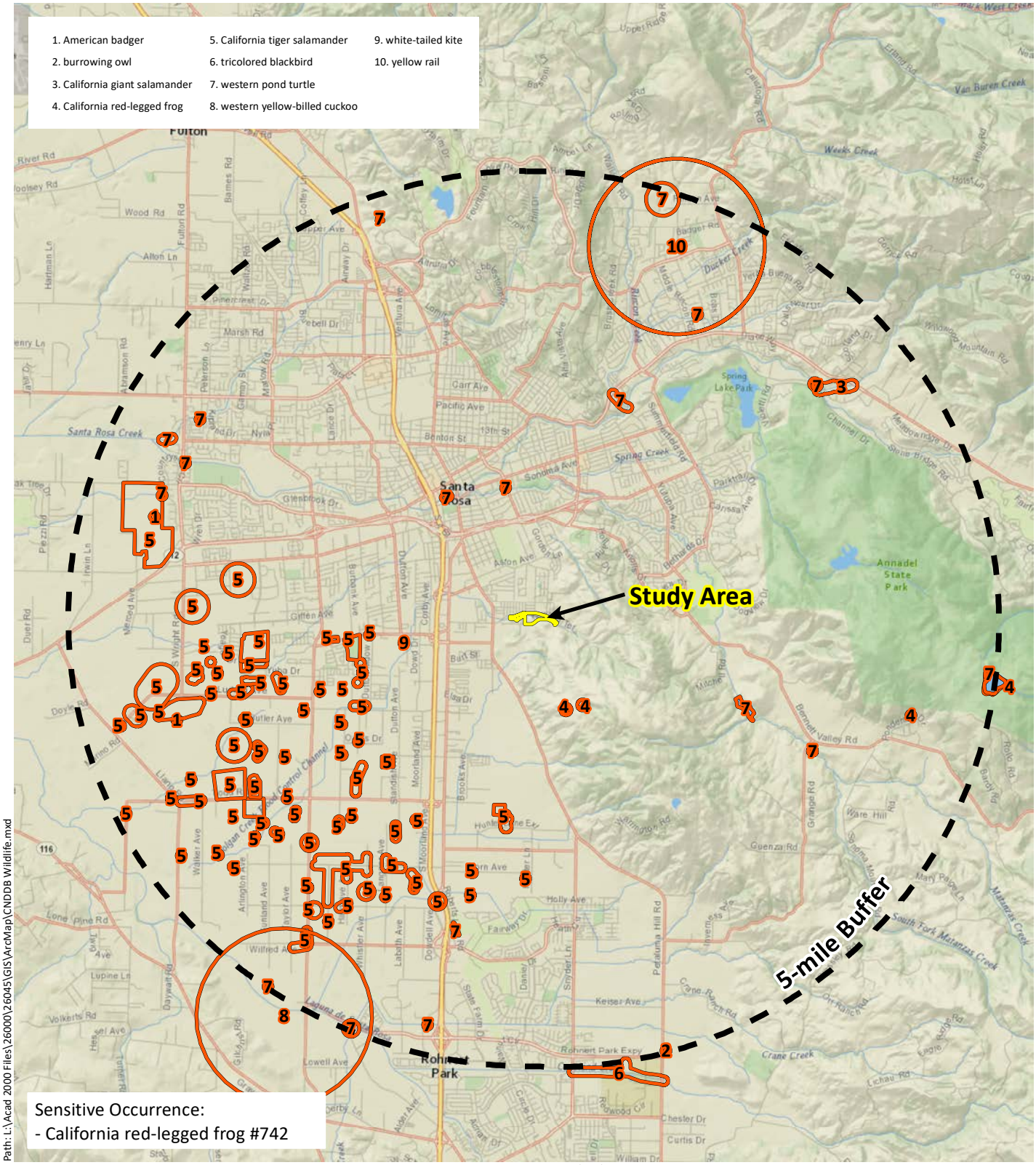
# Figure 4. Special-Status Plant Species Documented within 5-miles of the Study Area

Kawana Springs
Sonoma County, California

0 1 2 Miles

N

ENVIRONMENTAL CONSULTANTS

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**Sources**: National Geographic, CNDDB September 2018, WRA | Prepared By: mrochelle, 9/18/2018

# Figure 5. Special-Status Wildlife Species Documented within 5-miles of the Study Area

Kawana Springs
Sonoma County, California

0 1 2 Miles

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wra ENVIRONMENTAL CONSULTANTS

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# APPENDIX B

# LIST OF OBSERVED PLANT AND WILDLIFE SPECIES

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**Appendix B-1.** Plant Species Observed in the Study Area on December 21, 2016.

| Family | Scientific Name | Common Name | Origin | Form | Rarity Status[1] | CAL-IPC Status[2] |
|---|---|---|---|---|---|---|
| Anacardiaceae | *Toxicodendron diversilobum* | Poison oak | native | vine, shrub | - | - |
| Apiaceae | *Conium maculatum* | Poison hemlock | non-native (invasive) | perennial herb | - | Moderate |
| Apiaceae | *Daucus carota* | Carrot | non-native (invasive) | perennial herb | - | - |
| Apiaceae | *Foeniculum vulgare* | Fennel | non-native (invasive) | perennial herb | - | High |
| Apiaceae | *Torilis arvensis* | Field hedge parsley | non-native (invasive) | annual herb | - | Moderate |
| Asteraceae | *Artemisia douglasiana* | California mugwort | native | perennial herb | - | - |
| Asteraceae | *Baccharis pilularis* | Coyote brush | native | shrub | - | - |
| Asteraceae | *Centaurea solstitialis* | Yellow starthistle | non-native (invasive) | annual herb | - | High |
| Asteraceae | *Cichorium intybus* | Chicory | non-native | perennial herb | - | - |
| Asteraceae | *Erigeron canadensis* | Canada horseweed | native | annual herb | - | - |
| Asteraceae | *Helminthotheca echioides* | Bristly ox-tongue | non-native (invasive) | annual, perennial herb | - | Limited |
| Asteraceae | *Senecio vulgaris* | Common groundsel | non-native | annual herb | - | - |

| Family | Scientific Name | Common Name | Origin | Form | Rarity Status[1] | CAL-IPC Status[2] |
|---|---|---|---|---|---|---|
| Asteraceae | *Silybum marianum* | Milk thistle | non-native (invasive) | annual, perennial herb | - | Limited |
| Asteraceae | *Sonchus oleraceus* | Sow thistle | non-native | annual herb | - | - |
| Brassicaceae | *Brassica nigra* | Black mustard | non-native (invasive) | annual herb | - | Moderate |
| Brassicaceae | *Hirschfeldia incana* | Mustard | non-native (invasive) | perennial herb | - | Moderate |
| Brassicaceae | *Raphanus sativus* | Jointed charlock | non-native (invasive) | annual, biennial herb | - | Limited |
| Cupressaceae | *Hesperocyparis macrocarpa* | Monterey cypress | native | tree | Rank 1B.2* | - |
| Fabaceae | *Genista monspessulana* | French broom | non-native (invasive) | shrubb | - | High |
| Fabaceae | *Robinia pseudoacacia* | Black locust | non-native (invasive) | tree | - | Limited |
| Fabaceae | *Vicia sativa* | Spring vetch | non-native | annual herb, vine | - | - |
| Fabaceae | *Vicia villosa* | Hairy vetch | non-native (invasive) | annual herb, vine | - | - |
| Fagaceae | *Quercus agrifolia* | Coast live oak | native | tree | - | - |
| Fagaceae | *Quercus kelloggii* | California black oak | native | tree | - | - |

| Family | Scientific Name | Common Name | Origin | Form | Rarity Status[1] | CAL-IPC Status[2] |
|---|---|---|---|---|---|---|
| Fagaceae | *Quercus lobata* | Valley oak | native | tree | - | - |
| 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 molle* | Crane's bill geranium | non-native (invasive) | annual, perennial herb | - | - |
| Juncaceae | *Juncus patens* | Rush | native | perennial grasslike herb | - | - |
| Lamiaceae | *Mentha pulegium* | Pennyroyal | non-native (invasive) | perennial herb | - | Moderate |
| Lauraceae | *Umbellularia californica* | California bay | native | tree | - | - |
| Malvaceae | *Malva* sp. | - | - | - | - | - |
| Oleaceae | *Fraxinus latifolia* | Oregon ash | native | tree | - | - |
| Onagraceae | *Epilobium ciliatum* | Slender willow herb | native | perennial herb | - | - |
| Oxalidaceae | *Oxalis pes-caprae* | Bermuda buttercup | non-native (invasive) | perennial herb | - | Moderate |
| Plantaginaceae | *Plantago lanceolata* | Ribwort | non-native (invasive) | perennial herb | - | Limited |

| Family | Scientific Name | Common Name | Origin | Form | Rarity Status[1] | CAL-IPC Status[2] |
|---|---|---|---|---|---|---|
| Poaceae | *Avena barbata* | Slim oat | non-native (invasive) | annual, perennial grass | - | Moderate |
| 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 |
| Poaceae | *Cynosurus echinatus* | Dogtail grass | non-native (invasive) | annual grass | - | Moderate |
| Poaceae | *Elymus triticoides* | Beardless wild rye | native | perennial grass | - | - |
| Poaceae | *Festuca perennis* | Italian rye grass | non-native | annual, perennial grass | - | - |
| Poaceae | *Hordeum brachyantherum* | Meadow barley | native | perennial grass | - | - |
| Poaceae | *Hordeum marinum* ssp. *gussoneanum* | Barley | non-native (invasive) | annual grass | - | Moderate |
| Poaceae | *Phalaris aquatica* | Harding grass | non-native (invasive) | perennial grass | - | Moderate |
| Polygonaceae | *Rumex crispus* | Curly dock | non-native (invasive) | perennial herb | - | Limited |

| Family | Scientific Name | Common Name | Origin | Form | Rarity Status[1] | CAL-IPC Status[2] |
|---|---|---|---|---|---|---|
| Polygonaceae | *Rumex pulcher* | Fiddleleaf dock | non-native | perennial herb | - | - |
| Polypodiaceae | *Polypodium calirhiza* | Licorice fern | native | fern | - | - |
| Rosaceae | *Fragaria vesca* | Wild strawberry | native | perennial herb | - | - |
| Rosaceae | *Prunus cerasifera* | Cherry plum | non-native (invasive) | tree | - | Limited |
| Rosaceae | *Rosa californica* | California wild rose | native | shrub | - | - |
| Rosaceae | *Rubus armeniacus* | Himalayan blackberry | non-native (invasive) | shrub | - | High |
| Rubiaceae | *Galium aparine* | Cleavers | native | annual herb | - | - |
| Salicaceae | *Populus fremontii* ssp. *fremontii* | Cottonwood | native | tree | - | - |
| Salicaceae | *Salix lasiolepis* | Arroyo willow | native | tree, shrub | - | - |
| Sapindaceae | *Acer macrophyllum* | Bigleaf maple | native | tree | - | - |
| Sapindaceae | *Aesculus californica* | Buckeye | native | tree | - | - |
| Typhaceae | *Typha latifolia* | Broadleaf cattail | native | perennial herb (aquatic) | - | - |
| Viscaceae | *Phoradendron leucarpum* ssp. *tomentosum* | Mistletoe | native | shrub (parasitic) | - | - |

*Monterey cypress is not native to the Study Area. This species has been widely planted and naturalized outside of its native. CNPS rarity status only applies to two native occurrences which are not found in the Study Area (CNPS 2016b)

All species identified using the *Jepson Manual II: Vascular Plants of California* (Baldwin et al. 2012) and *Jepson eFlora* (Jepson Flora Project [eds.] 2016); Nomenclature follows *Jepson eFlora*.

[1]Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2016)

| | |
|---|---|
| FE: | Federal Endangered |
| FT: | Federal Threatened |
| SE: | State Endangered |
| ST: | State Threatened |
| SR: | State Rare |
| Rank 1A: | Plants presumed extirpated in California and either rare or extinct elsewhere |
| Rank 1B: | Plants rare, threatened, or endangered in California and elsewhere |
| Rank 2A: | Plants presumed extirpated in California, but more common elsewhere |
| Rank 2B: | 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 2016)

| | |
|---|---|
| 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 |

Table B-2. Wildlife Species Observed in the Study Area on December 21, 2016

| Common Name (status if applicable) | Species |
|---|---|
| **MAMMALS** | |
| black-tailed deer | *Odocoileus hemionus columbianus* |
| **BIRDS** | |
| acorn woodpecker | *Melanerpes formicivorus* |
| Anna's hummingbird | *Calypte anna* |
| wild turkey | *Meleagris gallopavo* |
| Brewer's blackbird | *Euphagus cyanocephalus* |
| Nuttall's woodpecker * | *Picoides nuttallii* |
| oak titmouse * | *Baeolophus inornatus* |
| violet-green swallow | *Tachycineta thalassina* |
| black phoebe | *Sayornis nigricans* |
| lesser goldfinch | *Spinus psaltria* |
| golden-crowned sparrow | *Zonotrichia atricapilla* |
| European starling | *Sturnus vulgaris* |
| turkey vulture | *Cathartes aura* |
| California quail | *Callipepla californica* |
| house wren | *Troglodytes aedon* |
| house finch | *Haemorhous mexicanus* |
| common raven | *Corvus corax* |
| northern flicker | *Colaptes auratus* |
| belted kingfisher | *Megaceryle alcyon* |
| downy woodpecker | *Picoides pubescens* |
| northern mockingbird | *Mimus polyglottos* |
| white-breasted nuthatch | *Sitta carolinensis* |
| **REPTILES** | |
| western fence lizard | *Sceloporus occidentalis* |
| **AMPHIBIANS** | |
| Pacific chorus frog | *Pseudacris regilla* |
| **INVERTEBRATES** | |
| Pipevine swallowtail | *Battus philenor* |
| swallowtail butterfly | *Anise sp.* |
| honey bee | *Apis sp.* |

* USFWS Birds of conservation concern (special-status species)

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# APPENDIX C

# POTENTIAL FOR SPECIAL-STATUS PLANT AND WILDLIFE SPECIES TO OCCUR IN THE STUDY AREA

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**Appendix C. Potential for Special-Status Plant and Wildlife Species to Occur in the Study Area.** Special- status plant and wildlife species table with the potential to occur within the vicinity of the Study Area (Santa Rosa, Healdsburg, Sebastopol, Two Rock, Cotati, Glen Ellen, Kenwood, Calistoga, and Mark West Springs USGS 7.5' topographic quadrangles) Results include database searches of California Native Plant Society (CNPS) Rare and Endangered Plant Inventory, California Natural Diversity Database (CNDDB, CDFW) as well as U.S. Fish and Wildlife Service Threatened and Endangered Species Lists and Santa Rosa Plain Conservation Strategy (2005), Santa Rosa Plain Programmatic Biological Opinion (2007).

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Franciscan onion<br>*Allium peninsulare* var. *franciscanum* | Rank 1B.2 | Cismontane woodland, valley and foothill grassland/clay, volcanic, often serpentine. Elevation ranges from 170 to 980 feet. Blooms (Apr), May-Jun. | **No Potential.** The Study Area lacks volcanic and serpentine substrates known to support this species. | No further recommendations for this species. |
| Sonoma alopecurus<br>*Alopecurus aequalis* var. *sonomensis* | FE, Rank 1B.1 | Marshes and swamps (freshwater), riparian scrub. Elevation ranges from 20 to 1200 feet. Blooms May-Jul. | **Unlikely.** The Study Area lacks large, intact marshes and swamps known to support this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Napa false indigo<br>*Amorpha californica* var. *napensis* | Rank 1B.2 | Broadleafed upland forest (openings), chaparral, cismontane woodland. Elevation ranges from 390 to 6560 feet. Blooms Apr-Jul. | **Unlikely.** Riparian woodland habitat within the Study Area is relatively disturbed, and dominated by vigorous non-native invasive species such as Himalayan blackberry, which would likely outcompete this species. The Study Area is below the documented elevation range, and the nearest documented occurrence is greater than five miles away. | No further recommendations for this species. |
| bent-flowered fiddleneck<br>*Amsinckia lunaris* | Rank 1B.2 | Coastal bluff scrub, cismontane woodland, valley and foothill grassland. Elevation ranges from 10 to 1640 feet. Blooms Mar-Jun. | **Unlikely.** Despite potentially suitable grassland habitat, previous and ongoing disturbance within the Study Area likely precludes this species. There is only one historic occurrence of this species within the Study Area vicinity from 1940 (CDFW 2018). | No further recommendations for this species. |
| slender silver moss<br>*Anomobryum julaceum* | Rank 4.2 | Broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest/damp rock and soil on outcrops, usually on roadcuts. Elevation ranges from 330 to 3280 feet. | **No Potential.** The Study Area lacks suitable habitat for this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Vine Hill manzanita<br>*Arctostaphylos densiflora* | SE, Rank 1B.1 | Chaparral (acid marine sand). Elevation ranges from 160 to 390 feet. Blooms Feb-Apr. | **No Potential.** The Study Area lacks chaparral and acidic marine sand substrate known to support this species. | No further recommendations for this species. |
| Rincon Ridge manzanita<br>*Arctostaphylos stanfordiana* ssp. *decumbens* | Rank 1B.1 | Chaparral (rhyolitic), cismontane woodland. Elevation ranges from 250 to 1210 feet. Blooms Feb-Apr (May). | **No Potential.** The Study Area lacks chaparral and rhyolitic substrate known to support this species. | No further recommendations for this species. |
| Brewer's milk-vetch<br>*Astragalus breweri* | Rank 4.2 | Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland (open, often gravelly)/often serpentine, volcanic. Elevation ranges from 300 to 2400 feet. Blooms Apr-Jun. | **No Potential.** Despite potentially suitable grassland habitat, the Study Area lacks gravelly soils derived from serpentine or volcanic substrate. | No further recommendations for this species. |
| Clara Hunt's milk-vetch<br>*Astragalus claranus* | FE, ST, Rank 1B.1 | Chaparral (openings), cismontane woodland, valley and foothill grassland/serpentine or volcanic, rocky, clay. Elevation ranges from 250 to 900 feet. Blooms Mar-May. | **No Potential.** The Study Area lacks serpentine or volcanic substrates known to support this species | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| big-scale balsamroot<br>*Balsamorhiza macrolepis* | Rank 1B.2 | Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentine. Elevation ranges from 300 to 5100 feet. Blooms Mar-Jun. | **Unlikely.** The Study Area lacks chaparral, cismontane woodland and serpentine substrates associated with this species. | No further recommendations for this species. |
| Sonoma sunshine<br>*Blennosperma bakeri* | FE, SE, Rank 1B.1 | Valley and foothill grassland (mesic), vernal pools. Elevation ranges from 30 to 360 feet (10 to 110 meters). Blooms Mar-May. | **Unlikely.** The Study Area lacks vernal pools known to support this species. Seasonal wetlands within the Study Area are constructed mitigation wetlands dominated by non-native annual grasses which likely outcompete many native annual forb species. The Study Area is located in area assessed by the Santa Rosa Plain Programmatic Biological Opinion (USFWS 2007) as “no listed plants in the area”. | No further recommendations for this species. |
| narrow-anthered brodiaea<br>*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. Blooms May-Jul. | **No Potential.** The Study Area lacks gravelly soils composed of volcanics. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Bolander's reed grass<br>*Calamagrostis bolanderi* | Rank 4.2 | Bogs and fens, broadleafed upland forest, closed-cone coniferous forest, coastal scrub, meadows and seeps (mesic), marshes and swamps (freshwater), north coast coniferous forest/mesic. Elevation ranges from 0 to 1490 feet. Blooms May-Aug. | **Unlikely.** The Study Area lacks the biological communities associated with this species. This species is more closely associated with coastal environments (Jepson eFlora 2018). | No further recommendations for this species. |
| Thurber's reed grass<br>*Calamagrostis crassiglumis* | Rank 2B.1 | Coastal scrub (mesic), marshes and swamps (freshwater). Elevation ranges from 30 to 200 feet. Blooms May-Aug. | **Unlikely.** The Study Area lacks coastal scrub, marshes and swamps associated with this species. | No further recommendations for this species. |
| serpentine reed grass<br>*Calamagrostis ophiditis* | Rank 4.3 | Chaparral (open, often north-facing slopes), lower montane coniferous forest, meadows and seeps, valley and foothill grassland/serpentine, rocky. Elevation ranges from 300 to 3490 feet. Blooms Apr-Jul. | **No Potential.** The Study Area lacks serpentine substrate known to support this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| pink star-tulip<br>*Calochortus uniflorus* | Rank 4.2 | Coastal prairie, coastal scrub, meadows and seeps, north coast coniferous forest. Elevation ranges from 30 to 3510 feet. Blooms Apr-Jun. | **Unlikely.** Despite potentially suitable grassland habitat, grasslands within the Study Area are relatively disturbed and dominated by non-native annual grasses that tend to outcompete small native perennial forbs such as this species. | No further recommendations for this species. |
| Mt. Saint Helena morning-glory<br>*Calystegia collina* ssp. *oxyphylla* | Rank 4.2 | Chaparral, lower montane coniferous forest, valley and foothill grassland/serpentine. Elevation ranges from 920 to 3310 feet. Blooms Apr-Jun. | **No Potential.** The Study Area lacks serpentine substrates known to support this species. | No further recommendations for this species. |
| swamp harebell<br>*Campanula californica* | Rank 1B.2 | Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, marshes and swamps (freshwater), north coast coniferous forest/mesic. Elevation ranges from 0 to 1330 feet. Blooms Jun-Oct. | **No Potential.** The Study Area lacks coastal wetland habitats associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| johnny-nip<br>*Castilleja ambigua* ssp. *ambigua* | Rank 4.2 | Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pools margins. Elevation ranges from 0 to 1430 feet. Blooms Mar-Aug. | **Unlikely.** The Study Area lacks mesic grassland and wetland habitat known to support this species. Grasslands within the Study Area have been previously disturbed and they are dominated by non-native annual grasses and forbs with dense thatch accumulation, likely outcompeting many annual native forbs such as this species. | No further recommendations for this species. |
| Pitkin Marsh paintbrush<br>*Castilleja uliginosa* | SE, Rank 1A | Marshes and swamps (freshwater). Elevation ranges from 790 to 790 feet (240 to 240 meters). Blooms Jun-Jul. | **No Potential.** The Study Area lacks large intact marshes and swamps known to support this species. This species was only known from Pitkin Marsh in Sebastapol, and is now presumed extinct (CNPS 2018). | No further recommendations for this species. |
| Rincon Ridge ceanothus<br>*Ceanothus confusus* | Rank 1B.1 | Closed-cone coniferous forest, chaparral, cismontane woodland/volcanic or serpentine. Elevation ranges from 250 to 3490 feet. Blooms Feb-Jun. | **No Potential.** The Study Area lacks the vegetation communities and substrates known to support this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Calistoga ceanothus<br>*Ceanothus divergens* | Rank 1B.2 | Chaparral (serpentine or volcanic, rocky). Elevation ranges from 560 to 3120 feet. Blooms Feb-Apr. | **No Potential.** The Study Area lacks chaparral and substrates known to support this species. | No further recommendations for this species. |
| Vine Hill ceanothus<br>*Ceanothus foliosus* var. *vineatus* | Rank 1B.1 | Chaparral. Elevation ranges from 150 to 1000 feet. Blooms Mar-May. | **No Potential.** The Study Area lacks chaparral habitat. | No further recommendations for this species. |
| glory brush<br>*Ceanothus gloriosus* var. *exaltatus* | Rank 4.3 | Chaparral. Elevation ranges from 100 to 2000 feet. Blooms Mar-Jun (Aug). | **No Potential.** The Study Area lacks chaparral habitat. | No further recommendations for this species. |
| holly-leaved ceanothus<br>*Ceanothus purpureus* | Rank 1B.2 | Chaparral, cismontane woodland/volcanic, rocky. Elevation ranges from 390 to 2100 feet. Blooms Feb-Jun. | **No Potential.** The Study Area lacks chaparral and woodland habitats and volcanic substrates. | No further recommendations for this species. |
| Sonoma ceanothus<br>*Ceanothus sonomensis* | Rank 1B.2 | Chaparral (sandy, serpentine or volcanic). Elevation ranges from 710 to 2620 feet. Blooms Feb-Apr. | **No Potential.** The Study Area lacks chaparral and substrates known to support this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| pappose tarplant<br>*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. Blooms May-Nov. | **No Potential.** The Study Area lacks alkaline soils known to support this species. | No further recommendations for this species. |
| Sonoma spineflower<br>*Chorizanthe valida* | FE, SE, Rank 1B.1 | Coastal prairie (sandy). Elevation ranges from 30 to 1000 feet (10 to 305 meters). Blooms Jun-Aug. | **No Potential.** The Study Area lacks coastal prairie and sandy soils. | No further recommendations for this species. |
| Brewer's clarkia<br>*Clarkia breweri* | Rank 4.2 | Chaparral, cismontane woodland, coastal scrub/often serpentine. Elevation ranges from 710 to 3660 feet (215 to 1115 meters). Blooms Apr-Jun. | **No Potential.** The Study Area lacks the vegetation communities and serpentine soils associated with this species. | No further recommendations for this species. |
| Vine Hill clarkia<br>*Clarkia imbricata* | FE, SE, Rank 1B.1 | Chaparral, valley and foothill grassland/acidic sandy loam. Elevation ranges from 160 to 250. Blooms Jun-Aug. | **No Potential.** The Study Area lacks chaparral and acidic sandy loam soils. This species is only known from two extant occurrences in the Vine Hill area north of Graton (CNPS 2018). | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| serpentine bird's-beak<br>*Cordylanthus tenuis* ssp. *brunneus* | Rank 4.3 | Closed-cone coniferous forest, chaparral, cismontane woodland/usually serpentine. Elevation ranges from 1560 to 3000 feet. Blooms Jul-Aug. | **No Potential.** The Study Area lacks the associated vegetation communities and serpentine substrates. | No further recommendations for this species. |
| Pennell's bird's-beak<br>*Cordylanthus tenuis* ssp. *capillaris* | FE, SR, Rank 1B.2 | Closed-cone coniferous forest, chaparral/serpentine. Elevation ranges from 150 to 1000 feet. Blooms Jun-Sep. | **No Potential.** The Study Area lacks the associated vegetation communities and serpentine substrates. | No further recommendations for this species. |
| Peruvian dodder<br>*Cuscuta obtusiflora* var. *glandulosa* | Rank 2B.2 | Marshes and swamps (freshwater). Elevation ranges from 50 to 920 feet. Blooms Jul-Oct. | **Unlikely.** The Study Area lacks large intact marsh habitat and many of the host plants preferred by this species (Jepson eFlora 2018). There is only one occurrence in the Study Area vicinity from 1946 (CDFW 2018). | No further recommendations for this species. |
| mountain lady's-slipper<br>*Cypripedium montanum* | Rank 4.2 | Broadleafed upland forest, cismontane woodland, lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 610 to 7300 feet. Blooms Mar-Aug. | **No Potential.** The Study Area lacks the vegetation communities associated with this species. This species is closely associated with montane enviroments. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Baker's larkspur<br>*Delphinium bakeri* | FE, SE, Rank 1B.1 | Broadleafed upland forest, coastal scrub, valley and foothill grassland/decomposed shale, often mesic. Elevation ranges from 260 to 1000 feet. Blooms Mar-May. | **No Potential.** The Study Area lacks the associated vegetation communities and decomposed shale substrates. This species is only known from one extant native occurrence along Marshall-Petaluma Road, approximately 18 miles south-southwest (SSW) of the Study Area (CDFW 2018). | No further recommendations for this species. |
| golden larkspur<br>*Delphinium luteum* | FE, SR, Rank 1B.1 | Chaparral, coastal prairie, coastal scrub/rocky. Elevation ranges from 0 to 330 feet. Blooms Mar-May. | **No Potential.** The Study Area lacks the associated vegetation communities and rocky substrates. | No further recommendations for this species. |
| dwarf downingia<br>*Downingia pusilla* | Rank 2B.2 | Valley and foothill grassland (mesic), vernal pools. Elevation ranges from 0 to 1460 feet. Blooms Mar-May. | **No Potential.** The Study Area lacks vernal pools associated with this species. | No further recommendations for this species. |
| streamside daisy<br>*Erigeron biolettii* | Rank 3 | Broadleafed upland forest, cismontane woodland, north coast coniferous forest/rocky, mesic. Elevation ranges from 100 to 3610 feet. Blooms Jun-Oct. | **No Potential.** The Study Area lacks rocky, mesic sites associated with this species. | No further recommendations for this species. |
| serpentine daisy<br>*Erigeron serpentinus* | Rank 1B.3 | Chaparral (serpentine, seeps). Elevation ranges from 200 to 2200 feet. Blooms May-Aug. | **No Potential.** The Study Area lacks serpentine seeps associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| slender cottongrass<br>*Eriophorum gracile* | Rank 4.3 | Bogs and fens, meadows and seeps, upper montane coniferous forest/acidic. Elevation ranges from 4200 to 9510 feet Blooms May-Sep. | **No Potential.** The Study Area acidic bogs and fens, and is well below the documented elevation range. | No further recommendations for this species. |
| fragrant fritillary<br>*Fritillaria liliacea* | Rank 1B.2 | Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland/often serpentine. Elevation ranges from 10 to 1350 feet. Blooms Feb-Apr. | **Unlikely.** Despite potentially suitable grassland habitat and clay soils, grasslands in the Study Area have been previously disturbed and they are dominated by non-native annual grasses and forbs with dense thatch accumulation, likely outcompeting many diminutive perennial native forbs such as this species. | No further recommendations for this species. |
| woolly-headed gilia<br>*Gilia capitata* ssp. *tomentosa* | Rank 1B.1 | Coastal bluff scrub, valley and foothill grassland/serpentine, rocky, outcrops. Elevation ranges from 30 to 720 feet. Blooms May-Jul. | **No Potential.** The Study Area lacks serpentine soils and rocky outcrops associated with this species. | No further recommendations for this species. |
| Boggs Lake hedge-hyssop<br>*Gratiola heterosepala* | SE, Rank 1B.2 | Marshes and swamps (lake margins), vernal pools/clay. Elevation ranges from 30 to 7790 feet. Blooms Apr-Aug. | **No Potential.** The Study Area lacks large intact marshes and swamps, or vernal pools associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| congested-headed hayfield tarplant *Hemizonia congesta* ssp. *congesta* | Rank 1B.2 | Valley and foothill grassland/sometimes roadsides. Elevation ranges from 70 to 1840 feet. Blooms Apr-Nov. | **Unlikely.** Despite potentially suitable grassland habitat and clay soils, grasslands in the Study Area have been previously disturbed and they are dominated by non-native annual grasses and forbs with dense thatch accumulation, likely outcompeting many native annual forbs such as this species. | No further recommendations for this species. |
| hogwallow starfish *Hesperevax caulescens* | Rank 4.2 | Valley and foothill grassland (mesic, clay), vernal pools (shallow)/sometimes alkaline. Elevation ranges from 0 to 1660 feet. Blooms Mar-Jun. | **No Potential.** The Study Area lacks vernal pools associated with this species. This species was included in the CNPS inventory database as a checklist for the Healdsburg quadrangle. However, this species is not documented in Sonoma or Marin counties (CCH 2018, Jepson eFlora 2018, CNPS 2018, Best et. al. 1996, Howell et. al. 2007 ). | No further recommendations for this species. |
| thin-lobed horkelia *Horkelia tenuiloba* | Rank 1B.2 | Broadleafed upland forest, chaparral, valley and foothill grassland/mesic openings, sandy. Elevation ranges from 160 to 1640 feet. Blooms May-Jul (Aug). | **No Potential.** The Study Area lacks thin, rocky or sandy soils associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| harlequin lotus<br>*Hosackia gracilis* | Rank 4.2 | Broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal prairie, coastal scrub, meadows and seeps, marshes and swamps, north coast coniferous forest, valley and foothill grassland/wetlands, roadsides. Elevation ranges from 0 to 2300 feet. Blooms Mar-Jul. | **Unlikely.** The Study Area lacks coastal wetland habitat most often associated with this species. | No further recommendations for this species. |
| coast iris<br>*Iris longipetala* | Rank 4.2 | Coastal prairie, lower montane coniferous forest, meadows and seeps/mesic. Elevation ranges from 0 to 1970 feet. Blooms Mar-May. | **No Potential.** The Study Area lacks coastal prairie and mesic coastal grasslands associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Burke's goldfields<br>*Lasthenia burkei* | FE, SE, Rank 1B.1 | Meadows and seeps (mesic), vernal pools. Elevation ranges from 50 to 1970 feet. Blooms Apr-Jun. | **Unlikely.** The Study Area lacks vernal pools associated with this species. Seasonal wetlands within the Study Area are relatively disturbed and dominated by non-native annual grasses which likely outcompete many native annual forb species. The Study Area is located in area assessed by the Santa Rosa Plain Programmatic Biological Opinion (USFWS 2007) as "no listed plants in the area". | No further recommendations for this species. |
| Baker's goldfields<br>*Lasthenia californica* ssp. *bakeri* | Rank 1B.2 | Closed-cone coniferous forest (openings), coastal scrub, meadows and seeps, marshes and swamps. Elevation ranges from 200 to 1710 feet. Blooms Apr-Oct. | **No Potential.** There is only one documented occurrence of this species in the vicinity of the Study Area from 1899 (CDFW 2018). The majority of documented occurrences in Sonoma County are closer to the coast, and centered around the Bodega Bay area. | No further recommendations for this species. |
| Contra Costa goldfields<br>*Lasthenia conjugens* | FE, Rank 1B.1 | Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/mesic. Elevation ranges from 0 to 1540 feet Blooms Mar-Jun. | **No Potential.** The Study Area lacks vernal pools and alkaline substrates associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Colusa layia<br>*Layia septrionalis* | Rank 1B.2 | Chaparral, cismontane woodland, valley and foothill grassland/sandy, serpentine or volcanics, often in blue oak (*Quercus agrifolia*) woodand. Elevation ranges from 330 to 3590 feet. Blooms Apr-May. | **No Potential.** The Study Area lacks volcanic and serpentine soils and blue oak woodland most often associated with this species. | No further recommendations for this species. |
| legenere<br>*Legenere limosa* | Rank 1B.1 | Vernal pools. Elevation ranges from 0 to 2890 feet. Blooms Apr-Jun. | **No Potential.** The Study Area lacks vernal pools associated with this species. | No further recommendations for this species. |
| bristly leptosiphon<br>*Leptosiphon acicularis* | Rank 4.2 | Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 180 to 4920 feet. Blooms Apr-Jul. | **Unlikely.** Despite potentially suitable grassland habitat, grasslands in the Study Area have been previously disturbed and they are dominated by non-native annual grasses and forbs with dense thatch accumulation, likely outcompeting many diminutive native annual forbs such as this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Jepson's leptosiphon<br>*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 lacks the vegetation communities and volcanic soils associated with this species. | No further recommendations for this species. |
| woolly-headed Lessingia<br>*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. Blooms Jun-Oct. | **No Potential.** The Study Area lacks serpentine soils known to support this species. | No further recommendations for this species. |
| Pitkin Marsh lily<br>*Lilium pardalinum* ssp. *pitkinense* | FE, SE, Rank 1B.1 | Cismontane woodland, meadows and seeps, marshes and swamps (freshwater)/mesic, sandy. Elevation ranges from 110 to 210 feet. Blooms Jun-Jul. | **No Potential.** The Study Area lacks large intact marsh habitat and sandy soils associated with this species. | No further recommendations for this species. |
| redwood lily<br>*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. Blooms Apr-Aug (Sep). | **No Potential.** The Study Area lacks the vegetation communities associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Sebastopol meadowfoam<br>*Limnanthes vinculans* | FE, SE, Rank 1B.1 | Meadows and seeps, valley and foothill grassland, vernal pools/vernally mesic. Elevation ranges from 50 to 1000 feet. Blooms Apr-May. | **Unlikely.** The Study Area lacks vernal pools associated with this species. Seasonal wetlands within the Study Area are constructed mitigation wetlands. The Study Area is located in area assessed by the Santa Rosa Plain Programmatic Biological Opinion (USFWS 2007) as "no listed plants in the area". | No further recommendations for this species. |
| Napa Lomatium<br>*Lomatium repostum* | Rank 4.3 | Chaparral, cismontane woodland/serpentine. Elevation ranges from 300 to 2720 feet. Blooms Mar-Jun. | **No Potential.** The Study Area lacks the vegetation communities and serpentine substrate known to support this species. | No further recommendations for this species. |
| Cobb Mountain lupine<br>*Lupinus sericatus* | Rank 1B.2 | Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 900 to 5000 feet. Blooms Mar-Jun. | **No Potential.** The Study Area lacks the associated vegetation communities and is well below the documented elevation range of the species. | No further recommendations for this species. |
| Mt. Diablo cottonweed<br>*Micropus amphibolus* | Rank 3.2 | Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland/rocky. Elevation ranges from 150 to 2710 feet. Blooms Mar-May. | **Unlikely.** The Study Area lacks rocky substrates known to support this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| marsh microseris<br>*Microseris paludosa* | Rank 1B.2 | Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. Elevation ranges from 20 to 1160 feet (5 to 355 meters). Blooms Apr-Jun (Jul). | **Unlikely.** Despite potentially suitable grassland habitat, grasslands in the Study Area have been previously disturbed and they are dominated by non-native annual grasses and forbs with dense thatch accumulation, likely outcompeting many native forbs such as this species. | No further recommendations for this species. |
| green monardella<br>*Monardella viridis* | Rank 4.3 | Broadleafed upland forest, chaparral, cismontane woodland. Elevation ranges from 330 to 3310 feet. Blooms Jun-Sep. | **No Potential.** The Study Area lacks the vegetation communities associated with this species. | No further recommendations for this species. |
| cotula navarretia<br>*Navarretia cotulifolia* | Rank 4.2 | Chaparral, cismontane woodland, valley and foothill grassland/adobe. Elevation ranges from 10 to 6000 feet. Blooms May-Jun. | **Unlikely.** Despite potentially suitable grassland habitat and clay soils, the disturbance regime within the Study Area and dense thatch accumulation from non-native annual grasses likely precludes this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Baker's navarretia<br>*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. Blooms Apr-Jul. | **No Potential.** The Study Area lacks vernal pools and alkaline soils associated with this species (CDFW 2018). | No further recommendations for this species. |
| many-flowered navarretia<br>*Navarretia leucocephala* ssp. *plieantha* | FE, SE, Rank 1B.2 | Vernal pools (volcanic ash flow). Elevation ranges from 100 to 3120 feet (30 to 950 meters). Blooms May-Jun. | **No Potential.** The Study Area lacks vernal pools and volcanic ash flow substrates associated with this species. | No further recommendations for this species. |
| Sonoma beardtongue<br>*Penstemon newberryi* var. *sonomensis* | Rank 1B.3 | Chaparral (rocky). Elevation ranges from 2300 to 4490 feet. Blooms Apr-Aug. | **No Potential.** The Study Area lacks chaparral and is well below the documented elevation range of this species | No further recommendations for this species. |
| Gairdner's yampah<br>*Perideridia gairdneri* ssp. *gairdneri* | Rank 4.2 | Broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools/vernally mesic. Elevation ranges from 0 to 2000 feet (0 to 610 meters). Blooms Jun-Oct. | **Unlikely.** The Study Area lacks seasonal wetland habitat that could support this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Calistoga popcornflower<br>*Plagiobothrys strictus* | FE, ST, Rank 1B.1 | Meadows and seeps, valley and foothill grassland, vernal pools/alkaline areas near thermal springs. Elevation ranges from 300 to 520 feet. Blooms Mar-Jun. | **No Potential.** This species is known from only two extant occurrences near Calistoga, where it is associated with hot springs (CNPS 2018) | No further recommendations for this species. |
| North Coast semaphore grass<br>*Pleuropogon hooverianus* | ST, Rank 1B.1 | Broadleafed upland forest, meadows and seeps, north coast coniferous forest/open areas, mesic. Elevation ranges from 30 to 2200 feet. Blooms Apr-Jun. | **No Potential.** The Study Area lacks forested wetland habitats known to support this species. | No further recommendations for this species. |
| nodding semaphore grass<br>*Pleuropogon refractus* | Rank 4.2 | Lower montane coniferous forest, meadows and seeps, north coast coniferous forest, riparian forest/mesic. Elevation ranges from 0 to 5250 feet. Blooms (Mar), Apr-Aug. | **No Potential.** The Study Area lacks forested wetland habitats known to support this species. | No further recommendations for this species. |
| Cunningham Marsh cinquefoil<br>*Potentilla uliginosa* | Rank 1A | Marshes and swamps/freshwater, permanent oligotrophic wetlands. Elevation ranges from 100 to 130. Blooms May-Aug. | **No Potential.** The Study Area lacks permanent oligotrophic wetlands. This species is presumed extinct. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| California alkali grass<br>*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 lacks alkaline substrates associated with this species. | No further recommendations for this species. |
| Lobb's aquatic buttercup<br>*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. Blooms Feb-May. | **Unlikely.** The Study Area lacks large seasonally ponded areas with standing water depths of 6 inches or greater necessary to support this species. | No further recommendations for this species. |
| white beaked-rush<br>*Rhynchospora alba* | Rank 2B.2 | Bogs and fens, meadows and seeps, marshes and swamps (freshwater). Elevation ranges from 200 to 6690 feet. Blooms Jul-Aug. | **No Potential.** The Study Area lacks large intact bogs, marshes and swamps associated with this species. | No further recommendations for this species. |
| California beaked-rush<br>*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. Blooms May-Jul. | **No Potential.** The Study Area lacks large intact bogs, marshes and swamps associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| brownish beaked-rush<br>*Rhynchospora capitellata* | Rank 2B.2 | Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest/mesic. Elevation ranges from 150 to 6560 feet. Blooms Jul-Aug. | **No Potential.** The Study Area lacks large intact bogs, marshes and swamps associated with this species. | No further recommendations for this species. |
| round-headed beaked-rush<br>*Rhynchospora globularis* | Rank 2B.1 | Marshes and swamps (freshwater). Elevation ranges from 150 to 200 feet. Blooms Jul-Aug. | **No Potential.** The Study Area lacks large intact bogs, marshes and swamps associated with this species. | No further recommendations for this species. |
| Napa checkerbloom<br>*Sidalcea hickmanii* ssp. *napensis* | Rank 1B.1 | Chaparral/rhyolitic. Elevation ranges from 1360 to 2000 feet. Blooms Apr-Jun. | **No Potential.** The Study Area lacks chaparral and rhyolitic substrates known to support this species. | No further recommendations for this species. |
| Kenwood Marsh checkerbloom<br>*Sidalcea oregana* ssp. *valida* | FE, SE, Rank 1B.1 | Marshes and swamps (freshwater). Elevation ranges from 380 to 490 feet. Blooms Jun-Sep. | **No Potential.** The Study Area lacks large intact marshes and swamps associated with this species. | No further recommendations for this species. |
| two-fork clover<br>*Trifolium amoenum* | FE, Rank 1B.1 | Coastal bluff scrub, valley and foothill grassland (sometimes serpentine). Elevation ranges from 20 to 1360 feet. Blooms Apr-Jun. | **Unlikely.** Despite potentially suitable grassland habitat present within the Study Area, grasslands within the Study Area are heavily disturbed. This species is only known from one natural extant occurrence in Marin County (CNPS 2018, | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE** | RECOMMENDATIONS*** |
|---|---|---|---|---|
| **Plants** | | | | |
| Santa Cruz clover<br>*Trifolium buckwestiorum* | Rank 1B.1 | Broadleafed upland forest, cismontane woodland, coastal prairie/gravelly, margins. Elevation ranges from 340 to 2000 feet. Blooms Apr-Oct. | **No Potential.** The Study Area lacks gravelly substrates known to support this species. | No further recommendations for this species. |
| saline clover<br>*Trifolium hydrophilum* | Rank 1B.2 | Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 980 feet. Blooms Apr-Jun. | **No Potential.** The Study Area lacks alkaline marshes and swamps known to support this species. | No further recommendations for this species. |
| coastal triquetrella<br>*Triquetrella californica* | Rank 1B.2 | Coastal bluff scrub, coastal scrub/soil. Elevation ranges from 30 to 330 feet. | **No Potential.** The Study Area lacks coastal scrub habitats. | No further recommendations for this species. |
| oval-leaved viburnum<br>*Viburnum ellipticum* | Rank 2B.3 | Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 600 to 4200 feet. Blooms May-June. | **No Potential.** The Study Area lacks the vegetation communities associated with this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| **Mammals** | | | | |
| American badger<br>*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. Preys on burrowing rodents. | **Unlikely.** The Study Area is bordered to the north and west by residential development. and is not contiguous with typical open grassland inhabited by this species for dens and foraging. This species has no nearby occurrences documented (CDFW 2018). | No further recommendations for this species. |
| fringed myotis<br>*Myotis thysanodes* | WBWG: High Priority | Associated with a wide variety of habitats including mixed coniferous-deciduous forest and redwood/ sequoia groves. Roosts in caves, mines, buildings, and crevices. Separate day and night roosts may be used. | **Unlikely.** The Study Area does not contain caves, mines, buildings, or other likely roost sites. This species may occasionally forage within the Study Area. | No further recommendations for this species. |
| hoary bat<br>*Lasiurus cinereus* | WBWG: Medium Priority | Prefers open forested 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. | **Moderate Potential.** The Study Area contains trees with sufficient foliage for cover and potential roosting structure for this species. In addition, Kawana Springs Creek may provide adequate water for this species. | See Section 5.2 for recommended measures. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| long-legged myotis<br>*Myotis volans* | WBWG: High Priority | Primarily found in coniferous forests, but also occurs seasonally in riparian and desert habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings. | **Moderate Potential.** The Study Area contains riparian habitat with potential for hollow trees suitable for roosting by this speices. | See Section 5.2 for recommended measures. |
| pallid bat<br>*Antrozous pallidus* | SSC, WBWG: High Priority | Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include crevices in rocky outcrops and cliffs, caves, mines, trees and various human structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. | **Moderate Potential.** The Study Area contains trees of sufficient size to potentially provide roosting structure for this species. In addition, Kawana Springs Creek may provide adequate water for this species. | See Section 5.2 for recommended measures. |
| Townsend's big-eared bat<br>*Corynorhinus townsendii* | SSC, WBWG: High Priority | 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 and males roost singly or in small groups. Foraging occurs in open forest habitats where they glean moths from vegetation. | **Unlikely.** The Study Area does not contain the caves, mines, buildings, or other likely roost sites. This species may occasionally forage within the Study Area. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| western red bat<br>*Lasiurus blossevillii* | SSC, WBWG: High Priority | Highly migratory and typically solitary, roosting primarily in the foliage of trees or shrubs. Roosts are usually in broad-leaved trees including cottonwoods, sycamores, alders, and maples. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. | **Unlikely.** The Study Area does not contain tree species and types to support maternity roosts. | No further recommendations for this species. |
| **Birds** | | | | |
| American peregrine falcon<br>*Falco peregrinus anatum* | FD, SD, CFP, BCC | Winters throughout Central Valley. Requires protected cliffs and ledges for cover. Feeds on a variety of birds, and some mammals, insects, and fish. | **Unlikely.** This species may occasionally forage within the Study Area, however the Study Area does not contain nesting habitat for this species. No cliff, ledge, or high-rise buildings are present. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| bank swallow<br>*Riparia riparia* | ST | Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Historical nesting range in southern and central areas of California has been eliminated by habitat loss. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co. | **No Potential.** The Study Area does not contain the riparian cliff habitat necessary for this species. | No further recommendations for this species. |
| burrowing owl<br>*Athene cunicularia* | SSC, BCC | Frequents open grasslands and shrublands with perches and burrows. Preys upon insects, small mammals, reptiles, birds, and carrion. Nests and roosts in old burrows of small mammals. | **Unlikely.** This species may occasionally forage in the Study Area, but the Study Area lacks small mammal burrows essential for nesting and common in foraging habitat. This species is extremely rare in Sonoma County (Madrone Audubon Society 1995). | No further recommendations for this species. |
| ferruginous hawk<br>*Buteo regalis* | BCC | Winter visitor to open habitats, including grasslands, sagebrush flats, scrub, and low foothills surrounding valleys. Preys on mammals. Does not breed in California. | **Unlikely.** The Study Area is outside of the breeding range of this species; however, this species may occasionally forage within the Study Area during the winter. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| golden eagle<br>*Aquila chrysaetos* | CFP, BCC | Found in rolling foothills with open grasslands, scattered trees, and cliff-walled canyons. | **Unlikely.** Typical nesting trees and wide-open foraging grasslands are not present within the Study Area or vicinity. The Study Area is bordered to the north and west by residential development. This species may be seen flying over the Study Area. | No further recommendations for this species. |
| grasshopper sparrow<br>*Ammodramus savannarum* | SSC | Frequents dense tall, dry or well-drained grasslands, especially native grasslands with mixed grasses and forbs for foraging and nesting. Nests on ground at base of overhanging clumps of vegetation. | **Unlikely.** The Study Area does not provide well-drained and open grasslands typical of this species. This species is more common in the coastal hills and dry interior hills. | No further recommendations for this species. |
| great blue heron<br>*Ardea herodias* | none (breeding sites protected by CDFW); CDF sensitive | Year-round resident. Nests colonially or semi-colonially in tall trees and on cliffs, also sequested terrestrial substrates. Breeding sites usually in close proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates. | **Unlikely.** The Study Area does not contain typical foraging habitat and is unlikely to support colonial breeding by this species. | No further recommendations for this species. |
| tricolored blackbird<br>*Agelaius tricolor* | SSC, BCC, SC | Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs. | **Unlikely.** The Study Area is primarily oak woodland and does not contain dense riparian habitat such as cattails or tules typical for nesting by this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| western yellow-billed cuckoo<br>*Coccyzus americanus occidentalis* | FT, SE, BCC | Nests in riparian jungles of willow often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape. Species requires an average of 17 hectares per pair for foraging and nesting. | **Unlikely.** The Study Area does not contain contiguous habitat of sufficient size to support this species' nesting and foraging. Additionally, documented occurrences in the vicinity are from 1975 and 1923 (CDFW 2018). | No further recommendations for this species. |
| white-tailed kite<br>*Elanus leucurus* | CFP | Year-long resident of coastal and valley lowlands, including agricultural areas. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians. | **Moderate Potential.** The Study Area provides trees of suitable size for nesting as well as nearby foraging habitat. | See Section 5.2 for recommended measures. |
| yellow rail<br>*Coturnicops noveboracensis* | BCC, SSC | Summer resident in eastern Sierra Nevada in Mono County, breeding in shallow freshwater marshes and wet meadows with dense vegetation. Also a rare winter visitor along the coast and other portions of the state. Extremely cryptic. | **No potential.** The Study Area does not contain freshwater marsh or wet meadows suitable for breeding by this species. | No further recommendations for this species. |
| bald eagle<br>*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.** The Study Area does not contain large trees in close association with large bodies of water. Bald eagles may occasionally forage within the Study Area. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| northern spotted owl<br>*Strix occidentalis caurina* | FT, ST, SSC | Year-round resident in dense, structurally complex forests, primarily those with old-growth conifers. Nests on platform-like substrates in the forest canopy, including in tree cavities. Preys on mammals. | **No Potential.** The Study Area does not contain old growth conifer forests or managed second growth forests of sufficient size that are required by this species for foraging and nesting. There are no activity centers or observations recorded within 6 miles of the Study Area (CDFW 2018). | No further recommendations for this species. |
| black swift<br>*Cyseloides niger* | SSC, BCC | Nesting sites are associated with sheer cliffs and waterfalls, either near the coast or in the mountains. Does not winter in California. | **No Potential.** The Study Area and vicinity lack cliff or waterfall habitat that are required for this species' nesting. | No further recommendations for this species. |
| Vaux's swift<br>*Chaetura vauxi* | SSC | Forages high in the air over most terrain and habitats but prefers rivers/lakes. Requires large hollow trees for nesting. | **Unlikely.** Although the Study Area contains potentially suitable riparian habitat and mature trees which may be suitable for nesting by this species, this species typically requires large, hollow trees for nesting which are not present in the Study Area. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| Allen's hummingbird<br>*Selasphorus sasin* | BCC | Found in a wide variety of habitats that provide nectar-producing flowers. A common migrant and uncommon summer resident of California. | **Moderate Potential**. The Study Area is within the breeding range of this species and contains suitable nesting trees. This species has been documented in the vicinity of the Study Area (eBird 2018). | See Section 5.2 for recommended measures. |
| olive-sided flycatcher<br>*Contopus cooperi* | SSC, BCC | Most often found in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain. | **Unlikely.** The Study Area does not contain sufficient forested or open lake/meadow habitat necessary for this species. This species prefers mountainous conifer habitat not present within the Study Area. | No further recommendations for this species. |
| yellow warbler<br>*Setophaga petechia* | SSC, BCC | Nests in riparian stands of willows, cottonwoods, aspens, sycamores, and alders. Also nests in montane shrubbery in open conifer forests. | **Moderate Potential.** The Study Area contains riparian habitat which may be suitable for nesting or foraging by this species. | See Section 5.2 for recommended measures. |
| yellow-breasted chat<br>*Icteria virens* | SSC | Breeds in riparian thickets and woodlands, particularly those dominated by willows and cottonwoods. | **Unlikely.** Although the Study Area contains mature valley oak riparian woodland, this species typically requires expansive willow-dominated riparian thickets which are not present in the Study Area. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| oak titmouse<br>*Baeolophus inornatus* | BCC | Occurs year-round in woodland and savannah habitats where oaks are present, as well as riparian areas. Nests in tree cavities. | **High Potential.** Suitable oak trees are present within the Study Area, providing year-round habitat for this species. This species is locally common (eBird 2018). | See Section 5.2 for recommended measures. |
| Lawrence's goldfinch<br>*Carduelis lawrencei* | BCC | Inhabits oak woodlands, chaparral, pinyon-juniper associations, and weedy areas near water during the breeding season; highly erratic and localized in occurrence. | **Moderate Potential.** The Study Area contains oak woodland suitable for nesting and foraging by this species. | See Section 5.2 for recommended measures |
| Nuttall's woodpecker<br>*Picoides nuttalli* | BCC | Year-round resident in lowland woodlands throughout much of California west of the Sierra Nevada. Typical habitat is dominated by oaks; also occurs in riparian woodland. Nests in tree cavities. | **High Potential.** The Study Area contains oak woodland suitable for nesting and foraging by this species. This species has been observed near the Study Area (CDFW 2018). | See Section 5.2 for recommended measures. |
| **Reptiles and Amphibians** | | | | |
| California giant salamander<br>*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. | **Moderate Potential.** The Study Area contains woodland and aquatic habitat suitable for this species. The Study Area is surrounded by development to the north and west, but is contiguous with potentially suitable habitat to the east and south. | See Section 5.2 for recommended measures. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| California red-legged frog<br>*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. | **Moderate Potential.** Kawana Springs Creek may be suitable non-breeding aquatic habitat. Suitable aquatic breeding habitat exists within 1-mile of the Study Area. This species was observed as recently as 2016 approximately 1-mile from the Study Area (CDFW 2018). This species may utilize grassland and woodland within the Study Area as upland or dispersal habitat. | See Section 5.2 for recommended measures |
| California tiger salamander<br>*Ambystoma californiense* | FE, ST | Inhabits annual grassland habitat and mammal burrows. Seasonal ponds and vernal pools crucial to breeding. Federal Endangered status limited to populations in Sonoma and Santa Barbara counties. | **Unlikely.** Nearby recorded occurrences are associated with the Santa Rosa Plain. The nearest recorded adult occurrence is over 1.5 miles from the Project Area (CDFW 2018). Work within the Project Area is not likely to impact CTS. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| foothill yellow-legged frog<br>*Rana boylii* | SSC | Found in or near rocky streams in a variety of habitats. Feed on both aquatic and terrestrial invertebrates. | **Moderate Potential.** The Study Area contains a small, low gradient, intermittent stream that could support metamorphosed FYLF during part of the year. Connectivity to more suitable downstream habitats that may support breeding is compromised by dense urban surroundings. However, because some habitat exists for the species and several recent records for the species are present in the City of Santa Rosa (iNaturalist.org 2018), there is potential for FYLF to be present in the Study Area. | See Section 5.2 for recommended measures |
| red-bellied newt<br>*Taricha rivularis* | SSC | Inhabits coastal redwood forests and occasionally other forest types. Adults remain in breeding stream drainages in the non-breeding season. Breeding habitats are often fast-moving streams. Stagnant water sources are often avoided. | **Unlikely.** The Study Area does not contain the forested habitat typical for this species. Additionally, this nearest recorded occurrence is over 12 miles from the Study Area (CDFW 2018). | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| western pond turtle<br>*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 shelter. | **Moderate Potential.** The Study Area contains an intermittent stream which could support this species through part of the year. There are multiple recorded occurrences of this species within 5-miles of the Study Area (CDFW, 2018). | See Section 5.2 for recommended measures |
| **Fish** | | | | |
| Coho salmon - southern Oregon/northern California ESU<br>*Oncorhynchus kisutch* | FT, ST, SSC | Occurs in inland and in coastal marine waters from the Cape Blanco, Oregon, through Punta Gorda, California. Adult coho salmon enter fresh water from September through January to spawn. Requires beds of medium to small gravel substrate and sufficient dissolved oxygen for spawning. Rearing habitat consists of riparian cover, cool water and sufficient dissolved oxygen. | **No Potential.** The Study Area does not contain suitable streams, rivers or other perennial waters to support this species. | No further recommendations for this species. |
| Navarro roach<br>*Lavinia symmetricus navarroensis* | SSC | Habitat generalists. Found in warm intermittent streams as well as cold, well-aerated streams. | **No Potential.** The Study Area does not contain suitable streams, rivers or other perennial waters to support this species. | No further recommendations for this species. |

| SPECIES | STATUS* | HABITAT | POTENTIAL FOR OCCURRENCE | RESULTS AND RECOMMENDATIONS |
|---|---|---|---|---|
| **WILDLIFE** | | | | |
| Russian River tule perch<br>*Hysterocarpus traski pomo* | SSC | Found in clear, flowing freshwater with abundant vegetation and overhanging cover. Confined to the Russian River and tributaries. | **No Potential.** The Study Area does not contain suitable streams, rivers or other perennial waters to support this species. | No further recommendations for this species. |
| steelhead - Central California Coast ESU<br>*Oncorhynchus mykiss irideus* | FT | From Russian River south to Soquel Creek and Pajaro River. Also San Francisco and San Pablo Bay Basins. | **No Potential.** The Study Area does not contain suitable streams, rivers or other perennial waters to support this species. | No further recommendations for this species. |
| **Invertebrates** | | | | |
| California freshwater shrimp<br>*Syncaris pacifica* | FE, SE, SSI | Endemic to Marin, Napa, and Sonoma Counties. Found in shallow pools away from streamflow in low gradient streams where riparian cover is moderate to heavy. | **Unlikely.** The Study Area does not contain perennial stream habitat with suitable shallow pools to support this species. | No further recommendations for this species. |

*** Key to status codes:**

| | |
|---|---|
| FE | Federal Endangered |
| FT | Federal Threatened |
| FD | Federal Delisted |
| SE | State Endangered |
| SD | State Delisted |
| ST | State Threatened |
| SSC | Species of Special Concern |
| BCC | Bird of Conservation Concern |
| CFP | CDFW Fully Protected Species |

California Rare Plant Rank (CRPR)

| | |
|---|---|
| Rank 1A | CRPR 1A: Plants presumed extinct in California |
| Rank 1B | CRPR 1B: Plants rare, threatened or endangered in California and elsewhere |
| Rank 2A | CRPR 2A: Plants presumed extirpated in California, but more common elsewhere |

| | |
|---|---|
| Rank 2B | CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere |
| Rank 3 | CRPR 3: Plants about which CNPS needs more information (a review list) |
| Rank 4 | CRPR 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 |

****Potential to Occur:**
No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (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.

*****Results and Recommendations:**
Present. Species was observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.
Assumed Present. Species has a high likelihood of occurring and actions to avoid/mitigate impacts are recommended; surveys not conducted.
Assumed Absent. Species is assumed to not be present or utilize the site due to a lack of key habitat components.
Not Observed. Species was not observed during protocol-level surveys.

# APPENDIX D

# SITE PHOTOGRAPHS

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Photograph 1. Photograph depicting previously disturbed ruderal herbaceous grassland in the southern portion of the Study Area, south of Kawana Springs Creek. Photo facing west

Photograph 2. Photograph depicting valley oak riparian woodland along Kawana Springs Creek in the western portion of the Study Area. Photo facing south.

Photograph 3. Photograph depicting Kawana Springs Creek, an intermittent, USGS 'blue-line' stream within the eastern portion of the Study Area. Photo facing west (downstream).

Photograph 4. Photograph depicting non-jurisdictional stormwater retention bioswales in the northeastern portion of the Study Area. Photo facing west.

Photograph 5. Photo depicting mitigation seasonal wetland in the northeastern portion of the Study Area.

Photograph 6. Photograph depicting confluence of ephemeral stream and intermittent stream (Kawana Springs Creek), at the site of the proposed bridge crossing.

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# APPENDIX E

# TREE SURVEY TABLE

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Appendix E- Kawana Springs Community Park Tree Survey

| Tag_ID | Scientific Name | Common Name | Multistem | Total Circumference (inches) | Total DBH (inches) | Heritage Tree (Y/N) |
|---|---|---|---|---|---|---|
| 1 | *Quercus agrifolia* | coast live oak | Yes | 93.81 | 29.88 | Yes |
| 2 | *Quercus agrifolia* | coast live oak | Yes | 163.88 | 52.19 | Yes |
| 3 | *Quercus agrifolia* | coast live oak | No | 40.97 | 13.05 | No |
| 4 | *Quercus agrifolia* | coast live oak | No | 27.91 | 8.89 | No |
| 5 | *Quercus agrifolia* | coast live oak | Yes | 37.41 | 11.91 | No |
| 6 | *Quercus agrifolia* | coast live oak | Yes | 76.59 | 24.39 | Yes |
| 7 | *Quercus agrifolia* | coast live oak | No | 50.24 | 16.00 | No |
| 8 | *Quercus agrifolia* | coast live oak | No | 24.94 | 7.94 | No |
| 9 | *Quercus agrifolia* | coast live oak | No | 32.66 | 10.40 | No |
| 10 | *Quercus lobata* | valley oak | No | 64.13 | 20.42 | Yes |
| 11 | *Quercus agrifolia* | coast live oak | Yes | 72.44 | 23.07 | Yes |
| 12 | *Quercus agrifolia* | coast live oak | Yes | 62.34 | 19.85 | Yes |
| 13 | *Quercus agrifolia* | coast live oak | Yes | 152.00 | 48.41 | Yes |
| 14 | *Quercus agrifolia* | coast live oak | No | 40.97 | 13.05 | No |
| 15 | *Quercus agrifolia* | coast live oak | Yes | 122.31 | 38.95 | Yes |
| 16 | *Quercus agrifolia* | coast live oak | No | 62.80 | 20.00 | Yes |
| 17 | *Quercus agrifolia* | coast live oak | No | 67.09 | 21.37 | Yes |
| 18 | *Quercus agrifolia* | coast live oak | Yes | 164.47 | 52.38 | Yes |
| 19 | *Quercus agrifolia* | coast live oak | Yes | 131.22 | 41.79 | Yes |
| 20 | *Quercus agrifolia* | coast live oak | No | 42.75 | 13.61 | No |
| 21 | *Quercus agrifolia* | coast live oak | No | 70.06 | 22.31 | Yes |
| 22 | *Aesculus californica* | buckeye | Yes | 39.78 | 12.67 | Yes |
| 23 | *Quercus agrifolia* | coast live oak | Yes | 106.88 | 34.04 | Yes |
| 24 | *Quercus agrifolia* | coast live oak | No | 0.00 | 36.00 | Yes |
| 25 | *Quercus lobata* | valley oak | No | 0.00 | 10.90 | Yes |
| 26 | *Aesculus californica* | buckeye | Yes | 77.19 | 24.58 | Yes |
| 27 | *Quercus lobata* | valley oak | No | 0.00 | 38.00 | Yes |
| 28 | *Quercus agrifolia* | coast live oak | Yes | 86.69 | 27.61 | Yes |
| 29 | *Salix lasiolepis* | arroyo willow | Yes | 39.19 | 12.48 | No |
| 30 | *Quercus agrifolia* | coast live oak | No | 12.56 | 4.00 | No |
| 31 | *Quercus agrifolia* | coast live oak | No | 13.19 | 4.20 | No |
| NT | *Quercus lobata* | valley oak | No | 9.42 | 3.00 | No |
| 32 | *Quercus lobata* | valley oak | No | 12.56 | 4.00 | No |
| 33 | *Quercus lobata* | valley oak | No | 0.00 | 12.40 | Yes |
| 34 | *Prunus cerasifera* | cherry plum | Yes | 18.84 | 6.00 | No |
| 35 | *Quercus lobata* | valley oak | No | 125.60 | 40.00 | Yes |
| 36 | *Unknown (dead)* | Unknown (dead) | No | 85.50 | 27.23 | No |
| 37 | *Unknown (dead)* | Unknown (dead) | No | 0.00 | 37.00 | No |
| 38 | *Prunus cerasifera* | cherry plum | Yes | 39.78 | 12.67 | No |
| 39 | *Quercus agrifolia* | coast live oak | No | 119.32 | 38.00 | Yes |
| 40 | *Quercus lobata* | valley oak | No | 78.38 | 24.96 | Yes |
| 41 | *Quercus lobata* | valley oak | No | 92.63 | 29.50 | Yes |
| 42 | *Aesculus californica* | buckeye | Yes | 163.88 | 52.19 | Yes |

| | | | | | | |
|---|---|---|---|---|---|---|
| 43 | *Fraxinus latifolia* | Oregon ash | No | 0.00 | 18.00 | No |
| 44 | *Quercus agrifolia* | coast live oak | No | 40.38 | 12.86 | No |
| 45 | *Quercus agrifolia* | coast live oak | No | 94.20 | 30.00 | Yes |
| No Tag | *Prunus cerasifera* | cherry plum | Yes | 52.25 | 16.64 | No |

# APPENDIX B
# EDR RADIUS MAP REPORT

Kawana Springs Community Park

Kawana Springs Community Park

Santa Rosa, CA 95404

Inquiry Number: 4803087.3

December 12, 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

12/12/16

| Site Name: | Client Name: |
|---|---|
| Kawana Springs Community P | David Powers & Associates |
| Kawana Springs Community P | 1871 The Alameda |
| Santa Rosa, CA 95404 | San Jose, CA 95126 |
| EDR Inquiry # 4803087.3 | Contact: Tali Ashurov |

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by David Powers & Associates 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 #** 3565-4F7F-9DC9

**PO #** NA

**Project** Kawana Springs Community Park

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 #: 3565-4F7F-9DC9

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

David Powers & Associates (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.

Kawana Springs Community Park

Kawana Springs Community Park

Santa Rosa, CA 95404

Inquiry Number: 4803087.5

December 13, 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

12/13/16

**Site Name:**

Kawana Springs Community P
Kawana Springs Community P
Santa Rosa, CA 95404
EDR Inquiry # 4803087.5

**Client Name:**

David Powers & Associates
1871 The Alameda
San Jose, CA 95126
Contact: Tali Ashurov

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 |
| 2006 | 1"=500' | Flight Year: 2006 | USDA/NAIP |
| 2005 | 1"=500' | Flight Year: 2005 | USDA/NAIP |
| 1993 | 1"=500' | Acquisition Date: July 10, 1993 | USGS/DOQQ |
| 1985 | 1"=500' | Flight Date: February 04, 1985 | USGS |
| 1982 | 1"=500' | Flight Date: July 10, 1982 | USDA |
| 1973 | 1"=500' | Flight Date: October 03, 1973 | USGS |
| 1968 | 1"=500' | Flight Date: April 27, 1968 | USGS |
| 1952 | 1"=500' | Flight Date: June 20, 1952 | USGS |
| 1942 | 1"=500' | Flight Date: June 03, 1942 | USDA |

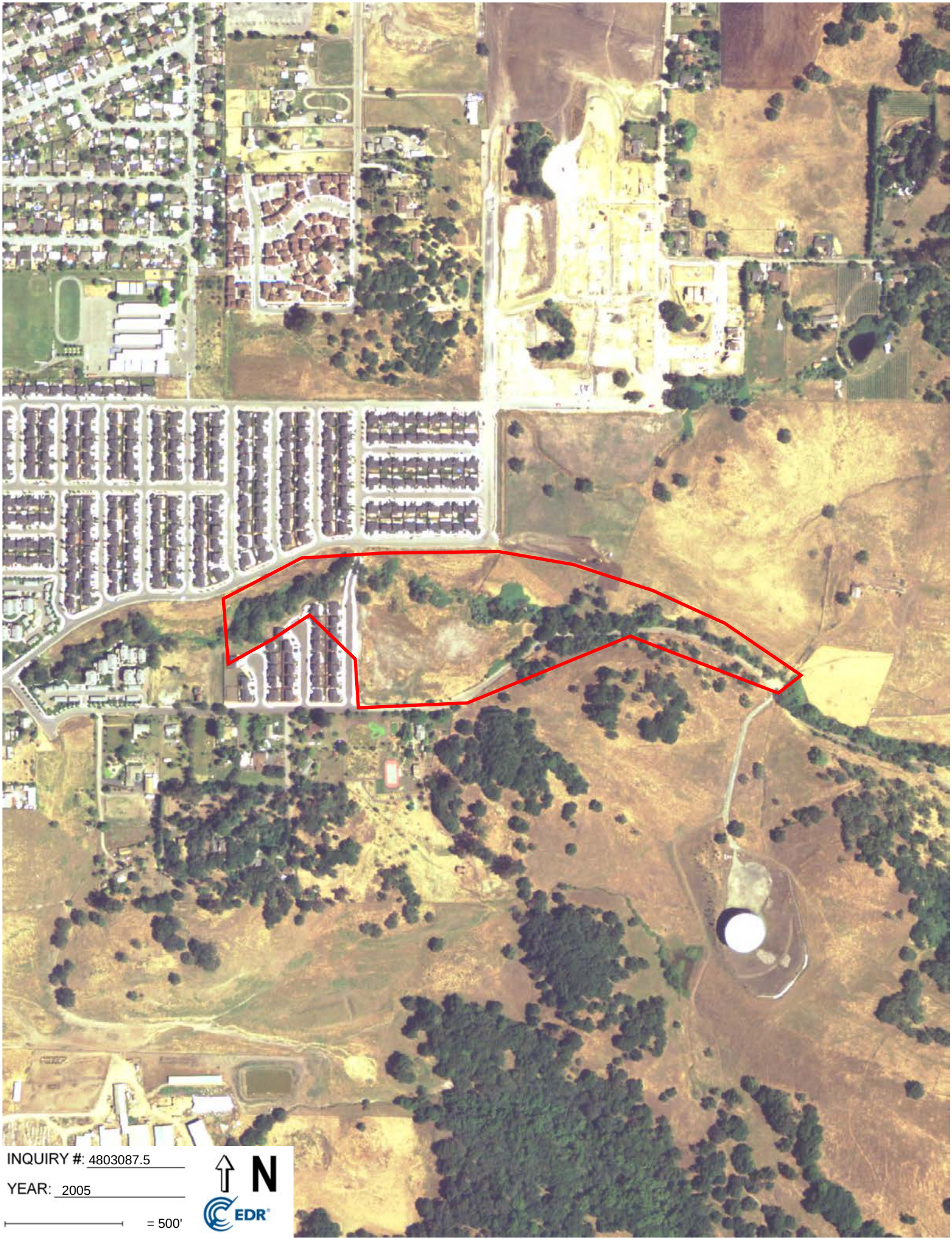
**When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.**


INQUIRY #: 4803087.5
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 4803087.5
YEAR: 2010
= 500'
N
EDR


INQUIRY #: 4803087.5
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 4803087.5
YEAR: 2006
= 500'
N
EDR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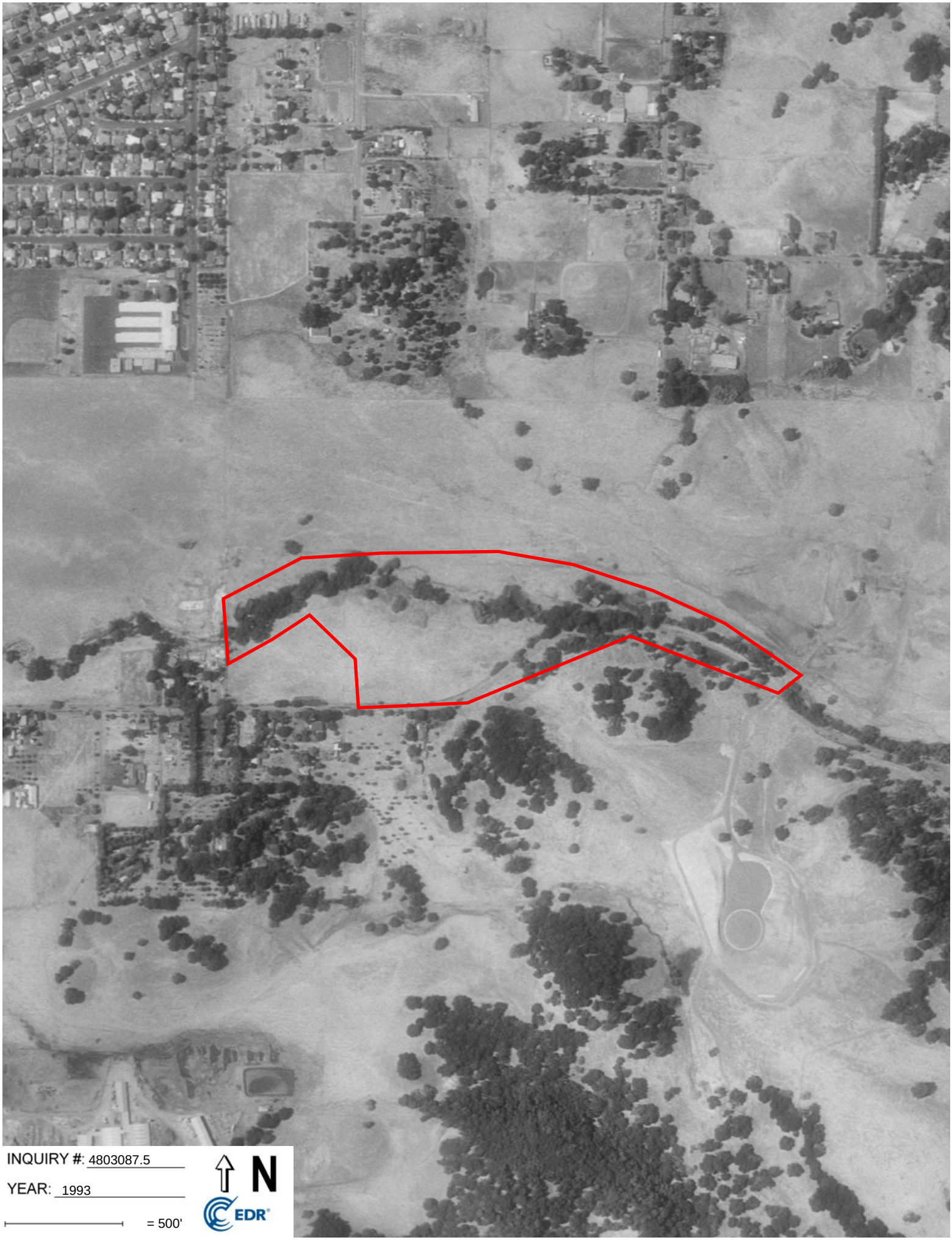
EDR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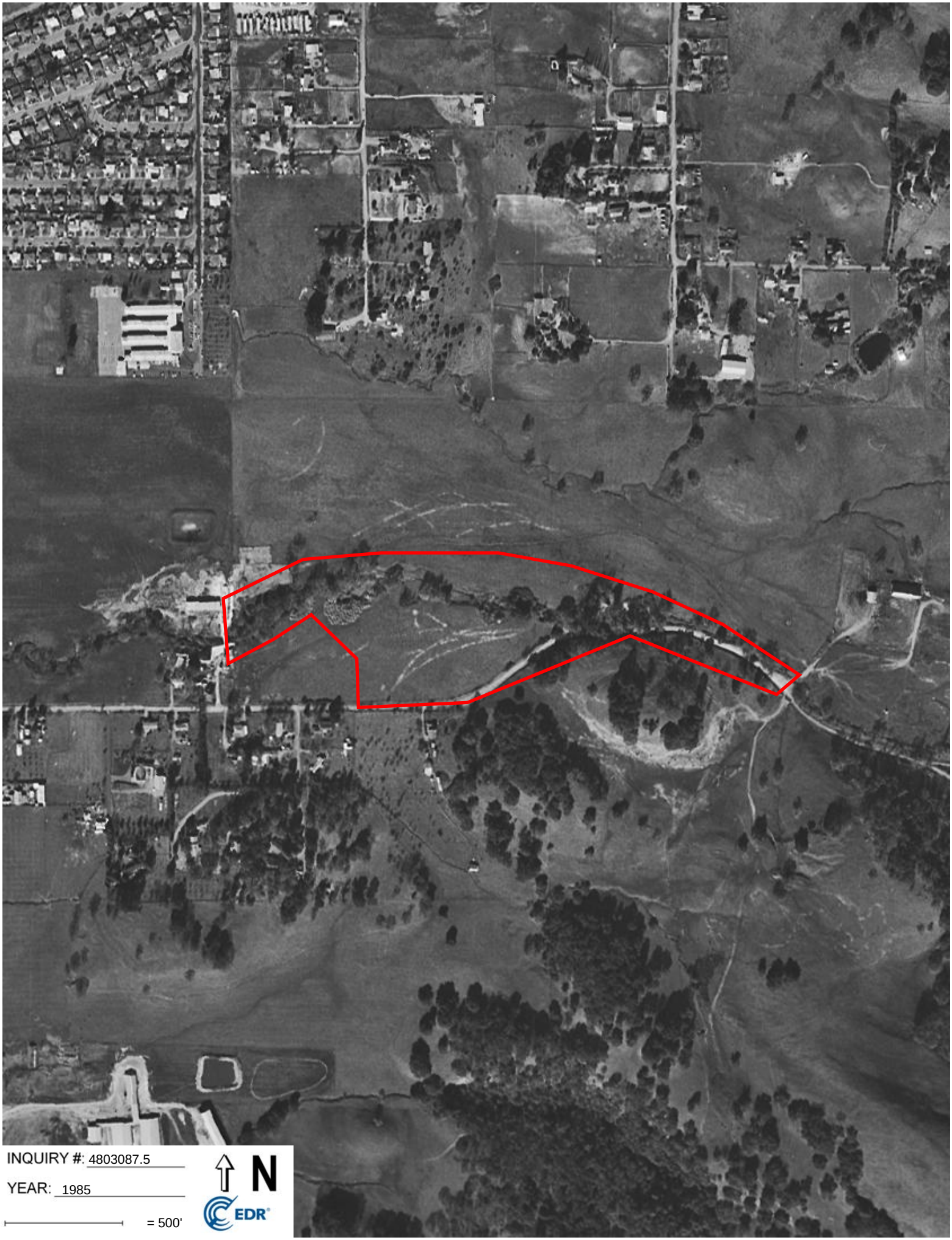
EDR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EDR


INQUIRY #: 4803087.5
YEAR: 1982
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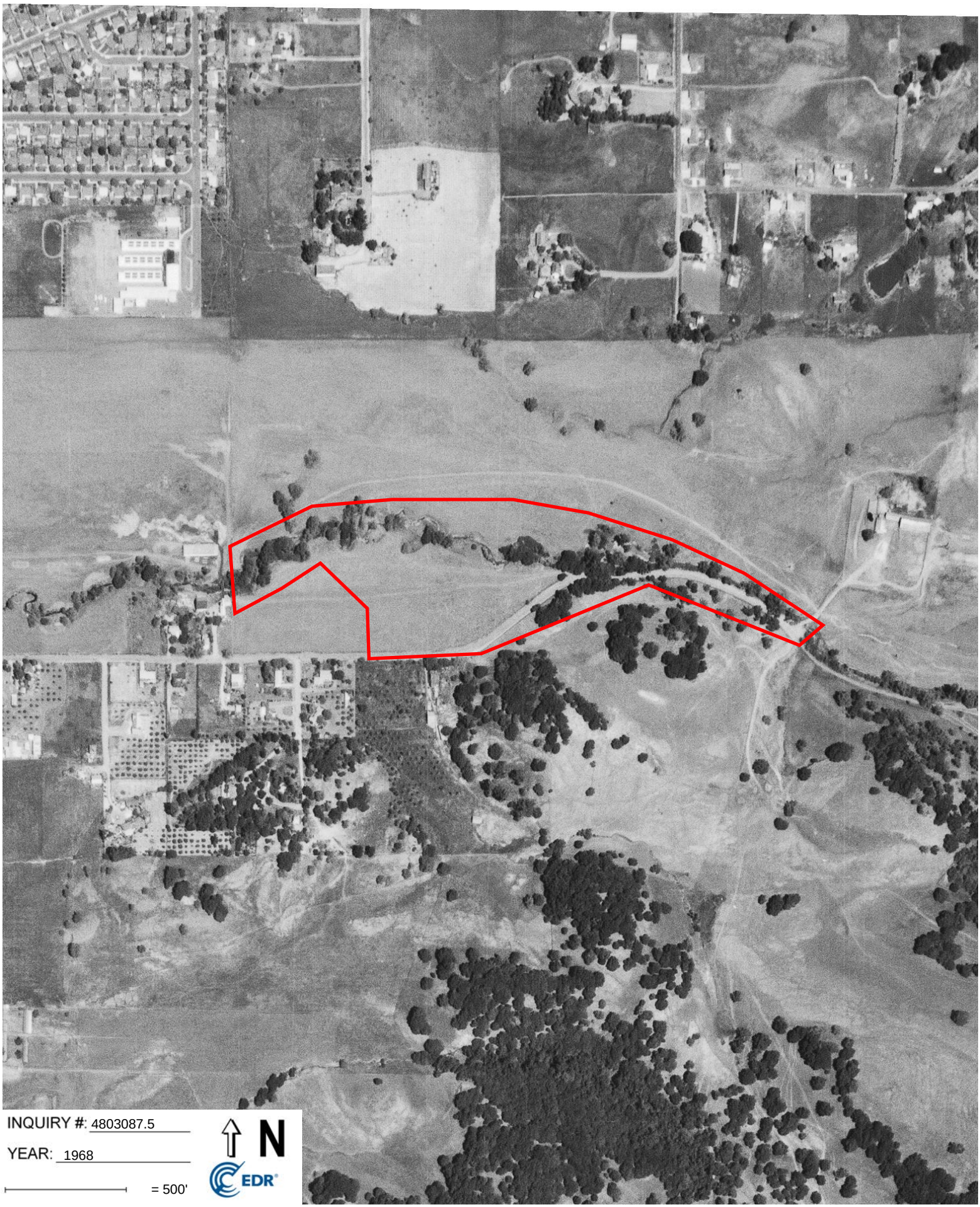
N
EDR


INQUIRY #: 4803087.5
YEAR: 1973
= 500'
N
EDR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EDR


INQUIRY #: 4803087.5
YEAR: 1952
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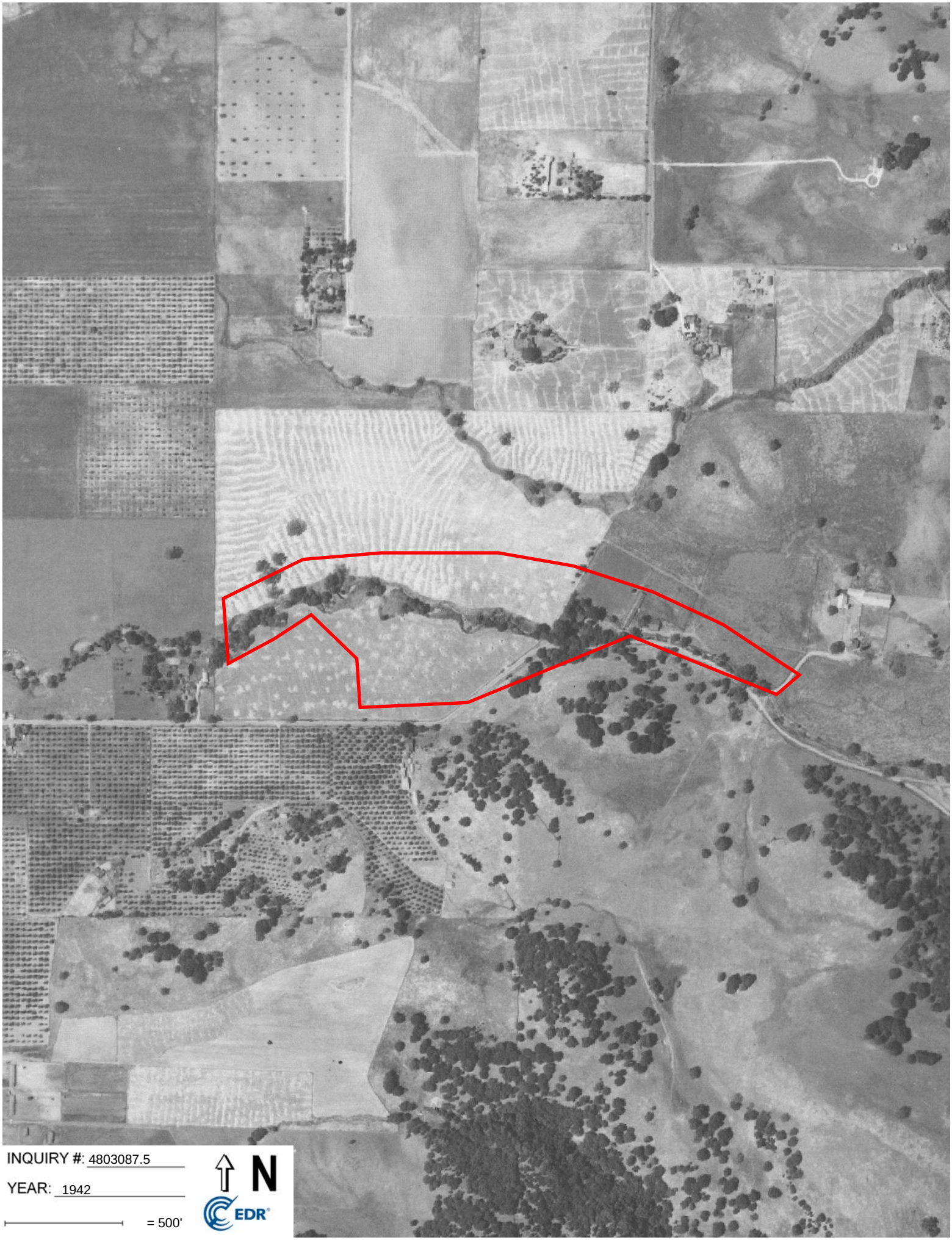
N
EDR


INQUIRY #: 4803087.5
YEAR: 1942
= 500'
N
EDR

**Kawana Springs Community Park**
Kawana Springs Community Park
Santa Rosa, CA 95404

Inquiry Number: 4803087.2s
December 12, 2016

# The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.

# 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**

KAWANA SPRINGS COMMUNITY PARK
SANTA ROSA, CA 95404

**COORDINATES**

| | |
|---|---|
| Latitude (North): | 38.4176240 - 38˚ 25' 3.44'' |
| Longitude (West): | 122.6937550 - 122˚ 41' 37.51'' |
| Universal Tranverse Mercator: | Zone 10 |
| UTM X (Meters): | 526735.0 |
| UTM Y (Meters): | 4251990.5 |
| Elevation: | 204 ft. above sea level |

**USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY**

| | |
|---|---|
| Target Property Map: | 5602166 SANTA ROSA, CA |
| Version Date: | 2012 |

**AERIAL PHOTOGRAPHY IN THIS REPORT**

| | |
|---|---|
| Portions of Photo from: | 20140608 |
| Source: | USDA |

## MAPPED SITES SUMMARY

Target Property Address:
KAWANA SPRINGS COMMUNITY PARK
SANTA ROSA, CA 95404

Click on Map ID to see full detail.

| MAP ID | SITE NAME | ADDRESS | DATABASE ACRONYMS | RELATIVE ELEVATION | DIST (ft. & mi.) DIRECTION |
|---|---|---|---|---|---|
| 1 | | 2375 LAPIS LN | EDR Hist Auto | Lower | 94, 0.018, West |
| 2 | BELLEVUE SCHOOL DIST | 2121 MORAGA DR | RCRA-SQG, ICIS, FINDS, ECHO | Lower | 1128, 0.214, WNW |
| 3 | KAWANA SPRINGS PIPEL | KAWANA SPRINGS | SLIC | Lower | 2045, 0.387, West |
| 4 | CUNNINGHAM DAIRY | 3018 PETALUMA HILL | Cortese, ENF, HIST CORTESE | Lower | 2182, 0.413, SSW |
| A5 | DAVIDSON, WILLIAM | 800 YOLANDA AVENUE | SLIC | Lower | 2280, 0.432, WSW |
| A6 | BURT STREET DEVELOPM | YOLANDA & PETALUMA R | ENVIROSTOR, VCP | Lower | 2440, 0.462, WSW |
| 7 | ACQUISTAPACE, THERES | 459 YOLANDA AVENUE | LUST, HIST CORTESE, NPDES, Notify 65 | Lower | 2901, 0.549, WSW |
| 8 | REDWOOD OIL BULK PLA | 455 YOLANDA AVENUE | LUST, Cortese, EMI, ENF, HIST CORTESE, NPDES,... | Lower | 2974, 0.563, WSW |
| B9 | MANCINI ESTATE/RUNDE | 3373 PETALUMA HILL R | Notify 65 | Lower | 3034, 0.575, SW |
| B10 | | 3375 PETALUMA HILL R | Notify 65 | Lower | 3044, 0.577, SW |
| 11 | LEISER, JACK | 532 ASTON WAY | LUST, SWEEPS UST, HIST UST, CA FID UST, Notify 65 | Lower | 3557, 0.674, WNW |
| C12 | BROMLEY PROPERTY | 1500 SANTA ROSA AVE | LUST, SLIC, HIST CORTESE, Notify 65 | Lower | 4124, 0.781, WNW |
| C13 | TRANSCO TRANSMISSION | 1470 SANTA ROSA | ENVIROSTOR, LUST, HIST CORTESE, Notify 65 | Lower | 4291, 0.813, WNW |
| 14 | FORMER ARCO STATION | 1745 SANAT ROSA AVE | Notify 65 | Lower | 4394, 0.832, WNW |
| D15 | RINO GAS | 1410 SANTA ROSA AVEN | Notify 65 | Lower | 4466, 0.846, WNW |
| D16 | RINO GAS | 1410 SANTA ROSA AVEN | Notify 65 | Lower | 4466, 0.846, WNW |
| 17 | NONE | 2775 SANTA ROSA | LUST, ENF, HAZNET, HIST CORTESE, Notify 65 | Lower | 4772, 0.904, WSW |
| 18 | REDWOOD EMPIRE LIFE | 940 PETALUMA HILL | LUST, EMI, ENF, HIST CORTESE, Notify 65 | Lower | 5261, 0.996, NW |

# EXECUTIVE SUMMARY

## TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

## DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

## STANDARD ENVIRONMENTAL RECORDS

### *Federal NPL site list*

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

### *Federal Delisted NPL site list*

Delisted NPL ..... National Priority List Deletions

### *Federal CERCLIS list*

FEDERAL FACILITY ..... Federal Facility Site Information listing
SEMS ..... Superfund Enterprise Management System

### *Federal CERCLIS NFRAP site list*

SEMS-ARCHIVE ..... Superfund Enterprise Management System Archive

### *Federal RCRA CORRACTS facilities list*

CORRACTS ..... Corrective Action Report

### *Federal RCRA non-CORRACTS TSD facilities list*

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

### *Federal RCRA generators list*

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-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

# EXECUTIVE SUMMARY

***Federal ERNS list***

ERNS..... Emergency Response Notification System

***State- and tribal - equivalent NPL***

RESPONSE..... State Response Sites

***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF..... Solid Waste Information System

***State and tribal leaking storage tank lists***

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

***State and tribal registered storage tank lists***

FEMA UST..... Underground Storage Tank Listing
UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

***State and tribal voluntary cleanup sites***

INDIAN VCP..... Voluntary Cleanup Priority Listing

***State and tribal Brownfields sites***

BROWNFIELDS..... Considered Brownfieds Sites Listing

**ADDITIONAL ENVIRONMENTAL RECORDS**

***Local Brownfield lists***

US BROWNFIELDS..... A Listing of Brownfields Sites

***Local Lists of Landfill / Solid Waste Disposal Sites***

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

***Local Lists of Hazardous waste / Contaminated Sites***

US HIST CDL..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites..... Historical Calsites Database
SCH..... School Property Evaluation Program

| | |
|---|---|
| CDL | Clandestine Drug Labs |
| Toxic Pits | Toxic Pits Cleanup Act Sites |
| US CDL | National Clandestine Laboratory Register |

***Local Lists of Registered Storage Tanks***

| | |
|---|---|
| SWEEPS UST | SWEEPS UST Listing |
| HIST UST | Hazardous Substance Storage Container Database |
| CA FID UST | Facility Inventory Database |

***Local Land Records***

| | |
|---|---|
| LIENS | Environmental Liens Listing |
| LIENS 2 | CERCLA Lien Information |
| DEED | Deed Restriction Listing |

***Records of Emergency Release Reports***

| | |
|---|---|
| HMIRS | Hazardous Materials Information Reporting System |
| CHMIRS | California Hazardous Material Incident Report System |
| LDS | Land Disposal Sites Listing |
| MCS | Military Cleanup Sites Listing |
| SPILLS 90 | SPILLS 90 data from FirstSearch |

***Other Ascertainable Records***

| | |
|---|---|
| RCRA NonGen / NLR | RCRA - Non Generators / No Longer Regulated |
| 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 |

# EXECUTIVE SUMMARY

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
CUPA Listings ..... CUPA Resources List
DRYCLEANERS ..... Cleaner Facilities
EMI ..... Emissions Inventory Data
ENF ..... Enforcement Action Listing
Financial Assurance ..... Financial Assurance Information Listing
HAZNET ..... Facility and Manifest Data
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
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.

# EXECUTIVE SUMMARY

## STANDARD ENVIRONMENTAL RECORDS

### *Federal RCRA generators list*

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 is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***BELLEVUE SCHOOL DIST*** | ***2121 MORAGA DR*** | ***WNW 1/8 - 1/4 (0.214 mi.)*** | ***2*** | ***8*** |

### *State- and tribal - equivalent CERCLIS*

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 08/01/2016 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***BURT STREET DEVELOPM***<br>Facility Id: 49010001<br>Status: No Further Action | ***YOLANDA & PETALUMA R*** | ***WSW 1/4 - 1/2 (0.462 mi.)*** | ***A6*** | ***15*** |
| ***TRANSCO TRANSMISSION***<br>Facility Id: 49340002<br>Status: Refer: RWQCB | ***1470 SANTA ROSA*** | ***WNW 1/2 - 1 (0.813 mi.)*** | ***C13*** | ***63*** |

### *State and tribal leaking storage tank lists*

SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the SLIC list, as provided by EDR, has revealed that there are 2 SLIC sites within

approximately 0.5 miles of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| KAWANA SPRINGS PIPEL<br>Database: SLIC, Date of Government Version: 09/12/2016<br>Database: SLIC REG 1, Date of Government Version: 04/03/2003<br>Facility Status: Completed - Case Closed<br>Facility Id: 1NSR377<br>Global Id: T0609791104 | KAWANA SPRINGS | W 1/4 - 1/2 (0.387 mi.) | 3 | 10 |
| DAVIDSON, WILLIAM<br>Database: SLIC, Date of Government Version: 09/12/2016<br>Facility Status: Completed - Case Closed<br>Global Id: SL0609752583 | 800 YOLANDA AVENUE | WSW 1/4 - 1/2 (0.432 mi.) | A5 | 15 |

***State and tribal voluntary cleanup sites***

VCP: 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.

A review of the VCP list, as provided by EDR, and dated 08/01/2016 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***BURT STREET DEVELOPM***<br>Status: No Further Action<br>Facility Id: 49010001 | ***YOLANDA & PETALUMA R*** | ***WSW 1/4 - 1/2 (0.462 mi.)*** | ***A6*** | ***15*** |

**ADDITIONAL ENVIRONMENTAL RECORDS**

***Other Ascertainable Records***

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 09/26/2016 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***CUNNINGHAM DAIRY*** | ***3018 PETALUMA HILL*** | ***SSW 1/4 - 1/2 (0.413 mi.)*** | ***4*** | ***11*** |

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there

is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***CUNNINGHAM DAIRY*** Reg Id: 1B89015CNSO | ***3018 PETALUMA HILL*** | ***SSW 1/4 - 1/2 (0.413 mi.)*** | ***4*** | ***11*** |

Notify 65: 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.

A review of the Notify 65 list, as provided by EDR, and dated 09/10/2015 has revealed that there are 12 Notify 65 sites within approximately 1 mile of the target property.

| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| ***ACQUISTAPACE, THERES*** | ***459 YOLANDA AVENUE*** | ***WSW 1/2 - 1 (0.549 mi.)*** | ***7*** | ***17*** |
| ***REDWOOD OIL BULK PLA*** | ***455 YOLANDA AVENUE*** | ***WSW 1/2 - 1 (0.563 mi.)*** | ***8*** | ***19*** |
| MANCINI ESTATE/RUNDE | 3373 PETALUMA HILL R | SW 1/2 - 1 (0.575 mi.) | B9 | 45 |
| Not reported | 3375 PETALUMA HILL R | SW 1/2 - 1 (0.577 mi.) | B10 | 45 |
| ***LEISER, JACK*** | ***532 ASTON WAY*** | ***WNW 1/2 - 1 (0.674 mi.)*** | ***11*** | ***45*** |
| ***BROMLEY PROPERTY*** | ***1500 SANTA ROSA AVE*** | ***WNW 1/2 - 1 (0.781 mi.)*** | ***C12*** | ***57*** |
| ***TRANSCO TRANSMISSION*** | ***1470 SANTA ROSA*** | ***WNW 1/2 - 1 (0.813 mi.)*** | ***C13*** | ***63*** |
| FORMER ARCO STATION | 1745 SANAT ROSA AVE | WNW 1/2 - 1 (0.832 mi.) | 14 | 70 |
| RINO GAS | 1410 SANTA ROSA AVEN | WNW 1/2 - 1 (0.846 mi.) | D15 | 70 |
| RINO GAS | 1410 SANTA ROSA AVEN | WNW 1/2 - 1 (0.846 mi.) | D16 | 70 |
| ***NONE*** | ***2775 SANTA ROSA*** | ***WSW 1/2 - 1 (0.904 mi.)*** | ***17*** | ***70*** |
| ***REDWOOD EMPIRE LIFE*** | ***940 PETALUMA HILL*** | ***NW 1/2 - 1 (0.996 mi.)*** | ***18*** | ***77*** |

**EDR HIGH RISK HISTORICAL RECORDS**

***EDR Exclusive Records***

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

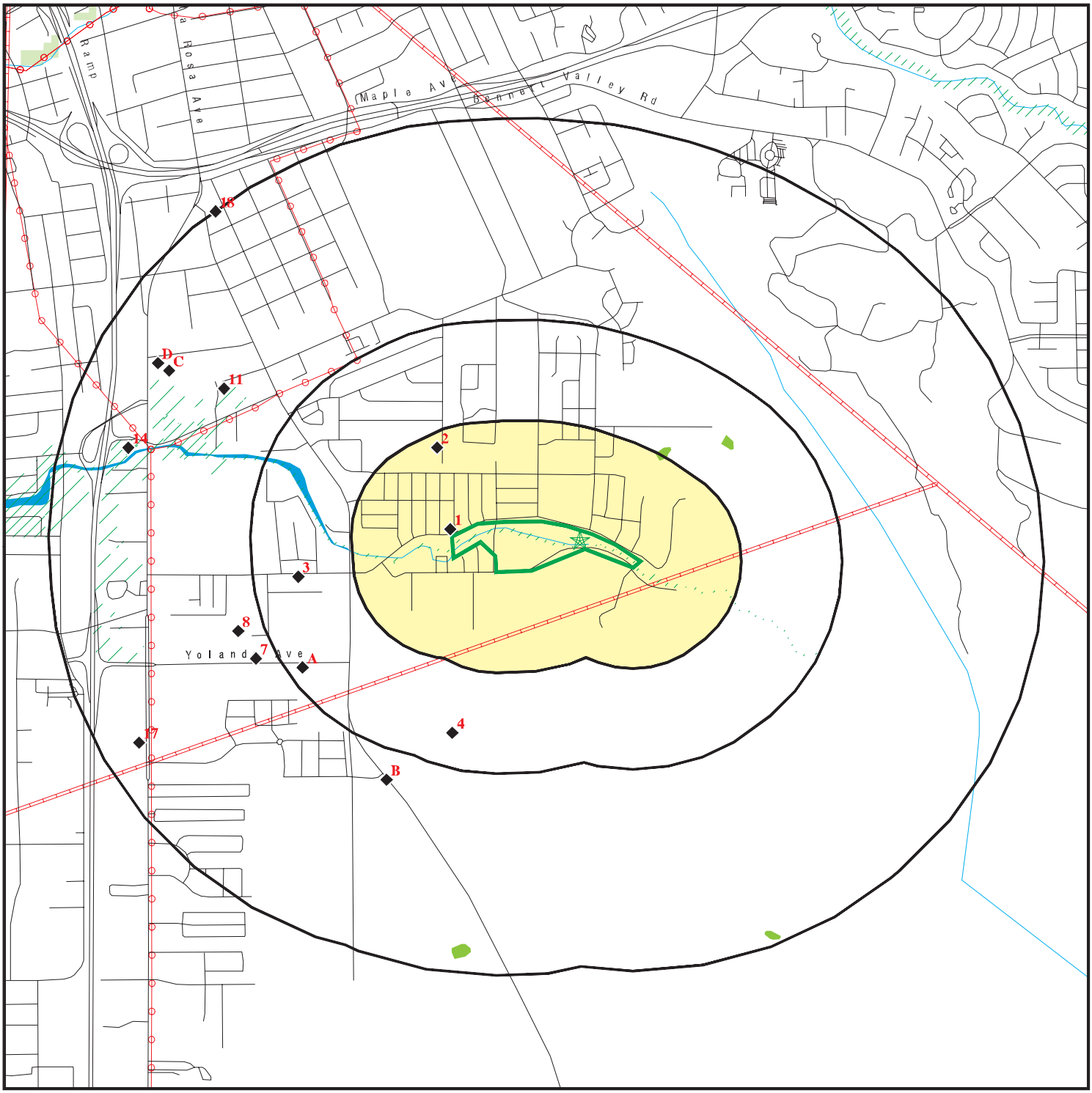
| Lower Elevation | Address | Direction / Distance | Map ID | Page |
|---|---|---|---|---|
| Not reported | 2375 LAPIS LN | W 0 - 1/8 (0.018 mi.) | 1 | 8 |

# EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.

| Site Name | Database(s) |
|---|---|
| KAWANA SPRINGS PIPELINE | RGA LUST |
| KAWANA SPRINGS PIPELINE | RGA LUST |
| KAWANA SPRINGS PIPELINE | RGA LUST |
| KAWANA SPRINGS 6 | NPDES |

# OVERVIEW MAP - 4803087.2S




Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

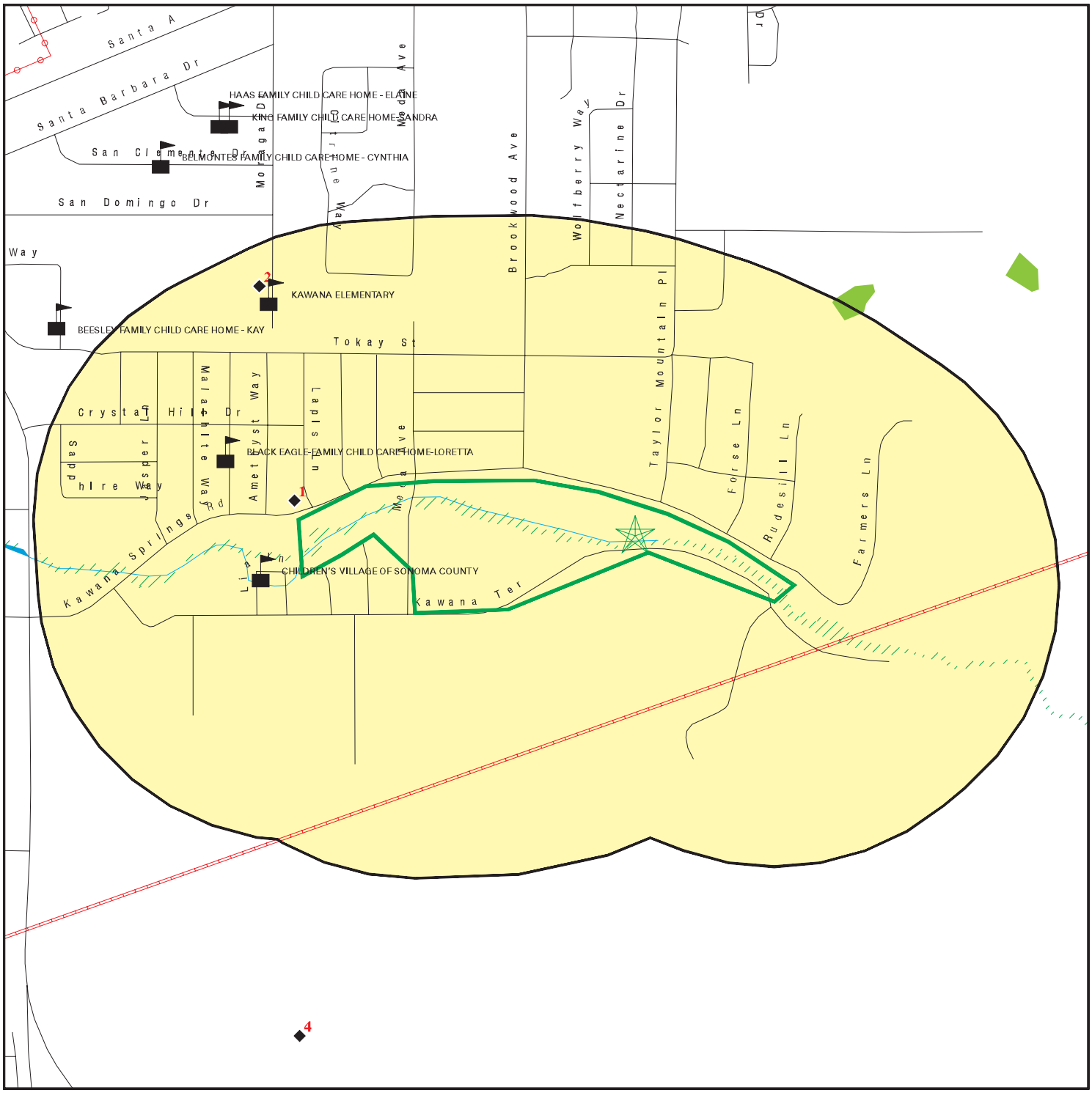
State Wetlands

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: Kawana Springs Community Park | CLIENT: David Powers & Associates |
| ADDRESS: Kawana Springs Community Park<br>Santa Rosa CA 95404 | CONTACT: Tali Ashurov<br>INQUIRY #: 4803087.2s |
| LAT/LONG: 38.417624 / 122.693755 | DATE: December 12, 2016 4:15 pm |

# DETAIL MAP - 4803087.2S




Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA

Power transmission lines

Pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

| | |
|---|---|
| SITE NAME: Kawana Springs Community Park | CLIENT: David Powers & Associates |
| ADDRESS: Kawana Springs Community Park<br>Santa Rosa CA 95404 | CONTACT: Tali Ashurov<br>INQUIRY #: 4803087.2s |
| LAT/LONG: 38.417624 / 122.693755 | DATE: December 12, 2016 4:43 pm |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| **STANDARD ENVIRONMENTAL RECORDS** | | | | | | | | |
| ***Federal NPL site list*** | | | | | | | | |
| NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| Proposed NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| NPL LIENS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ***Federal Delisted NPL site list*** | | | | | | | | |
| Delisted NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***Federal CERCLIS list*** | | | | | | | | |
| FEDERAL FACILITY | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SEMS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal CERCLIS NFRAP site list*** | | | | | | | | |
| SEMS-ARCHIVE | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal RCRA CORRACTS facilities list*** | | | | | | | | |
| CORRACTS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| ***Federal RCRA non-CORRACTS TSD facilities list*** | | | | | | | | |
| RCRA-TSDF | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Federal RCRA generators list*** | | | | | | | | |
| RCRA-LQG | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| RCRA-SQG | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| 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 | 1 | 1 | NR | 2 |
| ***State and tribal landfill and/or solid waste disposal site lists*** | | | | | | | | |
| SWF/LF | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***State and tribal leaking storage tank lists*** | | | | | | | | |
| LUST | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |

# MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|---|---|---|---|---|---|---|---|
| INDIAN LUST | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SLIC | 0.500 | | 0 | 0 | 2 | NR | NR | 2 |
| ***State and tribal registered storage tank lists*** | | | | | | | | |
| FEMA UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| AST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| INDIAN UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ***State and tribal voluntary cleanup sites*** | | | | | | | | |
| INDIAN VCP | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| VCP | 0.500 | | 0 | 0 | 1 | NR | NR | 1 |
| ***State and tribal Brownfields sites*** | | | | | | | | |
| BROWNFIELDS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| **ADDITIONAL ENVIRONMENTAL RECORDS** | | | | | | | | |
| ***Local Brownfield lists*** | | | | | | | | |
| US BROWNFIELDS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Local Lists of Landfill / Solid Waste Disposal Sites*** | | | | | | | | |
| WMUDS/SWAT | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SWRCY | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| HAULERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| INDIAN ODI | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| DEBRIS REGION 9 | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ODI | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| IHS OPEN DUMPS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ***Local Lists of Hazardous waste / Contaminated Sites*** | | | | | | | | |
| US HIST CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST Cal-Sites | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| SCH | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| Toxic Pits | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| US CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ***Local Lists of Registered Storage Tanks*** | | | | | | | | |
| SWEEPS UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| HIST UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CA FID UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ***Local Land Records*** | | | | | | | | |
| LIENS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| LIENS 2 | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| 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 | 0 | NR | NR | NR | 0 |
| 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 | 1 | NR | NR | 1 |
| CUPA Listings | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| DRYCLEANERS | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| 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 | | 0 | 0 | 1 | NR | NR | 1 |
| 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 | 12 | NR | 12 |
| 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 | | 1 | NR | NR | NR | NR | 1 |
| EDR Hist Cleaner | 0.125 | | 0 | NR | NR | NR | NR | 0 |
| **EDR RECOVERED GOVERNMENT ARCHIVES** | | | | | | | | |
| ***Exclusive Recovered Govt. Archives*** | | | | | | | | |
| RGA LF | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RGA LUST | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| - Totals -- | | 0 | 1 | 1 | 6 | 13 | 0 | 21 |

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

**1**
**West**
**< 1/8**
**0.018 mi.**
**94 ft.**

**2375 LAPIS LN**
**SANTA ROSA, CA 95404**

**EDR Hist Auto** **1015351584**
**N/A**

**Relative:**
**Lower**

**Actual:**
**187 ft.**

EDR Historical Auto Stations:

| | |
|---|---|
| Name: | A TO Z AUTOMOTIVE |
| Year: | 2005 |
| Address: | 2375 LAPIS LN |

---

**2**
**WNW**
**1/8-1/4**
**0.214 mi.**
**1128 ft.**

**BELLEVUE SCHOOL DISTRICT**
**2121 MORAGA DR**
**SANTA ROSA, CA 95404**

**RCRA-SQG** **1000282264**
**ICIS** **CAD982007924**
**FINDS**
**ECHO**

**Relative:**
**Lower**

**Actual:**
**176 ft.**

RCRA-SQG:

| | |
|---|---|
| Date form received by agency: | 09/01/1996 |
| Facility name: | BELLEVUE SCHOOL DISTRICT |
| Facility address: | 2121 MORAGA DR<br>SANTA ROSA, CA 95404 |
| EPA ID: | CAD982007924 |
| Mailing address: | 3223 PRIMROSE AVE<br>SANTA ROSA, CA 95407 |
| Contact: | Not reported |
| Contact address: | Not reported<br>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: | NOT REQUIRED |
| Owner/operator address: | NOT REQUIRED<br>NOT REQUIRED, ME 99999 |
| Owner/operator country: | Not reported |
| Owner/operator telephone: | (415) 555-1212 |
| Legal status: | District |
| Owner/Operator Type: | Operator |
| Owner/Op start date: | Not reported |
| Owner/Op end date: | Not reported |

| | |
|---|---|
| Owner/operator name: | BELLEVUE SCHOOL DIST |
| Owner/operator address: | NOT REQUIRED<br>NOT REQUIRED, ME 99999 |
| Owner/operator country: | Not reported |
| Owner/operator telephone: | (415) 555-1212 |
| Legal status: | District |
| Owner/Operator Type: | Owner |
| Owner/Op start date: | Not reported |
| Owner/Op end date: | Not reported |

**BELLEVUE SCHOOL DISTRICT (Continued)** **1000282264**

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: | 06/15/1987 |
| Site name: | BELLEVUE SCHOOL DISTRICT |
| Classification: | Large Quantity Generator |
| Violation Status: | No violations found |

ICIS:

| | |
|---|---|
| Enforcement Action ID: | 09-1992-0034 |
| FRS ID: | 110002774622 |
| Action Name: | GENERAL INDUSTRIAL ENSULATION, INC. |
| Facility Name: | BELLEVUE SCHOOL DISTRICT |
| Facility Address: | 2121 MORAGA DR<br>SANTA ROSA, CA 95404 |
| Enforcement Action Type: | TSCA 16 Action For Penalty |
| Facility County: | SONOMA |
| Program System Acronym: | ICIS |
| Enforcement Action Forum Desc: | Administrative - Formal |
| EA Type Code: | 16 |
| Facility SIC Code: | Not reported |
| Federal Facility ID: | Not reported |
| Latitude in Decimal Degrees: | 38.421042 |
| Longitude in Decimal Degrees: | -122.700044 |
| Permit Type Desc: | Not reported |
| Program System Acronym: | 11609 |
| Facility NAICS Code: | Not reported |
| Tribal Land Code: | Not reported |

| | |
|---|---|
| Facility Name: | BELLEVUE SCHOOL DISTRICT |
| Address: | 2121 MORAGA DR |
| Tribal Indicator: | N |
| Fed Facility: | No |
| NAIC Code: | Not reported |
| SIC Code: | Not reported |

| | |
|---|---|
| Facility Name: | BELLEVUE SCHOOL DISTRICT |
| Address: | 2121 MORAGA DR |
| Tribal Indicator: | N |
| Fed Facility: | No |

**BELLEVUE SCHOOL DISTRICT (Continued)** **1000282264**

NAIC Code: Not reported
SIC Code: Not reported

FINDS:

Registry ID: 110002774622

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.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

ECHO:
Envid: 1000282264
Registry ID: 110002774622
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002774622

---

**3 West 1/4-1/2 0.387 mi. 2045 ft.** | **KAWANA SPRINGS PIPELINE**
**KAWANA SPRINGS**
**SANTA ROSA, CA 95404** | **SLIC** | **S105051100**
**N/A**

**Relative: Lower**

**Actual: 159 ft.**

SLIC:
Region: STATE
**Facility Status:** **Completed - Case Closed**
Status Date: 12/01/2004
Global Id: T0609791104
Lead Agency: NORTH COAST RWQCB (REGION 1)
Lead Agency Case Number: Not reported
Latitude: 38.416363
Longitude: -122.70662
Case Type: Cleanup Program Site
Case Worker: ZZZ
Local Agency: SANTA ROSA, CITY OF
RB Case Number: 1NSR377
File Location: Regional Board
Potential Media Affected: Under Investigation

**KAWANA SPRINGS PIPELINE (Continued)** **S105051100**

Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 1:
Region: 1
Facility ID: 1NSR377
Staff Initials: JEF

---

**4 SSW 1/4-1/2 0.413 mi. 2182 ft.**

**CUNNINGHAM DAIRY**
**3018 PETALUMA HILL**
**SANTA ROSA, CA 95406**

**Cortese ENF HIST CORTESE** **S105026514 N/A**

**Relative: Lower**

**Actual: 171 ft.**

CORTESE:

| | |
|---|---|
| Region: | CORTESE |
| Envirostor Id: | Not reported |
| Site/Facility Type: | Not reported |
| Cleanup Status: | Not reported |
| Status Date: | Not reported |
| Site Code: | Not reported |
| Latitude: | Not reported |
| Longitude: | Not reported |
| Owner: | Not reported |
| Enf Type: | Not reported |
| Swat R: | Not reported |
| Flag: | CORTESE |
| Order No: | Not reported |
| Waste Discharge System No: | Not reported |
| Effective Date: | 04/10/1989 |
| Region 2: | 1 |
| WID Id: | 1B89015DSON |
| Solid Waste Id No: | Not reported |
| Waste Management Uit Name: | Not reported |

ENF:

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 216361 |
| Agency Name: | Cunningham Dairy |
| Place Type: | Growing |
| Place Subtype: | Animal Feeding |
| Facility Type: | Agricultural |
| Agency Type: | Privately-Owned Business |
| # Of Agencies: | 1 |
| Place Latitude: | 38.411660 |
| Place Longitude: | -122.703760 |
| SIC Code 1: | 241 |
| SIC Desc 1: | Dairy Farms |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | 11212 |
| NAICS Desc 1: | Dairy Cattle and Milk Production |
| NAICS Code 2: | Not reported |

**CUNNINGHAM DAIRY (Continued)** **S105026514**

| | |
|---|---|
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Reg Meas |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | ANIWSTCOWS |
| Program Category1: | ANIMALWASTE |
| Program Category2: | ANIMALWASTE |
| # Of Programs: | 1 |
| WDID: | 1B89015DSON |
| Reg Measure Id: | 156247 |
| Reg Measure Type: | Unregulated |
| Region: | 1 |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Historical |
| Status Date: | 06/20/2014 |
| Effective Date: | 04/10/1989 |
| Expiration/Review Date: | Not reported |
| Termination Date: | 06/14/2012 |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | N |
| Individual/General: | I |
| Fee Code: | Not reported |
| Direction/Voice: | Passive |
| Enforcement Id(EID): | 221762 |
| Region: | 1 |
| Order / Resolution Number: | 89-056 |
| Enforcement Action Type: | Clean-up and Abatement Order |
| Effective Date: | 04/10/1989 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | Not reported |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Active |
| Title: | Enforcement - 1B89015CNSO (1B89015DSON) Cunningham Dairy |
| Description: | WASTES FROM ANIMAL CONFINEMENT FAC, 22 MANURE & IURINE |

**CUNNINGHAM DAIRY (Continued)** **S105026514**

| | |
|---|---|
| | DISCHARGING ON PROPERTY . |
| Program: | ANIWSTCOWS |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |
| | |
| Region: | 1 |
| Facility Id: | 216361 |
| Agency Name: | Cunningham Dairy |
| Place Type: | Growing |
| Place Subtype: | Animal Feeding |
| Facility Type: | Agricultural |
| Agency Type: | Privately-Owned Business |
| # Of Agencies: | 1 |
| Place Latitude: | 38.411660 |
| Place Longitude: | -122.703760 |
| SIC Code 1: | 241 |
| SIC Desc 1: | Dairy Farms |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | 11212 |
| NAICS Desc 1: | Dairy Cattle and Milk Production |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Reg Meas |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | ANIWSTCOWS |
| Program Category1: | ANIMALWASTE |
| Program Category2: | ANIMALWASTE |
| # Of Programs: | 1 |
| WDID: | 1B89015DSON |
| Reg Measure Id: | 384484 |
| Reg Measure Type: | Enrollee |
| Region: | 1 |
| Order #: | R1-2012-0003 |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |

**CUNNINGHAM DAIRY (Continued)** **S105026514**

| | |
|---|---|
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Active |
| Status Date: | 06/18/2012 |
| Effective Date: | 06/14/2012 |
| Expiration/Review Date: | 06/14/2027 |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Y |
| Individual/General: | I |
| Fee Code: | 10 - Confined animal feeding facility |
| Direction/Voice: | Passive |
| Enforcement Id(EID): | 406121 |
| Region: | 1 |
| Order / Resolution Number: | Not reported |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 03/01/2016 |
| Adoption/Issuance Date: | 03/01/2016 |
| Achieve Date: | Not reported |
| Termination Date: | Not reported |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Active |
| Title: | SEL 03/01/2016 for Cunningham Dairy |
| Description: | Not reported |
| Program: | ANIWSTCOWS |
| Latest Milestone Completion Date: | 4/1/2016 |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

HIST CORTESE:

| | |
|---|---|
| Region: | CORTESE |
| Facility County Code: | 49 |
| Reg By: | WBC&D |
| Reg Id: | 1B89015CNSO |

**A5 WSW 1/4-1/2 0.432 mi. 2280 ft.** | **DAVIDSON, WILLIAM** | **SLIC** | **S106487415** | **N/A**

**800 YOLANDA AVENUE**
**SANTA ROSA, CA 95404**

**Site 1 of 2 in cluster A**

**Relative: Lower**

**Actual: 155 ft.**

SLIC:

| | |
|---|---|
| Region: | STATE |
| **Facility Status:** | **Completed - Case Closed** |
| Status Date: | 11/04/2005 |
| Global Id: | SL0609752583 |
| Lead Agency: | NORTH COAST RWQCB (REGION 1) |
| Lead Agency Case Number: | Not reported |
| Latitude: | 38.412732 |
| Longitude: | -122.705712 |
| Case Type: | Cleanup Program Site |
| Case Worker: | ZZZ |
| Local Agency: | Not reported |
| RB Case Number: | 1NSR400 |
| File Location: | Regional Board |
| Potential Media Affected: | Other Groundwater (uses other than drinking water), Under Investigation |
| Potential Contaminants of Concern: | * Solvents |
| Site History: | Not reported |

Click here to access the California GeoTracker records for this facility:

---

**A6 WSW 1/4-1/2 0.462 mi. 2440 ft.** | **BURT STREET DEVELOPMENT** | **ENVIROSTOR VCP** | **S102860966** | **N/A**

**YOLANDA & PETALUMA ROADS**
**SANTA ROSA, CA 95404**

**Site 2 of 2 in cluster A**

**Relative: Lower**

**Actual: 153 ft.**

ENVIROSTOR:

| | |
|---|---|
| Facility ID: | 49010001 |
| Status: | No Further Action |
| Status Date: | 09/10/1997 |
| Site Code: | 200821 |
| Site Type: | Voluntary Cleanup |
| Site Type Detailed: | Voluntary Cleanup |
| Acres: | 34 |
| NPL: | NO |
| Regulatory Agencies: | SMBRP |
| Lead Agency: | SMBRP |
| Program Manager: | Not reported |
| Supervisor: | Mark Piros |
| Division Branch: | Cleanup Berkeley |
| Assembly: | 04 |
| Senate: | 02 |
| Special Program: | Voluntary Cleanup Program |
| Restricted Use: | NO |
| Site Mgmt Req: | NONE SPECIFIED |
| Funding: | Responsible Party |
| Latitude: | 38.40833 |
| Longitude: | -122.7083 |
| APN: | NONE SPECIFIED |
| Past Use: | NONE |
| Potential COC: | NONE SPECIFIED No Contaminants found |
| Confirmed COC: | No Contaminants found |
| Potential Description: | NMA |

**BURT STREET DEVELOPMENT (Continued)** **S102860966**

Alias Name: 110033617236
Alias Type: EPA (FRS #)
Alias Name: 200821
Alias Type: Project Code (Site Code)
Alias Name: 49010001
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 05/27/1997
Comments: Signed VCA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Voluntary Cleanup Agreement Completion
Completed Date: 09/10/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/10/1997
Comments: Completed VCA. Completed PEA which recommended no further action for DTSC.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

VCP:

Facility ID: 49010001
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 34
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Site Code: 200821
Assembly: 04
Senate: 02
Special Programs Code: Voluntary Cleanup Program
Status: No Further Action
Status Date: 09/10/1997
Restricted Use: NO

**BURT STREET DEVELOPMENT (Continued)** **S102860966**

| | |
|---|---|
| Funding: | Responsible Party |
| Lat/Long: | 38.40833 / -122.7083 |
| APN: | NONE SPECIFIED |
| Past Use: | NONE |
| Potential COC: | NONE SPECIFIED,31000 |
| Confirmed COC: | 31000 |
| Potential Description: | NMA |
| Alias Name: | 110033617236 |
| Alias Type: | EPA (FRS #) |
| Alias Name: | 200821 |
| Alias Type: | Project Code (Site Code) |
| Alias Name: | 49010001 |
| Alias Type: | Envirostor ID Number |

Completed Info:

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Voluntary Cleanup Agreement |
| Completed Date: | 05/27/1997 |
| Comments: | Signed VCA. |
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | *Voluntary Cleanup Agreement Completion |
| Completed Date: | 09/10/1997 |
| Comments: | Not reported |
| Completed Area Name: | PROJECT WIDE |
| Completed Sub Area Name: | Not reported |
| Completed Document Type: | Preliminary Endangerment Assessment Report |
| Completed Date: | 09/10/1997 |
| Comments: | Completed VCA. Completed PEA which recommended no further action for DTSC. |
| Future Area Name: | Not reported |
| Future Sub Area Name: | Not reported |
| Future Document Type: | Not reported |
| Future Due Date: | Not reported |
| Schedule Area Name: | Not reported |
| Schedule Sub Area Name: | Not reported |
| Schedule Document Type: | Not reported |
| Schedule Due Date: | Not reported |
| Schedule Revised Date: | Not reported |

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**7**
**WSW**
**1/2-1**
**0.549 mi.**
**2901 ft.**

**ACQUISTAPACE, THERESA**
**459 YOLANDA AVENUE**
**SANTA ROSA, CA 95404**

**LUST** **S100236345**
**HIST CORTESE** **N/A**
**NPDES**
**Notify 65**

**Relative:**
**Lower**

**Actual:**
**149 ft.**

LUST REG 1:

| | |
|---|---|
| Region: | 1 |
| Facility ID: | 1TSR052 |
| Staff Initials: | JEF |

HIST CORTESE:

| | |
|---|---|
| Region: | CORTESE |
| Facility County Code: | 49 |

**ACQUISTAPACE, THERESA (Continued)** **S100236345**

| | |
|---|---|
| Reg By: | LTNKA |
| Reg Id: | 1TSR052 |

NPDES:

| | |
|---|---|
| Npdes Number: | CAS000001 |
| Facility Status: | Active |
| Agency Id: | 0 |
| Region: | 1 |
| Regulatory Measure Id: | 462602 |
| Order No: | 97-03-DWQ |
| Regulatory Measure Type: | Enrollee |
| Place Id: | Not reported |
| WDID: | 1 49I026190 |
| Program Type: | Industrial |
| Adoption Date Of Regulatory Measure: | Not reported |
| Effective Date Of Regulatory Measure: | 10/08/2015 |
| Expiration Date Of Regulatory Measure: | Not reported |
| Termination Date Of Regulatory Measure: | Not reported |
| Discharge Name: | Flyers Energy |
| Discharge Address: | 2360 Lindbergh Street |
| Discharge City: | Auburn |
| Discharge State: | California |
| Discharge Zip: | 95602 |
| RECEIVED DATE: | Not reported |
| PROCESSED DATE: | Not reported |
| STATUS CODE NAME: | Not reported |
| STATUS DATE: | Not reported |
| PLACE SIZE: | Not reported |
| PLACE SIZE UNIT: | Not reported |
| FACILITY CONTACT NAME: | Not reported |
| FACILITY CONTACT TITLE: | Not reported |
| FACILITY CONTACT PHONE: | Not reported |
| FACILITY CONTACT PHONE EXT: | Not reported |
| FACILITY CONTACT EMAIL: | Not reported |
| OPERATOR NAME: | Not reported |
| OPERATOR ADDRESS: | Not reported |
| OPERATOR CITY: | Not reported |
| OPERATOR STATE: | Not reported |
| OPERATOR ZIP: | Not reported |
| OPERATOR CONTACT NAME: | Not reported |
| OPERATOR CONTACT TITLE: | Not reported |
| OPERATOR CONTACT PHONE: | Not reported |
| OPERATOR CONTACT PHONE EXT: | Not reported |
| OPERATOR CONTACT EMAIL: | Not reported |
| OPERATOR TYPE: | Not reported |
| DEVELOPER NAME: | Not reported |
| DEVELOPER ADDRESS: | Not reported |
| DEVELOPER CITY: | Not reported |
| DEVELOPER STATE: | Not reported |
| DEVELOPER ZIP: | Not reported |
| DEVELOPER CONTACT NAME: | Not reported |
| DEVELOPER CONTACT TITLE: | Not reported |
| CONSTYPE LINEAR UTILITY IND: | Not reported |
| EMERGENCY PHONE NO: | Not reported |
| EMERGENCY PHONE EXT: | Not reported |
| CONSTYPE ABOVE GROUND IND: | Not reported |
| CONSTYPE BELOW GROUND IND: | Not reported |

**ACQUISTAPACE, THERESA (Continued)** **S100236345**

| | |
|---|---|
| CONSTYPE CABLE LINE IND: | Not reported |
| CONSTYPE COMM LINE IND: | Not reported |
| CONSTYPE COMMERTIAL IND: | Not reported |
| CONSTYPE ELECTRICAL LINE IND: | Not reported |
| CONSTYPE GAS LINE IND: | Not reported |
| CONSTYPE INDUSTRIAL IND: | Not reported |
| CONSTYPE OTHER DESRIPTION: | Not reported |
| CONSTYPE OTHER IND: | Not reported |
| CONSTYPE RECONS IND: | Not reported |
| CONSTYPE RESIDENTIAL IND: | Not reported |
| CONSTYPE TRANSPORT IND: | Not reported |
| CONSTYPE UTILITY DESCRIPTION: | Not reported |
| CONSTYPE UTILITY IND: | Not reported |
| CONSTYPE WATER SEWER IND: | Not reported |
| DIR DISCHARGE USWATER IND: | Not reported |
| RECEIVING WATER NAME: | Not reported |
| CERTIFIER NAME: | Not reported |
| CERTIFIER TITLE: | Not reported |
| CERTIFICATION DATE: | Not reported |
| PRIMARY SIC: | Not reported |
| SECONDARY SIC: | Not reported |
| TERTIARY SIC: | Not reported |

NOTIFY 65:

| | |
|---|---|
| Date Reported: | Not reported |
| Staff Initials: | Not reported |
| Board File Number: | Not reported |
| Facility Type: | Not reported |
| Discharge Date: | Not reported |
| Issue Date: | Not reported |
| Incident Description: | Not reported |

---

**8**
**WSW**
**1/2-1**
**0.563 mi.**
**2974 ft.**

**Relative:**
**Lower**

**Actual:**
**151 ft.**

**REDWOOD OIL BULK PLANT**
**455 YOLANDA AVENUE**
**SANTA ROSA, CA 95404**

**LUST** **S100236344**
**Cortese** **N/A**
**EMI**
**ENF**
**HIST CORTESE**
**NPDES**
**Notify 65**

LUST:

| | |
|---|---|
| Region: | STATE |
| Global Id: | T0609700708 |
| Latitude: | 38.4135846681225 |
| Longitude: | -122.710268497467 |
| Case Type: | LUST Cleanup Site |
| Status: | Open - Remediation |
| Status Date: | 06/11/2009 |
| Lead Agency: | NORTH COAST RWQCB (REGION 1) |
| Case Worker: | JBL |
| Local Agency: | SANTA ROSA, CITY OF |
| RB Case Number: | 1TSR261 |
| LOC Case Number: | Not reported |
| File Location: | Regional Board |
| Potential Media Affect: | Well used for drinking water supply |
| Potential Contaminants of Concern: | Gasoline |
| Site History: | Not reported |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

Click here to access the California GeoTracker records for this facility:

Contact:

| | |
|---|---|
| Global Id: | T0609700708 |
| Contact Type: | Regional Board Caseworker |
| Contact Name: | JO BENTZ |
| Organization Name: | NORTH COAST RWQCB (REGION 1) |
| Address: | 5550 SKYLANE BOULEVARD, SUITE A |
| City: | SANTA ROSA |
| Email: | jbentz@waterboards.ca.gov |
| Phone Number: | 7075762220 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Contact Type: | Local Agency Caseworker |
| Contact Name: | LOCAL PERMIT WORKER SANTA ROSA |
| Organization Name: | SANTA ROSA, CITY OF |
| Address: | 625 5th Street |
| City: | SANTA ROSA |
| Email: | Not reported |
| Phone Number: | 7075433500 |

Status History:

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Case Begin Date |
| Status Date: | 03/31/1988 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Remediation |
| Status Date: | 08/28/1998 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Remediation |
| Status Date: | 11/12/2003 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Remediation |
| Status Date: | 03/09/2004 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Remediation |
| Status Date: | 10/06/2004 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Remediation |
| Status Date: | 04/22/2005 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Remediation |
| Status Date: | 06/11/2009 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Site Assessment |
| Status Date: | 03/31/1988 |

| | |
|---|---|
| Global Id: | T0609700708 |
| Status: | Open - Site Assessment |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

Status Date: 02/15/1989

Global Id: T0609700708
Status: Open - Site Assessment
Status Date: 03/27/1989

Global Id: T0609700708
Status: Open - Site Assessment
Status Date: 01/16/1996

Regulatory Activities:

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 01/27/2005
Action: Staff Letter

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 04/12/2005
Action: Staff Letter

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 11/30/2009
Action: Amendment to Order

Global Id: T0609700708
Action Type: REMEDIATION
Date: 06/01/2001
Action: Pump & Treat (P&T) Groundwater

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 07/08/2016
Action: Email Correspondence

Global Id: T0609700708
Action Type: RESPONSE
Date: 04/22/2005
Action: Remedial Progress Report

Global Id: T0609700708
Action Type: RESPONSE
Date: 03/17/2005
Action: Monitoring Report - Quarterly

Global Id: T0609700708
Action Type: RESPONSE
Date: 04/21/2005
Action: Other Report / Document

Global Id: T0609700708
Action Type: RESPONSE
Date: 07/07/2005
Action: Monitoring Report - Quarterly

Global Id: T0609700708

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

Action Type: RESPONSE
Date: 10/06/2004
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0609700708
Action Type: REMEDIATION
Date: 07/01/2001
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0609700708
Action Type: REMEDIATION
Date: 09/18/2001
Action: Soil Vapor Extraction (SVE)

Global Id: T0609700708
Action Type: RESPONSE
Date: 02/08/2010
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0609700708
Action Type: Other
Date: 03/31/1988
Action: Leak Discovery

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 10/17/2001
Action: Administrative Civil Liabilities Complaint

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 01/01/2000
Action: Clean-up and Abatement Order

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 05/05/2000
Action: * Historical Enforcement

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 07/15/2005
Action: * No Action

Global Id: T0609700708
Action Type: REMEDIATION
Date: 12/01/1999
Action: Excavation

Global Id: T0609700708
Action Type: RESPONSE
Date: 10/28/2008
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0609700708
Action Type: Other
Date: 03/31/1988

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

Action: Leak Reported

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 02/28/2012
Action: Staff Letter

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 11/10/2014
Action: Technical Correspondence / Assistance / Other

Global Id: T0609700708
Action Type: Other
Date: 03/31/1988
Action: Leak Stopped

Global Id: T0609700708
Action Type: RESPONSE
Date: 02/18/2015
Action: Correspondence

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 05/11/2005
Action: Staff Letter

Global Id: T0609700708
Action Type: RESPONSE
Date: 03/25/2008
Action: Interim Remedial Action Plan

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 03/21/2008
Action: Staff Letter

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 08/26/2003
Action: Staff Letter

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 07/31/2009
Action: Staff Letter

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 05/27/2008
Action: Staff Letter

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 05/27/2008
Action: Staff Letter

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 04/25/2013
Action: Verbal Enforcement

Global Id: T0609700708
Action Type: RESPONSE
Date: 11/10/2008
Action: Well Installation Report

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 08/05/2008
Action: Staff Letter

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 05/21/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 10/12/2011
Action: Clean-up and Abatement Order

Global Id: T0609700708
Action Type: ENFORCEMENT
Date: 06/29/2001
Action: Administrative Civil Liabilities Complaint

Global Id: T0609700708
Action Type: RESPONSE
Date: 12/08/2008
Action: Pilot Study/ Treatability Report

Global Id: T0609700708
Action Type: RESPONSE
Date: 11/10/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0609700708
Action Type: RESPONSE
Date: 03/14/2005
Action: Other Report / Document

Global Id: T0609700708
Action Type: RESPONSE
Date: 11/10/2003
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0609700708
Action Type: RESPONSE
Date: 05/19/2005
Action: Other Workplan

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

CORTESE:

| | |
|---|---|
| Region: | CORTESE |
| Envirostor Id: | Not reported |
| Site/Facility Type: | Not reported |
| Cleanup Status: | Not reported |
| Status Date: | Not reported |
| Site Code: | Not reported |
| Latitude: | Not reported |
| Longitude: | Not reported |
| Owner: | Not reported |
| Enf Type: | Not reported |
| Swat R: | Not reported |
| Flag: | CORTESE |
| Order No: | Not reported |
| Waste Discharge System No: | Not reported |
| Effective Date: | Not reported |
| Region 2: | Not reported |
| WID Id: | Not reported |
| Solid Waste Id No: | Not reported |
| Waste Management Uit Name: | Not reported |

EMI:

| | |
|---|---|
| Year: | 1987 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 7 |
| Reactive Organic Gases Tons/Yr: | 7 |
| 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: | 1990 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 6 |
| Reactive Organic Gases Tons/Yr: | 5 |
| 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 OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Year: | 1995 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 16 |
| Reactive Organic Gases Tons/Yr: | 14 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 4 |
| Reactive Organic Gases Tons/Yr: | 4 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 5 |
| Reactive Organic Gases Tons/Yr: | 4 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| 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: | 18 |
| Reactive Organic Gases Tons/Yr: | 16 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 18 |
| Reactive Organic Gases Tons/Yr: | 18 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 18 |
| Reactive Organic Gases Tons/Yr: | 18 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2 |
| Carbon Monoxide Emissions Tons/Yr: | 0 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 13043 |
| Air District Name: | BA |
| SIC Code: | 4953 |
| 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: | 2002 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2 |
| Carbon Monoxide Emissions Tons/Yr: | 0 |
| NOX - Oxides of Nitrogen Tons/Yr: | 0 |
| SOX - Oxides of Sulphur Tons/Yr: | 0 |
| Particulate Matter Tons/Yr: | 0 |
| Part. Matter 10 Micrometers and Smllr Tons/Yr: | 0 |

| | |
|---|---|
| Year: | 2002 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 13043 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2003 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2 |
| Carbon Monoxide Emissions Tons/Yr: | 0 |
| NOX - Oxides of Nitrogen Tons/Yr: | 0 |
| SOX - Oxides of Sulphur Tons/Yr: | 0 |
| Particulate Matter Tons/Yr: | 0 |
| Part. Matter 10 Micrometers and Smllr Tons/Yr: | 0 |

| | |
|---|---|
| Year: | 2003 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 13043 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2004 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 13043 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 1.089 |
| Reactive Organic Gases Tons/Yr: | 0.7607754 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| Air District Name: | BAY AREA AQMD |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Community Health Air Pollution Info System: | Not reported |
| Consolidated Emission Reporting Rule: | Not reported |
| Total Organic Hydrocarbon Gases Tons/Yr: | 2.201 |
| Reactive Organic Gases Tons/Yr: | 2.1928563 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2.179 |
| Reactive Organic Gases Tons/Yr: | 2.1709377 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2.12 |
| Reactive Organic Gases Tons/Yr: | 2.112156 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2.211 |
| Reactive Organic Gases Tons/Yr: | 2.2028193 |
| Carbon Monoxide Emissions Tons/Yr: | 0 |
| NOX - Oxides of Nitrogen Tons/Yr: | 0 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 2.125 |
| Reactive Organic Gases Tons/Yr: | 2.1171375 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 1.9179999999999999 |
| Reactive Organic Gases Tons/Yr: | 1.9109034 |
| 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: | 2010 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 1.6200000000000001 |
| Reactive Organic Gases Tons/Yr: | 1.6140060000000001 |
| 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: | 49 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 1.62 |
| Reactive Organic Gases Tons/Yr: | 1.614006 |
| 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: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 0.838 |
| Reactive Organic Gases Tons/Yr: | 0.8348994 |
| Carbon Monoxide Emissions Tons/Yr: | 0 |
| NOX - Oxides of Nitrogen Tons/Yr: | 0 |
| SOX - Oxides of Sulphur Tons/Yr: | 0 |
| Particulate Matter Tons/Yr: | 0 |
| Part. Matter 10 Micrometers and Smllr Tons/Yr: | 0 |

| | |
|---|---|
| Year: | 2013 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 869 |
| Air District Name: | BA |
| SIC Code: | 5171 |
| 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: | 0.722 |
| Reactive Organic Gases Tons/Yr: | 0.722 |
| 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 |

ENF:

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252248 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Gasoline Service Station |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| # Of Agencies: | Not reported |
| Place Latitude: | Not reported |
| Place Longitude: | Not reported |
| SIC Code 1: | 5541 |
| SIC Desc 1: | Gasoline Service Stations |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 236749 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Region: | 1 |
| Order / Resolution Number: | R1-2001-0053 |
| Enforcement Action Type: | Admin Civil Liability |
| Effective Date: | 06/18/2001 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 05/19/2003 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1S0261NUG Redwood Oil Bulk Plant 141 |
| Description: | ORIGINAL LIABILITY TO STAND. $25000 DUE AND PAYABLE AND 25,000 SUSPENDED CONTINGENT ON SEP. |
| Program: | UST |
| Latest Milestone Completion Date: | 5/19/2003 |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 50000 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 25000 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 25000 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 50000 |

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252248 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Gasoline Service Station |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | Not reported |
| Place Longitude: | Not reported |
| SIC Code 1: | 5541 |
| SIC Desc 1: | Gasoline Service Stations |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 236727 |
| Region: | 1 |
| Order / Resolution Number: | R1-2001-0039 |
| Enforcement Action Type: | Admin Civil Liability |
| Effective Date: | 05/04/2001 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 06/18/2001 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR261NUG Redwood Oil Bulk Plant 141 |
| Description: | DISCHARGER SYSTEM FAILURE ALLOWING CONTINUAL LEACHING OF PETROLEUM HYDROCARBONS FROM SOIL TO GROUNDWATER. IMPACTED WATER SUPPLY WELLS. REPORTS HAVE NOT BEEN SENT AND DISCHARGER FAILED TO PURSUE OBTAINING PERMITS FOR CLEANUP PROJECT. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 50000 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252248 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Gasoline Service Station |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | Not reported |
| Place Longitude: | Not reported |
| SIC Code 1: | 5541 |
| SIC Desc 1: | Gasoline Service Stations |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 236726 |
| Region: | 1 |
| Order / Resolution Number: | R1-2000-0034 |
| Enforcement Action Type: | Clean-up and Abatement Order |
| Effective Date: | 04/04/2000 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 10/27/2005 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR261NUG Redwood Oil Bulk Plant 141 |
| Description: | DISCHARGER WAS TO WORK ON GETTING SOIL AND GROUNDWATER TREATMENT AND PLUME MIGRATION CONTROLS IN PLACE |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252248 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Gasoline Service Station |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | Not reported |
| Place Longitude: | Not reported |
| SIC Code 1: | 5541 |
| SIC Desc 1: | Gasoline Service Stations |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 221386 |
| Region: | 1 |
| Order / Resolution Number: | 90-184 |
| Enforcement Action Type: | Clean-up and Abatement Order |
| Effective Date: | 11/07/1990 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 10/27/2005 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR261NUG Redwood Oil Bulk Plant 141 |
| Description: | SUBMIT REPORT DETAILING WORK PERFORMED. SITE HAS SERIOUS SOIL CONTAMINATION PROBLEMS. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |
| | |
| Region: | 1 |
| Facility Id: | 252248 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Gasoline Service Station |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | Not reported |
| Place Longitude: | Not reported |
| SIC Code 1: | 5541 |
| SIC Desc 1: | Gasoline Service Stations |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 381897 |
| Region: | 1 |
| Order / Resolution Number: | R1-2005-0106 |
| Enforcement Action Type: | Clean-up and Abatement Order |
| Effective Date: | 10/27/2005 |
| Adoption/Issuance Date: | 10/27/2005 |
| Achieve Date: | Not reported |
| Termination Date: | Not reported |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Active |
| Title: | Enforcement - 1B1SR261NUG Redwood Oil Bulk Plant 141 |
| Description: | Not reported |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252248 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Gasoline Service Station |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | Not reported |
| Place Longitude: | Not reported |
| SIC Code 1: | 5541 |
| SIC Desc 1: | Gasoline Service Stations |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 219781 |
| Region: | 1 |
| Order / Resolution Number: | LT940125 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 01/25/1994 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 01/25/1994 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR261NUG Redwood Oil Bulk Plant 141 |
| Description: | REQUESTING FIVE DAYS ADVANCE NOTICE OF DRILLING. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

HIST CORTESE:

| | |
|---|---|
| Region: | CORTESE |
| Facility County Code: | 49 |
| Reg By: | WBC&D |
| Reg Id: | 1B1SO164NUG |

| | |
|---|---|
| Region: | CORTESE |
| Facility County Code: | 49 |
| Reg By: | LTNKA |
| Reg Id: | 1TSR261 |

NPDES:

| | |
|---|---|
| Npdes Number: | Not reported |
| Facility Status: | Not reported |
| Agency Id: | Not reported |
| Region: | 1 |
| Regulatory Measure Id: | 272509 |
| Order No: | Not reported |
| Regulatory Measure Type: | Industrial |
| Place Id: | Not reported |
| WDID: | 1 49I020005 |
| Program Type: | Not reported |
| Adoption Date Of Regulatory Measure: | Not reported |
| Effective Date Of Regulatory Measure: | Not reported |
| Expiration Date Of Regulatory Measure: | Not reported |
| Termination Date Of Regulatory Measure: | Not reported |
| Discharge Name: | Not reported |
| Discharge Address: | Not reported |
| Discharge City: | Not reported |
| Discharge State: | Not reported |
| Discharge Zip: | Not reported |
| RECEIVED DATE: | 5/9/2008 |
| PROCESSED DATE: | 12/29/2005 |
| STATUS CODE NAME: | Active |
| STATUS DATE: | 12/29/2005 |
| PLACE SIZE: | 2 |
| PLACE SIZE UNIT: | 52 |
| FACILITY CONTACT NAME: | Greg Taylor |
| FACILITY CONTACT TITLE: | Not reported |
| FACILITY CONTACT PHONE: | 707-546-0766 |
| FACILITY CONTACT PHONE EXT: | Not reported |
| FACILITY CONTACT EMAIL: | Not reported |
| OPERATOR NAME: | Redwood Coast Petroleum |
| OPERATOR ADDRESS: | 455 Yolanda Ave |
| OPERATOR CITY: | Santa Rosa |
| OPERATOR STATE: | California |
| OPERATOR ZIP: | 95404 |
| OPERATOR CONTACT NAME: | Greg Taylor |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| OPERATOR CONTACT TITLE: | Not reported |
| OPERATOR CONTACT PHONE: | 707-546-0766 |
| OPERATOR CONTACT PHONE EXT: | Not reported |
| OPERATOR CONTACT EMAIL: | gtaylor@rcpetrol.com |
| OPERATOR TYPE: | Private Business |
| DEVELOPER NAME: | Not reported |
| DEVELOPER ADDRESS: | Not reported |
| DEVELOPER CITY: | Not reported |
| DEVELOPER STATE: | California |
| DEVELOPER ZIP: | Not reported |
| DEVELOPER CONTACT NAME: | Not reported |
| DEVELOPER CONTACT TITLE: | Not reported |
| CONSTYPE LINEAR UTILITY IND: | Not reported |
| EMERGENCY PHONE NO: | 707-546-0766 |
| EMERGENCY PHONE EXT: | Not reported |
| CONSTYPE ABOVE GROUND IND: | Not reported |
| CONSTYPE BELOW GROUND IND: | Not reported |
| CONSTYPE CABLE LINE IND: | Not reported |
| CONSTYPE COMM LINE IND: | Not reported |
| CONSTYPE COMMERTIAL IND: | Not reported |
| CONSTYPE ELECTRICAL LINE IND: | Not reported |
| CONSTYPE GAS LINE IND: | Not reported |
| CONSTYPE INDUSTRIAL IND: | Not reported |
| CONSTYPE OTHER DESRIPTION: | Not reported |
| CONSTYPE OTHER IND: | Not reported |
| CONSTYPE RECONS IND: | Not reported |
| CONSTYPE RESIDENTIAL IND: | Not reported |
| CONSTYPE TRANSPORT IND: | Not reported |
| CONSTYPE UTILITY DESCRIPTION: | Not reported |
| CONSTYPE UTILITY IND: | Not reported |
| CONSTYPE WATER SEWER IND: | Not reported |
| DIR DISCHARGE USWATER IND: | Not reported |
| RECEIVING WATER NAME: | Laguna De Santa Rosa |
| CERTIFIER NAME: | Greg Taylor |
| CERTIFIER TITLE: | President |
| CERTIFICATION DATE: | 26-AUG-10 |
| PRIMARY SIC: | 5171-Petroleum Bulk Stations and Terminals |
| SECONDARY SIC: | Not reported |
| TERTIARY SIC: | Not reported |
| | |
| Npdes Number: | CAS000001 |
| Facility Status: | Terminated |
| Agency Id: | 0 |
| Region: | 1 |
| Regulatory Measure Id: | 272509 |
| Order No: | 97-03-DWQ |
| Regulatory Measure Type: | Enrollee |
| Place Id: | Not reported |
| WDID: | 1 49I020005 |
| Program Type: | Industrial |
| Adoption Date Of Regulatory Measure: | Not reported |
| Effective Date Of Regulatory Measure: | 12/29/2005 |
| Expiration Date Of Regulatory Measure: | Not reported |
| Termination Date Of Regulatory Measure: | 07/13/2015 |
| Discharge Name: | Redwood Coast Petroleum |
| Discharge Address: | 455 Yolanda Ave |
| Discharge City: | Santa Rosa |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

| | |
|---|---|
| Discharge State: | California |
| Discharge Zip: | 95404 |
| RECEIVED DATE: | Not reported |
| PROCESSED DATE: | Not reported |
| STATUS CODE NAME: | Not reported |
| STATUS DATE: | Not reported |
| PLACE SIZE: | Not reported |
| PLACE SIZE UNIT: | Not reported |
| FACILITY CONTACT NAME: | Not reported |
| FACILITY CONTACT TITLE: | Not reported |
| FACILITY CONTACT PHONE: | Not reported |
| FACILITY CONTACT PHONE EXT: | Not reported |
| FACILITY CONTACT EMAIL: | Not reported |
| OPERATOR NAME: | Not reported |
| OPERATOR ADDRESS: | Not reported |
| OPERATOR CITY: | Not reported |
| OPERATOR STATE: | Not reported |
| OPERATOR ZIP: | Not reported |
| OPERATOR CONTACT NAME: | Not reported |
| OPERATOR CONTACT TITLE: | Not reported |
| OPERATOR CONTACT PHONE: | Not reported |
| OPERATOR CONTACT PHONE EXT: | Not reported |
| OPERATOR CONTACT EMAIL: | Not reported |
| OPERATOR TYPE: | Not reported |
| DEVELOPER NAME: | Not reported |
| DEVELOPER ADDRESS: | Not reported |
| DEVELOPER CITY: | Not reported |
| DEVELOPER STATE: | Not reported |
| DEVELOPER ZIP: | Not reported |
| DEVELOPER CONTACT NAME: | Not reported |
| DEVELOPER CONTACT TITLE: | Not reported |
| CONSTYPE LINEAR UTILITY IND: | Not reported |
| EMERGENCY PHONE NO: | Not reported |
| EMERGENCY PHONE EXT: | Not reported |
| CONSTYPE ABOVE GROUND IND: | Not reported |
| CONSTYPE BELOW GROUND IND: | Not reported |
| CONSTYPE CABLE LINE IND: | Not reported |
| CONSTYPE COMM LINE IND: | Not reported |
| CONSTYPE COMMERTIAL IND: | Not reported |
| CONSTYPE ELECTRICAL LINE IND: | Not reported |
| CONSTYPE GAS LINE IND: | Not reported |
| CONSTYPE INDUSTRIAL IND: | Not reported |
| CONSTYPE OTHER DESRIPTION: | Not reported |
| CONSTYPE OTHER IND: | Not reported |
| CONSTYPE RECONS IND: | Not reported |
| CONSTYPE RESIDENTIAL IND: | Not reported |
| CONSTYPE TRANSPORT IND: | Not reported |
| CONSTYPE UTILITY DESCRIPTION: | Not reported |
| CONSTYPE UTILITY IND: | Not reported |
| CONSTYPE WATER SEWER IND: | Not reported |
| DIR DISCHARGE USWATER IND: | Not reported |
| RECEIVING WATER NAME: | Not reported |
| CERTIFIER NAME: | Not reported |
| CERTIFIER TITLE: | Not reported |
| CERTIFICATION DATE: | Not reported |
| PRIMARY SIC: | Not reported |
| SECONDARY SIC: | Not reported |

**REDWOOD OIL BULK PLANT (Continued)** **S100236344**

TERTIARY SIC: Not reported

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

---

**B9**
**SW**
**1/2-1**
**0.575 mi.**
**3034 ft.**

**MANCINI ESTATE/RUNDELL/HATTON**
**3373 PETALUMA HILL ROAD**
**SANTA ROSA, CA 93582**

**Site 1 of 2 in cluster B**

**Relative:**
**Lower**

**Actual:**
**144 ft.**

**Notify 65** **S100179521**
**N/A**

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

---

**B10**
**SW**
**1/2-1**
**0.577 mi.**
**3044 ft.**

**3375 PETALUMA HILL ROAD**
**SANTA ROSA, CA 93582**

**Site 2 of 2 in cluster B**

**Relative:**
**Lower**

**Actual:**
**143 ft.**

**Notify 65** **S100179436**
**N/A**

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

---

**11**
**WNW**
**1/2-1**
**0.674 mi.**
**3557 ft.**

**LEISER, JACK**
**532 ASTON WAY**
**SANTA ROSA, CA 95404**

**LUST**
**SWEEPS UST**
**HIST UST**
**CA FID UST**
**Notify 65**

**S101627289**
**N/A**

**Relative:**
**Lower**

**Actual:**
**153 ft.**

LUST:
Region: STATE
Global Id: T0609791118
Latitude: 38.4232515404296
Longitude: -122.709968090057
Case Type: LUST Cleanup Site
Status: Completed - Case Closed

**LEISER, JACK (Continued)** **S101627289**

| | |
|---|---|
| Status Date: | 06/10/2014 |
| Lead Agency: | NORTH COAST RWQCB (REGION 1) |
| Case Worker: | ZZZ |
| Local Agency: | SANTA ROSA, CITY OF |
| RB Case Number: | 1TSR383 |
| LOC Case Number: | Not reported |
| File Location: | Regional Board |
| Potential Media Affect: | Aquifer used for drinking water supply, Under Investigation |
| Potential Contaminants of Concern: | Diesel, Gasoline |
| Site History: | The underground storage tank site is a welding and metal fabrication shop. There formerly were two underground gasoline tanks at the site. Each tank occupied a separate excavation. One tank was installed in 1973 by a previous owner. The second tank was installed in 1980 by the responsible party. Both underground fuel tanks were removed from the site in February 2001. Soil samples collected from the tank excavations did not reveal the presence of any detectable contaminants of concern. A groundwater sample collected from one of the tank pits (west), however, was found to contain a detectable amount of gasoline contamination.An AUnderground Storage Tank Unauthorized Release Report@ was filed by the Santa Rosa Fire Department on March 25, 2001. In correspondence dated July 19, 2001 the North Coast Region, Regional Water Quality Control Board formally requested submittal of a wordplay for site investigation. Between January and May of 2004 a total of eight groundwater monitoring wells were installed and sampled. The extent of soil and groundwater contamination was determined to be fully characterized. A dual phase extraction system was installed at the site in December 2004 to remediate contaminated soil and groundwater below the site. The remedial system was in operation since early 2005. In December 2006 operation of the remedial system was discontinued pending an evaluation of system effectiveness. During the first quarter of 2008 site remediation based on groundwater extraction was implemented. B-zone monitoring wells were installed in August 2012 to assess the extent and stability of the B-zone aquifer. Assessment of the extent of contamination in the deeper water-bering zone was completed in 2013. |

Click here to access the California GeoTracker records for this facility:

Contact:

| | |
|---|---|
| Global Id: | T0609791118 |
| Contact Type: | Regional Board Caseworker |
| Contact Name: | REGIONAL WATER BOARD SITE CLOSED |
| Organization Name: | NORTH COAST RWQCB (REGION 1) |
| Address: | 5550 SKYLANE BOULEVARD, SUITE A |
| City: | SANTA ROSA |
| Email: | craig.hunt@waterboards.ca.gov |
| Phone Number: | 7075762220 |

| | |
|---|---|
| Global Id: | T0609791118 |
| Contact Type: | Local Agency Caseworker |
| Contact Name: | LOCAL PERMIT WORKER SANTA ROSA |
| Organization Name: | SANTA ROSA, CITY OF |
| Address: | 625 5th Street |
| City: | SANTA ROSA |
| Email: | Not reported |
| Phone Number: | 7075433500 |

**LEISER, JACK (Continued)** **S101627289**

Status History:

| | |
|---|---|
| Global Id: | T0609791118 |
| Status: | Completed - Case Closed |
| Status Date: | 06/10/2014 |
| Global Id: | T0609791118 |
| Status: | Open - Assessment & Interim Remedial Action |
| Status Date: | 07/01/2008 |
| Global Id: | T0609791118 |
| Status: | Open - Case Begin Date |
| Status Date: | 03/06/2001 |
| Global Id: | T0609791118 |
| Status: | Open - Eligible for Closure |
| Status Date: | 11/21/2013 |
| Global Id: | T0609791118 |
| Status: | Open - Remediation |
| Status Date: | 01/03/2008 |
| Global Id: | T0609791118 |
| Status: | Open - Site Assessment |
| Status Date: | 06/21/2001 |
| Global Id: | T0609791118 |
| Status: | Open - Site Assessment |
| Status Date: | 09/24/2001 |
| Global Id: | T0609791118 |
| Status: | Open - Site Assessment |
| Status Date: | 09/13/2007 |
| Global Id: | T0609791118 |
| Status: | Open - Site Assessment |
| Status Date: | 06/27/2012 |
| Global Id: | T0609791118 |
| Status: | Open - Verification Monitoring |
| Status Date: | 03/15/2012 |

Regulatory Activities:

| | |
|---|---|
| Global Id: | T0609791118 |
| Action Type: | RESPONSE |
| Date: | 09/17/2004 |
| Action: | Corrective Action Plan / Remedial Action Plan |
| Global Id: | T0609791118 |
| Action Type: | ENFORCEMENT |
| Date: | 08/30/2013 |
| Action: | Staff Letter |
| Global Id: | T0609791118 |
| Action Type: | RESPONSE |
| Date: | 10/31/2011 |
| Action: | Monitoring Report - Semi-Annually |

**LEISER, JACK (Continued)** **S101627289**

Global Id: T0609791118
Action Type: RESPONSE
Date: 08/30/2004
Action: Interim Remedial Action Plan

Global Id: T0609791118
Action Type: RESPONSE
Date: 04/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 07/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 11/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 05/31/2006
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 05/15/2013
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T0609791118
Action Type: RESPONSE
Date: 06/30/2013
Action: Soil and Water Investigation Workplan - Addendum - Regulator Responded

Global Id: T0609791118
Action Type: RESPONSE
Date: 07/31/2013
Action: Soil and Water Investigation Workplan - Addendum - Regulator Responded

Global Id: T0609791118
Action Type: RESPONSE
Date: 02/10/2014
Action: Well Destruction Workplan - Regulator Responded

Global Id: T0609791118
Action Type: RESPONSE
Date: 01/10/2006
Action: Other Report / Document

Global Id: T0609791118
Action Type: RESPONSE
Date: 01/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE

**LEISER, JACK (Continued)** **S101627289**

Date: 04/07/2014
Action: Request for Closure - Regulator Responded

Global Id: T0609791118
Action Type: RESPONSE
Date: 04/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 10/31/2007
Action: Other Report / Document

Global Id: T0609791118
Action Type: RESPONSE
Date: 06/14/2007
Action: Other Report / Document

Global Id: T0609791118
Action Type: RESPONSE
Date: 10/01/2007
Action: Soil and Water Investigation Workplan

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 08/12/2008
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 08/21/2008
Action: Staff Letter

Global Id: T0609791118
Action Type: RESPONSE
Date: 10/31/2007
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: Other
Date: 03/06/2001
Action: Leak Discovery

Global Id: T0609791118
Action Type: REMEDIATION
Date: 02/15/2006
Action: Soil Vapor Extraction (SVE)

Global Id: T0609791118
Action Type: REMEDIATION
Date: 01/01/2004
Action: Pump & Treat (P&T) Groundwater

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 11/26/2013
Action: Notification - Public Notice of Case Closure

**LEISER, JACK (Continued)** **S101627289**

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 11/26/2013
Action: Staff Letter

Global Id: T0609791118
Action Type: Other
Date: 03/23/2001
Action: Leak Reported

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 09/12/2011
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 11/01/2002
Action: Site Visit / Inspection / Sampling

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 07/21/2009
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 07/13/2009
Action: File review

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 11/11/2005
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 12/22/2006
Action: File review

Global Id: T0609791118
Action Type: RESPONSE
Date: 01/31/2008
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 04/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 04/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE

**LEISER, JACK (Continued)** **S101627289**

Date: 01/31/2009
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 08/30/2009
Action: Soil and Water Investigation Report

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 02/18/2014
Action: Staff Letter

Global Id: T0609791118
Action Type: RESPONSE
Date: 10/31/2008
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 08/15/2003
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 01/19/2007
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 11/08/2007
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 03/29/2012
Action: Staff Letter

Global Id: T0609791118
Action Type: RESPONSE
Date: 02/07/2007
Action: Remedial Progress Report

Global Id: T0609791118
Action Type: RESPONSE
Date: 10/01/2007
Action: Unknown

Global Id: T0609791118
Action Type: RESPONSE
Date: 12/31/2012
Action: Conceptual Site Model

Global Id: T0609791118
Action Type: RESPONSE
Date: 08/22/2008
Action: Soil and Water Investigation Workplan - Addendum

**LEISER, JACK (Continued)** **S101627289**

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 10/15/2004
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 08/31/2007
Action: Staff Letter

Global Id: T0609791118
Action Type: RESPONSE
Date: 12/31/2012
Action: Other Report / Document

Global Id: T0609791118
Action Type: RESPONSE
Date: 12/31/2012
Action: Monitoring Report - Other

Global Id: T0609791118
Action Type: RESPONSE
Date: 01/31/2013
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: RESPONSE
Date: 04/21/2014
Action: Correspondence

Global Id: T0609791118
Action Type: RESPONSE
Date: 07/31/2008
Action: Monitoring Report - Quarterly

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 08/29/2003
Action: Notification - Proposition 65

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 05/08/2008
Action: File review

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 05/14/2008
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 07/16/2013
Action: Verbal Enforcement

Global Id: T0609791118
Action Type: REMEDIATION

**LEISER, JACK (Continued)** **S101627289**

Date: 12/15/2004
Action: Soil Vapor Extraction (SVE)

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 10/26/2012
Action: Verbal Enforcement

Global Id: T0609791118
Action Type: RESPONSE
Date: 06/06/2013
Action: Soil and Water Investigation Report

Global Id: T0609791118
Action Type: RESPONSE
Date: 04/04/2013
Action: Correspondence

Global Id: T0609791118
Action Type: RESPONSE
Date: 07/30/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 03/15/2007
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 03/23/2004
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 08/17/2004
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 08/17/2004
Action: Notification - Public Notice of ROD/RAP/CAP

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 10/11/2007
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 01/27/2003
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 06/04/2003
Action: File review

**LEISER, JACK (Continued)** **S101627289**

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 06/27/2012
Action: Staff Letter

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 03/04/2013
Action: Staff Letter

Global Id: T0609791118
Action Type: RESPONSE
Date: 06/28/2013
Action: Other Report / Document

Global Id: T0609791118
Action Type: RESPONSE
Date: 07/01/2013
Action: Sensitive Receptor Survey Report

Global Id: T0609791118
Action Type: RESPONSE
Date: 07/15/2013
Action: Conceptual Site Model

Global Id: T0609791118
Action Type: RESPONSE
Date: 06/15/2008
Action: Soil and Water Investigation Workplan

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 05/29/2009
Action: Staff Letter

Global Id: T0609791118
Action Type: RESPONSE
Date: 04/27/2012
Action: Soil and Water Investigation Workplan

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 01/27/2006
Action: File review

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 12/29/2010
Action: File review

Global Id: T0609791118
Action Type: ENFORCEMENT
Date: 06/10/2014
Action: Closure/No Further Action Letter

Global Id: T0609791118
Action Type: RESPONSE

**LEISER, JACK (Continued)** **S101627289**

Date: 12/16/2013
Action: Correspondence

Global Id: T0609791118
Action Type: RESPONSE
Date: 11/25/2013
Action: Soil and Water Investigation Report

Global Id: T0609791118
Action Type: RESPONSE
Date: 11/30/2008
Action: Soil and Water Investigation Report

Global Id: T0609791118
Action Type: RESPONSE
Date: 03/15/2003
Action: Other Workplan

Global Id: T0609791118
Action Type: RESPONSE
Date: 06/11/2003
Action: Other Workplan

Global Id: T0609791118
Action Type: RESPONSE
Date: 09/15/2003
Action: Other Workplan

Global Id: T0609791118
Action Type: RESPONSE
Date: 08/30/2004
Action: Soil and Water Investigation Report

SWEEPS UST:
Status: Active
Comp Number: 52958
Number: 9
Board Of Equalization: 44-028325
Referral Date: 07-01-85
Action Date: Not reported
Created Date: 02-29-88
Owner Tank Id: 1
SWRCB Tank Id: 49-060-052958-000001
Tank Status: A
Capacity: 900
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 2

Status: Active
Comp Number: 52958
Number: 9
Board Of Equalization: 44-028325
Referral Date: 07-01-85

**LEISER, JACK (Continued)** **S101627289**

| | |
|---|---|
| Action Date: | Not reported |
| Created Date: | 02-29-88 |
| Owner Tank Id: | 2 |
| SWRCB Tank Id: | 49-060-052958-000002 |
| Tank Status: | A |
| Capacity: | 1200 |
| Active Date: | 07-01-85 |
| Tank Use: | M.V. FUEL |
| STG: | P |
| Content: | REG UNLEADED |
| Number Of Tanks: | Not reported |

HIST UST:

| | |
|---|---|
| File Number: | 00021985 |
| URL: | http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00021985.pdf |
| Region: | Not reported |
| Facility ID: | Not reported |
| Facility Type: | Not reported |
| Other Type: | Not reported |
| Contact Name: | Not reported |
| Telephone: | Not reported |
| Owner Name: | Not reported |
| Owner Address: | Not reported |
| Owner City,St,Zip: | Not reported |
| Total Tanks: | Not reported |
| | |
| Tank Num: | Not reported |
| Container Num: | Not reported |
| Year Installed: | Not reported |
| Tank Capacity: | Not reported |
| Tank Used for: | Not reported |
| Type of Fuel: | Not reported |
| Container Construction Thickness: | Not reported |
| Leak Detection: | Not reported |

Click here for Geo Tracker PDF:

CA FID UST:

| | |
|---|---|
| Facility ID: | 49003800 |
| Regulated By: | UTNKA |
| Regulated ID: | 00052958 |
| Cortese Code: | Not reported |
| SIC Code: | Not reported |
| Facility Phone: | 7075453977 |
| Mail To: | Not reported |
| Mailing Address: | 532 ASTON AVE |
| Mailing Address 2: | Not reported |
| Mailing City,St,Zip: | SANTA ROSA 95404 |
| Contact: | Not reported |
| Contact Phone: | Not reported |
| DUNs Number: | Not reported |
| NPDES Number: | Not reported |
| EPA ID: | Not reported |
| Comments: | Not reported |
| Status: | Active |

**LEISER, JACK (Continued)** **S101627289**

NOTIFY 65:

| | |
|---|---|
| Date Reported: | Not reported |
| Staff Initials: | Not reported |
| Board File Number: | Not reported |
| Facility Type: | Not reported |
| Discharge Date: | Not reported |
| Issue Date: | Not reported |
| Incident Description: | Not reported |

---

**C12 WNW 1/2-1 0.781 mi. 4124 ft.** **BROMLEY PROPERTY** **LUST** **S102949347**
**1500 SANTA ROSA AVE** **SLIC** **N/A**
**SANTA ROSA, CA 95404** **HIST CORTESE**
**Notify 65**

**Site 1 of 2 in cluster C**

**Relative: Lower**

**Actual: 151 ft.**

LUST:

| | |
|---|---|
| Region: | STATE |
| Global Id: | T0609700752 |
| Latitude: | 38.4232730437348 |
| Longitude: | -122.712726749599 |
| Case Type: | LUST Cleanup Site |
| Status: | Completed - Case Closed |
| Status Date: | 01/06/2014 |
| Lead Agency: | NORTH COAST RWQCB (REGION 1) |
| Case Worker: | ZZZ |
| Local Agency: | SANTA ROSA, CITY OF |
| RB Case Number: | 1TSR327 |
| LOC Case Number: | Not reported |
| File Location: | Regional Board |
| Potential Media Affect: | Aquifer used for drinking water supply |
| Potential Contaminants of Concern: | * Solvents |
| Site History: | Former chrome plating facility with gas UST. Tank portion of site being evaluated for no further action. Solvent case active. Note that there is a companion projectfor non-UST items labeled 1NSR327. |

Click here to access the California GeoTracker records for this facility:

Contact:

| | |
|---|---|
| Global Id: | T0609700752 |
| Contact Type: | Regional Board Caseworker |
| Contact Name: | REGIONAL WATER BOARD SITE CLOSED |
| Organization Name: | NORTH COAST RWQCB (REGION 1) |
| Address: | 5550 SKYLANE BOULEVARD, SUITE A |
| City: | SANTA ROSA |
| Email: | craig.hunt@waterboards.ca.gov |
| Phone Number: | 7075762220 |

| | |
|---|---|
| Global Id: | T0609700752 |
| Contact Type: | Local Agency Caseworker |
| Contact Name: | LOCAL PERMIT WORKER SANTA ROSA |
| Organization Name: | SANTA ROSA, CITY OF |
| Address: | 625 5th Street |
| City: | SANTA ROSA |
| Email: | Not reported |
| Phone Number: | 7075433500 |

Status History:

**BROMLEY PROPERTY (Continued)** **S102949347**

Global Id: T0609700752
Status: Completed - Case Closed
Status Date: 01/06/2014

Global Id: T0609700752
Status: Open - Case Begin Date
Status Date: 09/30/1997

Global Id: T0609700752
Status: Open - Eligible for Closure
Status Date: 01/30/2013

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 11/04/1997

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 10/02/1998

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 10/06/1998

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 12/02/1998

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 05/20/1999

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 06/23/2000

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 09/20/2000

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 04/17/2001

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 05/04/2001

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 06/27/2002

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 08/20/2003

Global Id: T0609700752

**BROMLEY PROPERTY (Continued)** **S102949347**

Status: Open - Site Assessment
Status Date: 11/12/2004

Global Id: T0609700752
Status: Open - Site Assessment
Status Date: 03/28/2011

Regulatory Activities:
Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 06/22/2004
Action: Staff Letter

Global Id: T0609700752
Action Type: RESPONSE
Date: 04/17/2001
Action: Soil and Water Investigation Workplan

Global Id: T0609700752
Action Type: RESPONSE
Date: 05/04/2001
Action: Soil and Water Investigation Workplan

Global Id: T0609700752
Action Type: RESPONSE
Date: 08/21/2001
Action: Monitoring Report - Quarterly

Global Id: T0609700752
Action Type: RESPONSE
Date: 06/27/2002
Action: Soil and Water Investigation Workplan

Global Id: T0609700752
Action Type: RESPONSE
Date: 04/08/2002
Action: Monitoring Report - Quarterly

Global Id: T0609700752
Action Type: RESPONSE
Date: 11/04/1997
Action: Other Report / Document

Global Id: T0609700752
Action Type: RESPONSE
Date: 10/02/1998
Action: Preliminary Site Assessment Workplan

Global Id: T0609700752
Action Type: RESPONSE
Date: 05/20/1999
Action: Preliminary Site Assessment Report

Global Id: T0609700752
Action Type: RESPONSE
Date: 03/26/2001
Action: Monitoring Report - Quarterly

**BROMLEY PROPERTY (Continued)** **S102949347**

Global Id: T0609700752
Action Type: Other
Date: 09/30/1997
Action: Leak Discovery

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 12/27/2013
Action: Staff Letter

Global Id: T0609700752
Action Type: Other
Date: 09/30/1997
Action: Leak Reported

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 01/06/2014
Action: Closure/No Further Action Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 12/20/2004
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 08/06/1998
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 09/30/1997
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 10/06/1998
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 09/20/2000
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 03/29/2001
Action: Meeting

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 02/25/2002
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT

**BROMLEY PROPERTY (Continued)** **S102949347**

Date: 01/05/2004
Action: Staff Letter

Global Id: T0609700752
Action Type: RESPONSE
Date: 06/23/2000
Action: Soil and Water Investigation Workplan

Global Id: T0609700752
Action Type: RESPONSE
Date: 06/06/2001
Action: Soil and Water Investigation Report

Global Id: T0609700752
Action Type: Other
Date: 09/30/1997
Action: Leak Stopped

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 03/25/2010
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 02/04/2013
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 05/24/2011
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 04/07/2009
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 02/04/2013
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 08/27/2002
Action: Staff Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 02/19/2003
Action: Warning Letter

Global Id: T0609700752
Action Type: ENFORCEMENT
Date: 04/18/2011
Action: Staff Letter

**BROMLEY PROPERTY (Continued)** **S102949347**

Global Id: T0609700752
Action Type: RESPONSE
Date: 05/23/2005
Action: Soil and Water Investigation Report

Global Id: T0609700752
Action Type: RESPONSE
Date: 08/20/2003
Action: Soil and Water Investigation Workplan

Global Id: T0609700752
Action Type: RESPONSE
Date: 10/17/2002
Action: Monitoring Report - Quarterly

Global Id: T0609700752
Action Type: RESPONSE
Date: 04/30/2004
Action: Soil and Water Investigation Report

Global Id: T0609700752
Action Type: RESPONSE
Date: 11/12/2004
Action: Soil and Water Investigation Workplan

LUST REG 1:
Region: 1
Facility ID: 1TSR327
Staff Initials: JEF

SLIC:
Region: STATE
**Facility Status: Open - Site Assessment**
Status Date: 12/29/2010
Global Id: T0609791166
Lead Agency: NORTH COAST RWQCB (REGION 1)
Lead Agency Case Number: Not reported
Latitude: 38.4232725539603
Longitude: -122.712784409523
Case Type: Cleanup Program Site
Case Worker: JAT
Local Agency: Not reported
RB Case Number: 1NSR327
File Location: Regional Board
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: * Solvents
Site History: Former chrome plating shop with sump and UST. Note there is a companion UST project for this site labeled 1TSR327.

Click here to access the California GeoTracker records for this facility:

SLIC REG 1:
Region: 1
Facility ID: 1NSR327
Staff Initials: JEF

**BROMLEY PROPERTY (Continued)** **S102949347**

HIST CORTESE:

| | |
|---|---|
| Region: | CORTESE |
| Facility County Code: | 49 |
| Reg By: | LTNKA |
| Reg Id: | 1TSR327 |

NOTIFY 65:

| | |
|---|---|
| Date Reported: | Not reported |
| Staff Initials: | Not reported |
| Board File Number: | Not reported |
| Facility Type: | Not reported |
| Discharge Date: | Not reported |
| Issue Date: | Not reported |
| Incident Description: | Not reported |

---

**C13**
**WNW**
**1/2-1**
**0.813 mi.**
**4291 ft.**

**TRANSCO TRANSMISSIONS**
**1470 SANTA ROSA**
**SANTA ROSA, CA 93582**

**ENVIROSTOR** **U000067576**
**LUST** **N/A**
**HIST CORTESE**
**Notify 65**

**Site 2 of 2 in cluster C**

**Relative:**
**Lower**

**Actual:**
**151 ft.**

ENVIROSTOR:

| | |
|---|---|
| Facility ID: | 49340002 |
| Status: | Refer: RWQCB |
| Status Date: | 03/25/1995 |
| Site Code: | Not reported |
| Site Type: | Historical |
| Site Type Detailed: | * Historical |
| Acres: | Not reported |
| NPL: | NO |
| Regulatory Agencies: | NONE SPECIFIED |
| Lead Agency: | NONE SPECIFIED |
| Program Manager: | Not reported |
| Supervisor: | Referred - Not Assigned |
| Division Branch: | Cleanup Berkeley |
| Assembly: | 10 |
| Senate: | 02 |
| Special Program: | * Rural County Survey Program |
| Restricted Use: | NO |
| Site Mgmt Req: | NONE SPECIFIED |
| Funding: | Not reported |
| Latitude: | 38.42377 |
| Longitude: | -122.7125 |
| APN: | 038-131-020 |
| Past Use: | NONE SPECIFIED |
| Potential COC: | NONE SPECIFIED |
| Confirmed COC: | NONE SPECIFIED |
| Potential Description: | NONE SPECIFIED |
| Alias Name: | INDUSTRIAL HARD CHROME |
| Alias Type: | Alternate Name |
| Alias Name: | 038-131-020 |
| Alias Type: | APN |
| Alias Name: | 49340002 |
| Alias Type: | Envirostor ID Number |

Completed Info:

| | |
|---|---|
| Completed Area Name: | PROJECT WIDE |

**TRANSCO TRANSMISSIONS (Continued)** **U000067576**

Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/06/1988
Comments: FACILITY IDENTIFIED SONOMA COUNTY EH - HVY MET, ORGANICS DISCH TO CEMENT PAD & SEWER

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/26/1988
Comments: SITE SCREENING DONE POSSIBLE ONSITE DISP

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:
Region: STATE
Global Id: T0609700634
Latitude: 38.4237876505221
Longitude: -122.713062025726
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 06/01/2010
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Worker: ZZZ
Local Agency: SANTA ROSA, CITY OF
RB Case Number: 1TSR131
LOC Case Number: Not reported
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: On site discharges addressed. Case closed. On site migration from adjacent sites; petroleum from the north and solvents from the south. Wells to remain in place for future monitoring by other responsible parties.

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0609700634
Contact Type: Regional Board Caseworker
Contact Name: REGIONAL WATER BOARD SITE CLOSED
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: craig.hunt@waterboards.ca.gov
Phone Number: 7075762220

Global Id: T0609700634
Contact Type: Regional Board Caseworker

**TRANSCO TRANSMISSIONS (Continued)** **U000067576**

Contact Name: REGIONAL WATER BOARD SITE CLOSED
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: craig.hunt@waterboards.ca.gov
Phone Number: 7075762220

Global Id: T0609700634
Contact Type: Local Agency Caseworker
Contact Name: LOCAL PERMIT WORKER SANTA ROSA
Organization Name: SANTA ROSA, CITY OF
Address: 625 5th Street
City: SANTA ROSA
Email: Not reported
Phone Number: 7075433500

Status History:

Global Id: T0609700634
Status: Completed - Case Closed
Status Date: 06/01/2010

Global Id: T0609700634
Status: Open - Case Begin Date
Status Date: 01/08/1990

Global Id: T0609700634
Status: Open - Remediation
Status Date: 06/18/2007

Global Id: T0609700634
Status: Open - Remediation
Status Date: 06/27/2007

Global Id: T0609700634
Status: Open - Remediation
Status Date: 06/01/2010

Global Id: T0609700634
Status: Open - Site Assessment
Status Date: 01/26/1990

Global Id: T0609700634
Status: Open - Site Assessment
Status Date: 05/16/1990

Global Id: T0609700634
Status: Open - Site Assessment
Status Date: 07/12/1990

Global Id: T0609700634
Status: Open - Site Assessment
Status Date: 02/08/1996

Global Id: T0609700634
Status: Open - Verification Monitoring
Status Date: 08/17/1998

**TRANSCO TRANSMISSIONS (Continued)** **U000067576**

Regulatory Activities:

Global Id: T0609700634
Action Type: RESPONSE
Date: 06/18/2007
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0609700634
Action Type: RESPONSE
Date: 05/17/2007
Action: Verbal Communication

Global Id: T0609700634
Action Type: RESPONSE
Date: 02/08/1996
Action: Soil and Water Investigation Report

Global Id: T0609700634
Action Type: RESPONSE
Date: 10/11/1991
Action: Monitoring Report - Quarterly

Global Id: T0609700634
Action Type: Other
Date: 01/08/1990
Action: Leak Discovery

Global Id: T0609700634
Action Type: RESPONSE
Date: 03/11/2008
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0609700634
Action Type: Other
Date: 01/08/1990
Action: Leak Reported

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 08/26/1999
Action: Notification - Fee Title Owners Notice

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 01/10/1990
Action: Notification - Proposition 65

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 06/01/2010
Action: Closure/No Further Action Letter

Global Id: T0609700634
Action Type: Other
Date: 01/08/1990
Action: Leak Stopped

Global Id: T0609700634

**TRANSCO TRANSMISSIONS (Continued)** **U000067576**

Action Type: ENFORCEMENT
Date: 05/15/2003
Action: Meeting

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 06/12/2008
Action: Notification - Public Notice of Case Closure

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 10/01/1993
Action: Staff Letter

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 02/23/1990
Action: Staff Letter

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 12/27/1990
Action: Staff Letter

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 08/11/1995
Action: Staff Letter

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 08/17/1998
Action: Staff Letter

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 06/01/2010
Action: Staff Letter

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 04/04/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 11/07/2008
Action: Staff Letter

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 07/28/2009
Action: Staff Letter

Global Id: T0609700634
Action Type: ENFORCEMENT
Date: 11/07/2009

**TRANSCO TRANSMISSIONS (Continued)** **U000067576**

Action: Staff Letter

Global Id: T0609700634
Action Type: RESPONSE
Date: 02/19/1992
Action: Monitoring Report - Quarterly

Global Id: T0609700634
Action Type: RESPONSE
Date: 12/22/1993
Action: Monitoring Report - Quarterly

Global Id: T0609700634
Action Type: RESPONSE
Date: 08/10/1993
Action: Monitoring Report - Quarterly

Global Id: T0609700634
Action Type: RESPONSE
Date: 07/13/1995
Action: Monitoring Report - Quarterly

Global Id: T0609700634
Action Type: RESPONSE
Date: 02/14/2002
Action: Monitoring Report - Quarterly

Global Id: T0609700634
Action Type: RESPONSE
Date: 05/27/2003
Action: Monitoring Report - Quarterly

Global Id: T0609700634
Action Type: RESPONSE
Date: 08/14/2002
Action: Request for Closure

Global Id: T0609700634
Action Type: RESPONSE
Date: 11/14/2002
Action: Request for Closure

Global Id: T0609700634
Action Type: RESPONSE
Date: 05/17/1990
Action: Preliminary Site Assessment Workplan

Global Id: T0609700634
Action Type: RESPONSE
Date: 11/20/1990
Action: Preliminary Site Assessment Report

Global Id: T0609700634
Action Type: RESPONSE
Date: 06/13/1991
Action: Soil and Water Investigation Workplan

**TRANSCO TRANSMISSIONS (Continued)** **U000067576**

Global Id: T0609700634
Action Type: RESPONSE
Date: 02/06/1992
Action: Soil and Water Investigation Report

Global Id: T0609700634
Action Type: RESPONSE
Date: 05/24/1996
Action: Soil and Water Investigation Report

Global Id: T0609700634
Action Type: RESPONSE
Date: 09/28/1994
Action: Interim Remedial Action Report

Global Id: T0609700634
Action Type: RESPONSE
Date: 09/27/1995
Action: Soil and Water Investigation Workplan

Global Id: T0609700634
Action Type: RESPONSE
Date: 04/17/1995
Action: Soil and Water Investigation Report

Global Id: T0609700634
Action Type: RESPONSE
Date: 05/08/1991
Action: Monitoring Report - Quarterly

Global Id: T0609700634
Action Type: RESPONSE
Date: 07/24/1991
Action: Monitoring Report - Quarterly

HIST CORTESE:
Region: CORTESE
Facility County Code: 49
Reg By: LTNKA
Reg Id: 1TSR131

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

**14 WNW 1/2-1 0.832 mi. 4394 ft.** | **FORMER ARCO STATION**
**1745 SANAT ROSA AVE**
**SANTA ROSA, CA 93582** | **Notify 65** | **S100179509**
**N/A**

**Relative: Lower**

**Actual: 144 ft.**

NOTIFY 65:

| | |
|---|---|
| Date Reported: | Not reported |
| Staff Initials: | Not reported |
| Board File Number: | Not reported |
| Facility Type: | Not reported |
| Discharge Date: | Not reported |
| Issue Date: | Not reported |
| Incident Description: | Not reported |

---

**D15 WNW 1/2-1 0.846 mi. 4466 ft.** | **RINO GAS**
**1410 SANTA ROSA AVENUE**
**SANTA ROSA, CA 93582**
**Site 1 of 2 in cluster D** | **Notify 65** | **S100179621**
**N/A**

**Relative: Lower**

**Actual: 151 ft.**

NOTIFY 65:

| | |
|---|---|
| Date Reported: | Not reported |
| Staff Initials: | Not reported |
| Board File Number: | Not reported |
| Facility Type: | Not reported |
| Discharge Date: | Not reported |
| Issue Date: | Not reported |
| Incident Description: | Not reported |

---

**D16 WNW 1/2-1 0.846 mi. 4466 ft.** | **RINO GAS**
**1410 SANTA ROSA AVENUE**
**SANTA ROSA, CA 93582**
**Site 2 of 2 in cluster D** | **Notify 65** | **S100179623**
**N/A**

**Relative: Lower**

**Actual: 151 ft.**

NOTIFY 65:

| | |
|---|---|
| Date Reported: | Not reported |
| Staff Initials: | Not reported |
| Board File Number: | Not reported |
| Facility Type: | Not reported |
| Discharge Date: | Not reported |
| Issue Date: | Not reported |
| Incident Description: | Not reported |

---

**17 WSW 1/2-1 0.904 mi. 4772 ft.** | **NONE**
**2775 SANTA ROSA**
**SANTA ROSA, CA 93582** | **LUST**
**ENF**
**HAZNET**
**HIST CORTESE**
**Notify 65** | **S100179298**
**N/A**

**Relative: Lower**

**Actual: 132 ft.**

LUST:

| | |
|---|---|
| Region: | STATE |
| Global Id: | T0609700610 |
| Latitude: | 38.4102377555059 |
| Longitude: | -122.713516326984 |
| Case Type: | LUST Cleanup Site |

**NONE (Continued)** **S100179298**

| | |
|---|---|
| Status: | Completed - Case Closed |
| Status Date: | 11/03/1995 |
| Lead Agency: | NORTH COAST RWQCB (REGION 1) |
| Case Worker: | ZZZ |
| Local Agency: | SANTA ROSA, CITY OF |
| RB Case Number: | 1TSR099 |
| LOC Case Number: | Not reported |
| File Location: | Not reported |
| Potential Media Affect: | Aquifer used for drinking water supply |
| Potential Contaminants of Concern: | Gasoline |
| Site History: | Not reported |

Click here to access the California GeoTracker records for this facility:

Contact:

| | |
|---|---|
| Global Id: | T0609700610 |
| Contact Type: | Regional Board Caseworker |
| Contact Name: | REGIONAL WATER BOARD SITE CLOSED |
| Organization Name: | NORTH COAST RWQCB (REGION 1) |
| Address: | 5550 SKYLANE BOULEVARD, SUITE A |
| City: | SANTA ROSA |
| Email: | craig.hunt@waterboards.ca.gov |
| Phone Number: | 7075762220 |

| | |
|---|---|
| Global Id: | T0609700610 |
| Contact Type: | Local Agency Caseworker |
| Contact Name: | LOCAL PERMIT WORKER SANTA ROSA |
| Organization Name: | SANTA ROSA, CITY OF |
| Address: | 625 5th Street |
| City: | SANTA ROSA |
| Email: | Not reported |
| Phone Number: | 7075433500 |

Status History:

| | |
|---|---|
| Global Id: | T0609700610 |
| Status: | Completed - Case Closed |
| Status Date: | 11/03/1995 |

| | |
|---|---|
| Global Id: | T0609700610 |
| Status: | Open - Case Begin Date |
| Status Date: | 07/05/1989 |

| | |
|---|---|
| Global Id: | T0609700610 |
| Status: | Open - Remediation |
| Status Date: | 04/29/1993 |

| | |
|---|---|
| Global Id: | T0609700610 |
| Status: | Open - Remediation |
| Status Date: | 06/16/1993 |

| | |
|---|---|
| Global Id: | T0609700610 |
| Status: | Open - Site Assessment |
| Status Date: | 07/19/1989 |

| | |
|---|---|
| Global Id: | T0609700610 |
| Status: | Open - Site Assessment |
| Status Date: | 09/20/1989 |

**NONE (Continued)** **S100179298**

Global Id: T0609700610
Status: Open - Site Assessment
Status Date: 10/06/1989

Global Id: T0609700610
Status: Open - Site Assessment
Status Date: 06/16/1993

Global Id: T0609700610
Status: Open - Verification Monitoring
Status Date: 06/16/1993

Regulatory Activities:
Global Id: T0609700610
Action Type: Other
Date: 07/05/1989
Action: Leak Discovery

Global Id: T0609700610
Action Type: Other
Date: 07/05/1989
Action: Leak Reported

Global Id: T0609700610
Action Type: Other
Date: 07/05/1989
Action: Leak Stopped

Global Id: T0609700610
Action Type: ENFORCEMENT
Date: 09/12/1990
Action: * Historical Enforcement

ENF:
Region: 1
Facility Id: 230094
Agency Name: Not reported
Place Type: Facility
Place Subtype: Groundwater Cleanup Site
Facility Type: All other facilities
Agency Type: Not reported
# Of Agencies: Not reported
Place Latitude: 38.409570
Place Longitude: -122.713540
SIC Code 1: 2844
SIC Desc 1: Perfumes, Cosmetics, and Other Toilet Preparations
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported

**NONE (Continued)** **S100179298**

| | |
|---|---|
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 221391 |
| Region: | 1 |
| Order / Resolution Number: | 90-183 |
| Enforcement Action Type: | Clean-up and Abatement Order |
| Effective Date: | 09/12/1990 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 06/09/1998 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR099NUG Hepper, Tom |
| Description: | PETROLEUM PROD. AFFECTING BENEFICIAL USES OF GW WITH THREATENED CHARGED F/STOCKPILED SOILS. |
| Program: | UST |

**NONE (Continued)** **S100179298**

| | |
|---|---|
| Latest Milestone Completion Date: | 11/3/1995 |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |
| | |
| Region: | 1 |
| Facility Id: | 230094 |
| Agency Name: | Not reported |
| Place Type: | Facility |
| Place Subtype: | Groundwater Cleanup Site |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.409570 |
| Place Longitude: | -122.713540 |
| SIC Code 1: | 2844 |
| SIC Desc 1: | Perfumes, Cosmetics, and Other Toilet Preparations |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |

**NONE (Continued)** **S100179298**

| | |
|---|---|
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 221136 |
| Region: | 1 |
| Order / Resolution Number: | LT951103 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 11/03/1995 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 11/03/1995 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR099NUG Hepper, Tom |
| Description: | CASE CLOSURE. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

HAZNET:

| | |
|---|---|
| envid: | S100179298 |
| Year: | 2014 |
| GEPAID: | CAL000371367 |
| Contact: | RYAN DRAPER |
| Telephone: | 9724095786 |
| Mailing Name: | Not reported |
| Mailing Address: | 8000 BENT BRANCH DR |
| Mailing City,St,Zip: | IRVING, TX 750630000 |
| Gen County: | Sonoma |
| TSD EPA ID: | CAD980884183 |
| TSD County: | Sacramento |
| Waste Category: | Unspecified aqueous solution |
| Disposal Method: | Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.016 |
| Cat Decode: | Unspecified aqueous solution |

**NONE (Continued)** **S100179298**

Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Sonoma

envid: S100179298
Year: 2014
GEPAID: CAL000371367
Contact: RYAN DRAPER
Telephone: 9724095786
Mailing Name: Not reported
Mailing Address: 8000 BENT BRANCH DR
Mailing City,St,Zip: IRVING, TX 750630000
Gen County: Sonoma
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Not reported
Tons: 0.0115
Cat Decode: Unspecified aqueous solution
Method Decode: Not reported
Facility County: Sonoma

envid: S100179298
Year: 2014
GEPAID: CAL000371367
Contact: RYAN DRAPER
Telephone: 9724095786
Mailing Name: Not reported
Mailing Address: 8000 BENT BRANCH DR
Mailing City,St,Zip: IRVING, TX 750630000
Gen County: Sonoma
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0125
Cat Decode: Unspecified solvent mixture
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Sonoma

envid: S100179298
Year: 2014
GEPAID: CAL000371367
Contact: RYAN DRAPER
Telephone: 9724095786
Mailing Name: Not reported
Mailing Address: 8000 BENT BRANCH DR
Mailing City,St,Zip: IRVING, TX 750630000
Gen County: Sonoma
TSD EPA ID: CAD980884183
TSD County: Sacramento
Waste Category: Unspecified solvent mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.013

**NONE (Continued)** **S100179298**

Cat Decode: Unspecified solvent mixture
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Sonoma

envid: S100179298
Year: 2013
GEPAID: CAL000371367
Contact: RYAN DRAPER
Telephone: 9724095786
Mailing Name: Not reported
Mailing Address: 8000 BENT BRANCH DR
Mailing City,St,Zip: IRVING, TX 750630000
Gen County: Sonoma
TSD EPA ID: INR000110197
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Not reported
Tons: 0.0185
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

HIST CORTESE:
Region: CORTESE
Facility County Code: 49
Reg By: LTNKA
Reg Id: 1TSR099

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

---

**18** **REDWOOD EMPIRE LIFE SUPPORT** **LUST** **S100236257**
**NW** **940 PETALUMA HILL** **EMI** **N/A**
**1/2-1** **SANTA ROSA, CA 93582** **ENF**
**0.996 mi.** **HIST CORTESE**
**5261 ft.** **Notify 65**

**Relative:**
**Lower**

**Actual:**
**160 ft.**

LUST:
Region: STATE
Global Id: T0609700629
Latitude: 38.4295889441539
Longitude: -122.710568904877
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/28/2012
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Worker: ZZZ

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Local Agency: | SANTA ROSA, CITY OF |
| RB Case Number: | 1TSR120 |
| LOC Case Number: | Not reported |
| File Location: | Regional Board |
| Potential Media Affect: | Aquifer used for drinking water supply |
| Potential Contaminants of Concern: | Gasoline |
| Site History: | Former Ambulance Service Facility with Gasoline UST |

Click here to access the California GeoTracker records for this facility:

Contact:

| | |
|---|---|
| Global Id: | T0609700629 |
| Contact Type: | Regional Board Caseworker |
| Contact Name: | REGIONAL WATER BOARD SITE CLOSED |
| Organization Name: | NORTH COAST RWQCB (REGION 1) |
| Address: | 5550 SKYLANE BOULEVARD, SUITE A |
| City: | SANTA ROSA |
| Email: | craig.hunt@waterboards.ca.gov |
| Phone Number: | 7075762220 |

| | |
|---|---|
| Global Id: | T0609700629 |
| Contact Type: | Local Agency Caseworker |
| Contact Name: | LOCAL PERMIT WORKER SANTA ROSA |
| Organization Name: | SANTA ROSA, CITY OF |
| Address: | 625 5th Street |
| City: | SANTA ROSA |
| Email: | Not reported |
| Phone Number: | 7075433500 |

Status History:

| | |
|---|---|
| Global Id: | T0609700629 |
| Status: | Completed - Case Closed |
| Status Date: | 09/28/2012 |

| | |
|---|---|
| Global Id: | T0609700629 |
| Status: | Open - Case Begin Date |
| Status Date: | 11/28/1989 |

| | |
|---|---|
| Global Id: | T0609700629 |
| Status: | Open - Remediation |
| Status Date: | 12/03/2003 |

| | |
|---|---|
| Global Id: | T0609700629 |
| Status: | Open - Remediation |
| Status Date: | 01/05/2004 |

| | |
|---|---|
| Global Id: | T0609700629 |
| Status: | Open - Remediation |
| Status Date: | 05/17/2004 |

| | |
|---|---|
| Global Id: | T0609700629 |
| Status: | Open - Remediation |
| Status Date: | 08/28/2005 |

| | |
|---|---|
| Global Id: | T0609700629 |
| Status: | Open - Remediation |
| Status Date: | 06/03/2009 |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

Global Id: T0609700629
Status: Open - Site Assessment
Status Date: 11/28/1989

Global Id: T0609700629
Status: Open - Site Assessment
Status Date: 01/23/1990

Global Id: T0609700629
Status: Open - Site Assessment
Status Date: 09/28/1990

Global Id: T0609700629
Status: Open - Site Assessment
Status Date: 10/13/2000

Global Id: T0609700629
Status: Open - Site Assessment
Status Date: 08/06/2004

Global Id: T0609700629
Status: Open - Site Assessment
Status Date: 10/27/2004

Global Id: T0609700629
Status: Open - Verification Monitoring
Status Date: 06/13/2012

Regulatory Activities:
Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 07/20/2006
Action: Technical Correspondence / Assistance / Other

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 02/09/2010
Action: Staff Letter

Global Id: T0609700629
Action Type: RESPONSE
Date: 06/21/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0609700629
Action Type: RESPONSE
Date: 07/13/2012
Action: Correspondence

Global Id: T0609700629
Action Type: RESPONSE
Date: 02/18/2011
Action: Pilot Study / Treatability Workplan - Regulator Responded

Global Id: T0609700629
Action Type: RESPONSE
Date: 01/10/2011

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

Action: Remedial Progress Report - Regulator Responded

Global Id: T0609700629
Action Type: RESPONSE
Date: 04/11/2005
Action: Other Workplan

Global Id: T0609700629
Action Type: RESPONSE
Date: 10/27/2004
Action: Soil and Water Investigation Workplan

Global Id: T0609700629
Action Type: RESPONSE
Date: 12/22/2006
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: RESPONSE
Date: 12/22/2007
Action: Well Installation Report

Global Id: T0609700629
Action Type: RESPONSE
Date: 05/19/2006
Action: CAP/RAP - Feasibility Study Report

Global Id: T0609700629
Action Type: RESPONSE
Date: 12/22/2006
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: RESPONSE
Date: 10/02/2006
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: RESPONSE
Date: 02/22/2007
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: RESPONSE
Date: 01/10/2007
Action: Other Report / Document

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 10/16/1990
Action: * Historical Enforcement

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 09/28/2012
Action: Closure/No Further Action Letter

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

Global Id: T0609700629
Action Type: RESPONSE
Date: 07/30/2010
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0609700629
Action Type: RESPONSE
Date: 06/21/2010
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: Other
Date: 11/28/1989
Action: Leak Discovery

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 01/10/2007
Action: Verbal Communication

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 10/06/2011
Action: Meeting

Global Id: T0609700629
Action Type: RESPONSE
Date: 10/13/2000
Action: Soil and Water Investigation Workplan

Global Id: T0609700629
Action Type: REMEDIATION
Date: 11/06/2007
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0609700629
Action Type: RESPONSE
Date: 10/07/2010
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: Other
Date: 11/28/1989
Action: Leak Reported

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 11/26/2002
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 07/01/2009
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

Date: 02/07/2012
Action: Staff Letter

Global Id: T0609700629
Action Type: RESPONSE
Date: 08/06/2004
Action: Soil and Water Investigation Workplan

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 03/05/2003
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 05/11/2005
Action: Technical Correspondence / Assistance / Other

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 01/24/2012
Action: Meeting

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 03/28/2012
Action: File review

Global Id: T0609700629
Action Type: REMEDIATION
Date: 11/06/2007
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0609700629
Action Type: REMEDIATION
Date: 04/07/2004
Action: Excavation

Global Id: T0609700629
Action Type: Other
Date: 11/28/1989
Action: Leak Stopped

Global Id: T0609700629
Action Type: RESPONSE
Date: 09/09/2008
Action: Final Remedial Action Report / Corrective Action Report

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 11/08/2003
Action: Meeting

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 09/25/2008
Action: Meeting

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

Global Id: T0609700629
Action Type: RESPONSE
Date: 04/19/2011
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 01/05/2004
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 08/18/2010
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 05/27/2010
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 04/30/2009
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 01/10/2003
Action: Staff Letter

Global Id: T0609700629
Action Type: RESPONSE
Date: 03/04/2009
Action: Remedial Progress Report

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 03/11/2005
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 03/28/2003
Action: Staff Letter

Global Id: T0609700629
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: RESPONSE
Date: 09/29/2008
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0609700629
Action Type: RESPONSE

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

Date: 01/08/2009
Action: Remedial Progress Report

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 03/04/2011
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 01/01/1990
Action: Clean-up and Abatement Order - #90-211

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 12/30/2002
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 07/12/2012
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 06/13/2012
Action: Staff Letter

Global Id: T0609700629
Action Type: ENFORCEMENT
Date: 06/13/2012
Action: Notification - Public Notice of Case Closure

Global Id: T0609700629
Action Type: RESPONSE
Date: 12/30/2002
Action: Soil and Water Investigation Report

Global Id: T0609700629
Action Type: RESPONSE
Date: 01/30/2003
Action: Sensitive Receptor Survey Report

Global Id: T0609700629
Action Type: RESPONSE
Date: 01/30/2003
Action: Sensitive Receptor Survey Report

Global Id: T0609700629
Action Type: RESPONSE
Date: 10/27/2004
Action: Soil and Water Investigation Workplan

Global Id: T0609700629
Action Type: RESPONSE
Date: 12/03/2003
Action: Corrective Action Plan / Remedial Action Plan

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

Global Id: T0609700629
Action Type: RESPONSE
Date: 03/25/2004
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: RESPONSE
Date: 04/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: RESPONSE
Date: 04/04/2005
Action: Monitoring Report - Quarterly

Global Id: T0609700629
Action Type: RESPONSE
Date: 05/17/2004
Action: CAP/RAP - Other Report

Global Id: T0609700629
Action Type: RESPONSE
Date: 02/22/2005
Action: Soil and Water Investigation Report

LUST REG 1:
Region: 1
Facility ID: 1TSR120
Staff Initials: JEF

EMI:
Year: 2008
County Code: 49
Air Basin: SF
Facility ID: 18433
Air District Name: BA
SIC Code: 1799
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: .004
Reactive Organic Gases Tons/Yr: .0027944
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: 49
Air Basin: SF
Facility ID: 18433
Air District Name: BA
SIC Code: 1799
Air District Name: BAY AREA AQMD

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Community Health Air Pollution Info System: | Not reported |
| Consolidated Emission Reporting Rule: | Not reported |
| Total Organic Hydrocarbon Gases Tons/Yr: | 4.0000000000000001E-3 |
| Reactive Organic Gases Tons/Yr: | 2.7943999999999998E-3 |
| 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: | 2010 |
| County Code: | 49 |
| Air Basin: | SF |
| Facility ID: | 18433 |
| Air District Name: | BA |
| SIC Code: | 1799 |
| 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: | 4.0000000000000001E-3 |
| Reactive Organic Gases Tons/Yr: | 2.7943999999999998E-3 |
| 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 |

ENF:

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252226 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Service/Commercial Site, NEC |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.429406 |
| Place Longitude: | -122.710861 |
| SIC Code 1: | 4119 |
| SIC Desc 1: | Local Passenger Transportation, NEC |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 224475 |
| Region: | 1 |
| Order / Resolution Number: | 90-211 |
| Enforcement Action Type: | Clean-up and Abatement Order |
| Effective Date: | 10/16/1990 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 09/28/2012 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR120NUG Redwood Empire Life Support |
| Description: | CAO ISSUED TO REQUIRE PROMPT AND COMPLETE INVESTIGATION AND CLEANUP OF THE PETROLEUM CONTAMINATION. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Total $ Paid/Completed Amount: | 0 |
| Region: | 1 |
| Facility Id: | 252226 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Service/Commercial Site, NEC |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.429406 |
| Place Longitude: | -122.710861 |
| SIC Code 1: | 4119 |
| SIC Desc 1: | Local Passenger Transportation, NEC |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 220827 |
| Region: | 1 |
| Order / Resolution Number: | LT960425 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 04/25/1996 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 04/25/1996 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR120NUG Redwood Empire Life Support |
| Description: | REQUESTING SUBMITTAL OF ADDENDUM TO WORKPLAN. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252226 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Service/Commercial Site, NEC |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.429406 |
| Place Longitude: | -122.710861 |
| SIC Code 1: | 4119 |
| SIC Desc 1: | Local Passenger Transportation, NEC |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 220299 |
| Region: | 1 |
| Order / Resolution Number: | LT970403 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 04/03/1997 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 04/03/1997 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR120NUG Redwood Empire Life Support |
| Description: | REQUESTING SUBMITTAL OF SVE PILOT TEST WORKPLAN. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |
| | |
| Region: | 1 |
| Facility Id: | 252226 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Service/Commercial Site, NEC |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.429406 |
| Place Longitude: | -122.710861 |
| SIC Code 1: | 4119 |
| SIC Desc 1: | Local Passenger Transportation, NEC |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 220125 |
| Region: | 1 |
| Order / Resolution Number: | LT950816 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 08/16/1995 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 08/16/1995 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR120NUG Redwood Empire Life Support |
| Description: | REQUESTING ADDENDUM TO THE WORKPLAN AND CLARIFICATIONS. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252226 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Service/Commercial Site, NEC |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.429406 |
| Place Longitude: | -122.710861 |
| SIC Code 1: | 4119 |
| SIC Desc 1: | Local Passenger Transportation, NEC |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 220100 |
| Region: | 1 |
| Order / Resolution Number: | LT970610 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 06/10/1997 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 06/10/1997 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR120NUG Redwood Empire Life Support |
| Description: | 13267. REQUESTING SUBMITTAL OF WORKPLAN TO CONDUCT THE SVE PILOT TEST. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252226 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Service/Commercial Site, NEC |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.429406 |
| Place Longitude: | -122.710861 |
| SIC Code 1: | 4119 |
| SIC Desc 1: | Local Passenger Transportation, NEC |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 223449 |
| Region: | 1 |
| Order / Resolution Number: | LT940426 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 04/26/1994 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 04/26/1994 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR120NUG Redwood Empire Life Support |
| Description: | REQUESTING SUBMITTAL OF WORKPLAN DEFINING EXTENT OF CONTAMINATION. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |
| | |
| Region: | 1 |
| Facility Id: | 252226 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Service/Commercial Site, NEC |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.429406 |
| Place Longitude: | -122.710861 |
| SIC Code 1: | 4119 |
| SIC Desc 1: | Local Passenger Transportation, NEC |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 223209 |
| Region: | 1 |
| Order / Resolution Number: | LT940722 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 07/22/1994 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 07/22/1994 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Title: | Enforcement - 1B1SR120NUG Redwood Empire Life Support |
| Description: | REQUESTING SUBMITTAL OF REVISED WORKPLAN. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

| | |
|---|---|
| Region: | 1 |
| Facility Id: | 252226 |
| Agency Name: | Not reported |
| Place Type: | Service/Commercial |
| Place Subtype: | Service/Commercial Site, NEC |
| Facility Type: | All other facilities |
| Agency Type: | Not reported |
| # Of Agencies: | Not reported |
| Place Latitude: | 38.429406 |
| Place Longitude: | -122.710861 |
| SIC Code 1: | 4119 |
| SIC Desc 1: | Local Passenger Transportation, NEC |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Enf Action |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | Not reported |
| Program Category1: | Not reported |
| Program Category2: | TANKS |
| # Of Programs: | Not reported |
| WDID: | Not reported |
| Reg Measure Id: | Not reported |
| Reg Measure Type: | Not reported |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Not reported |
| Status Date: | Not reported |
| Effective Date: | Not reported |
| Expiration/Review Date: | Not reported |
| Termination Date: | Not reported |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Not reported |
| Individual/General: | Not reported |
| Fee Code: | Not reported |
| Direction/Voice: | Not reported |
| Enforcement Id(EID): | 225458 |
| Region: | 1 |
| Order / Resolution Number: | LT980112 |
| Enforcement Action Type: | Staff Enforcement Letter |
| Effective Date: | 01/12/1998 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 01/12/1998 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | Enforcement - 1B1SR120NUG Redwood Empire Life Support |
| Description: | 13267. REQUESTING SUBMITTAL OF PLAN FOR REVIEW AND COMMENT. |
| Program: | UST |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability $ Amount: | 0 |
| Project $ Amount: | 0 |
| Liability $ Paid: | 0 |
| Project $ Completed: | 0 |
| Total $ Paid/Completed Amount: | 0 |

HIST CORTESE:

| | |
|---|---|
| Region: | CORTESE |
| Facility County Code: | 49 |
| Reg By: | WBC&D |
| Reg Id: | 1B1SR120NUG |

| | |
|---|---|
| Region: | CORTESE |
| Facility County Code: | 49 |
| Reg By: | LTNKA |
| Reg Id: | 1TSR120 |

NOTIFY 65:

Date Reported: Not reported

**REDWOOD EMPIRE LIFE SUPPORT (Continued)** **S100236257**

| | |
|---|---|
| Staff Initials: | Not reported |
| Board File Number: | Not reported |
| Facility Type: | Not reported |
| Discharge Date: | Not reported |
| Issue Date: | Not reported |
| Incident Description: | Not reported |

Count: 4 records.

ORPHAN SUMMARY

| City | EDR ID | Site Name | Site Address | Zip | Database(s) |
|---|---|---|---|---|---|
| SANTA ROSA | S114639196 | KAWANA SPRINGS PIPELINE | KAWANA SPRINGS | | RGA LUST |
| SANTA ROSA | S109447346 | KAWANA SPRINGS 6 | KAWANA SPRINGS RD | 95404 | NPDES |
| SANTA ROSA | S114639198 | KAWANA SPRINGS PIPELINE | KAWANA SPRINGS | | RGA LUST |
| SANTA ROSA | S114639197 | KAWANA SPRINGS PIPELINE | 0 KAWANA SPRINGS | | RGA LUST |

# 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

***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 | Source: EPA |
| Date Data Arrived at EDR: 04/05/2016 | Telephone: N/A |
| Date Made Active in Reports: 04/15/2016 | Last EDR Contact: 10/05/2016 |
| Number of Days to Update: 10 | 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 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 10/04/2016 | Telephone: 703-603-8704 |
| Date Made Active in Reports: 10/21/2016 | Last EDR Contact: 10/04/2016 |
| Number of Days to Update: 17 | 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 | Source: EPA |
| Date Data Arrived at EDR: 04/05/2016 | Telephone: 800-424-9346 |
| Date Made Active in Reports: 04/15/2016 | Last EDR Contact: 10/20/2016 |
| Number of Days to Update: 10 | 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: 11/18/2016
Next Scheduled EDR Contact: 02/27/2017
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: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
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: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
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: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

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: 11/15/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Quarterly

***State and tribal leaking storage tank lists***

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: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 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 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 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

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 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 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

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 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

SLIC: Statewide SLIC Cases
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 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

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: 11/21/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 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 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

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 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 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 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

***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: 09/20/2016
Date Data Arrived at EDR: 09/21/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 51

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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
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

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/04/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

***Local Lists of Hazardous waste / Contaminated Sites***

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 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: 11/07/2016
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: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
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: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
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: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
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: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
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

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 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

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 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: 12/08/2016
Next Scheduled EDR Contact: 03/20/2017
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: 11/17/2016
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: 11/16/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/11/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
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: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
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: 08/01/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 11/18/2016
Next Scheduled EDR Contact: 02/06/2017
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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/17/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/17/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
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: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
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: 11/23/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
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: 12/01/2016
Next Scheduled EDR Contact: 03/13/2017
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: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
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: 12/02/2016
Next Scheduled EDR Contact: 03/13/2017
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: 07/15/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 65

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Quarterly

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: 12/05/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 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: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
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: 09/26/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 52

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: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
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: 12/02/2016
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: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
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: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
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: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
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: 11/15/2016
Next Scheduled EDR Contact: 02/27/2017
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: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
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: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
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

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: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
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: 10/12/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

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: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/21/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 23

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: 10/25/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/01/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 19

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: 10/11/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

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: 10/25/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 10/24/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

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: 12/02/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/07/2016
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: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
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: 12/02/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
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: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
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: 12/09/2016
Next Scheduled EDR Contact: 03/13/2017
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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/08/2016
Next Scheduled EDR Contact: 02/20/2017
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: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
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: 08/22/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 45

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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
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: 12/02/2016
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: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/16/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
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: 12/09/2016
Next Scheduled EDR Contact: 03/20/2017
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: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
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: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
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: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
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: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
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: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
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: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
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: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 09/27/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 55

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: 08/05/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 12/02/2016
Number of Days to Update: 87

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
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: 11/14/2016
Next Scheduled EDR Contact: 02/27/2017
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: 11/14/2016
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: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
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: 12/31/2015
Date Data Arrived at EDR: 07/22/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 123

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: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
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
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

**STREET AND ADDRESS INFORMATION**

# GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

**TARGET PROPERTY ADDRESS**

KAWANA SPRINGS COMMUNITY PARK
KAWANA SPRINGS COMMUNITY PARK
SANTA ROSA, CA 95404

**TARGET PROPERTY COORDINATES**

| | |
|---|---|
| Latitude (North): | 38.417624 - 38˚ 25' 3.45'' |
| Longitude (West): | 122.693755 - 122˚ 41' 37.52'' |
| Universal Tranverse Mercator: | Zone 10 |
| UTM X (Meters): | 526735.0 |
| UTM Y (Meters): | 4251990.5 |
| Elevation: | 204 ft. above sea level |

**USGS TOPOGRAPHIC MAP**

| | |
|---|---|
| Target Property Map: | 5602166 SANTA ROSA, 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).

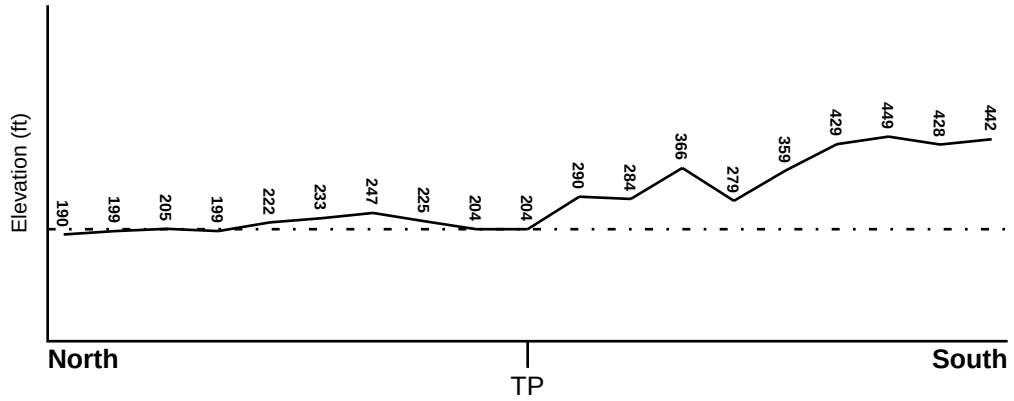
**TOPOGRAPHIC INFORMATION**

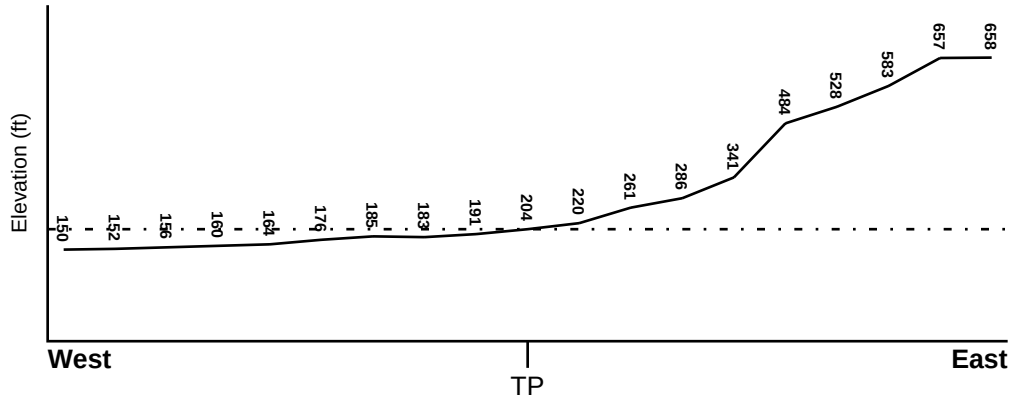
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

**TARGET PROPERTY TOPOGRAPHY**

General Topographic Gradient: General WNW

**SURROUNDING TOPOGRAPHY: ELEVATION PROFILES**




**Target Property Elevation: 204 ft.**

0 1/2 1 Miles

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 |
|---|---|
| 06097C0737F | FEMA FIRM Flood data |

| Additional Panels in search area: | FEMA Source Type |
|---|---|
| 0603750725B | FEMA Q3 Flood data |
| 06097C0741F | FEMA FIRM Flood data |

**NATIONAL WETLAND INVENTORY**

| NWI Quad at Target Property | NWI Electronic Data Coverage |
|---|---|
| SANTA ROSA | 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 |
|---|---|---|
| 4 | 1/2 - 1 Mile WNW | SSW |

For additional site information, refer to Physical Setting Source Map Findings.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

**GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

**GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY**

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

**ROCK STRATIGRAPHIC UNIT**

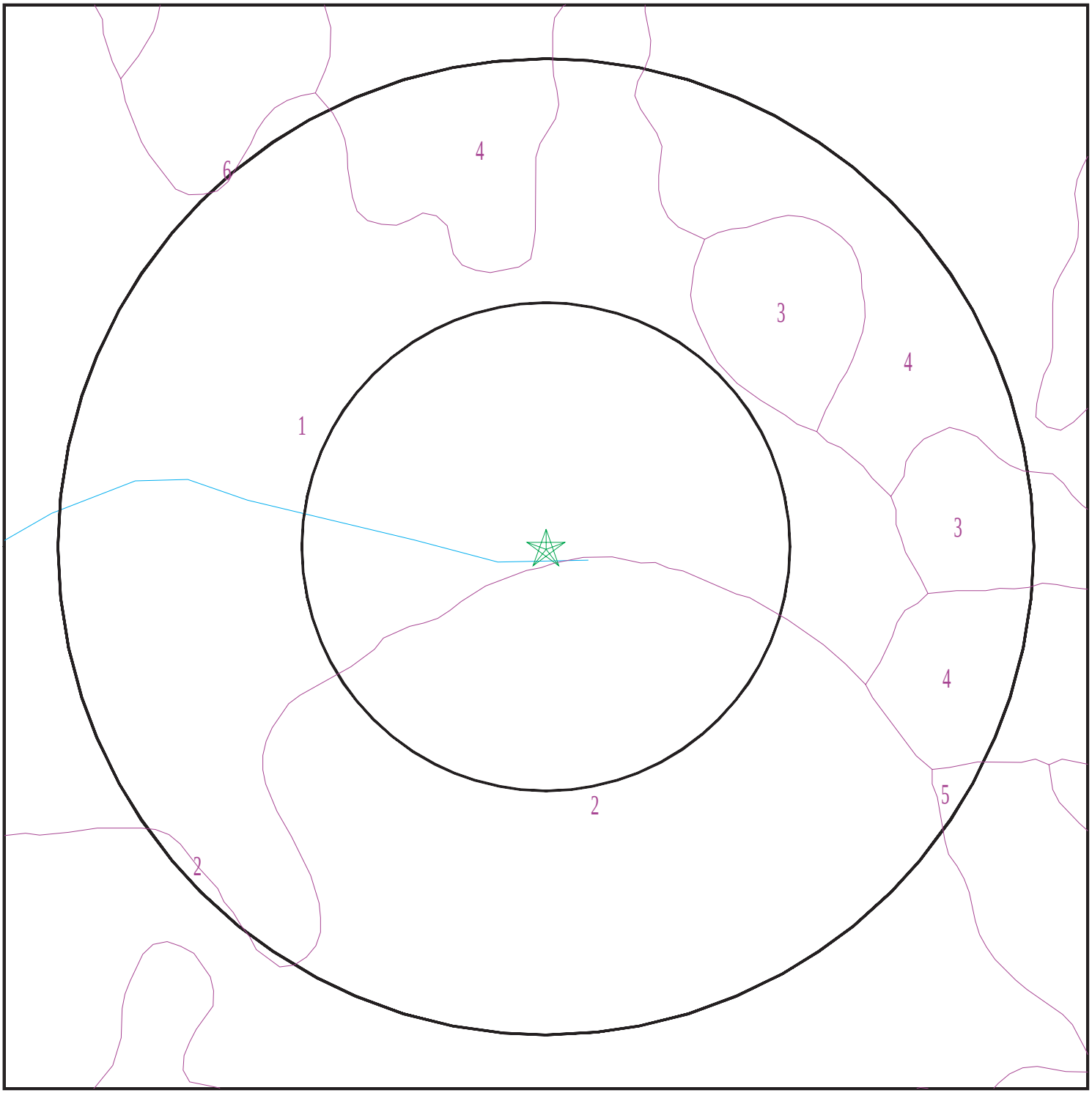
| | |
|---|---|
| Era: | Cenozoic |
| System: | Tertiary |
| Series: | Pliocene volcanic rocks |
| Code: | Tpv *(decoded above as Era, System & Series)* |

**GEOLOGIC AGE IDENTIFICATION**

Category: Volcanic Rocks

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 - 4803087.2s




Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

| | | | |
|---|---|---|---|
| SITE NAME: | Kawana Springs Community Park | CLIENT: | David Powers & Associates |
| ADDRESS: | Kawana Springs Community Park<br>Santa Rosa CA 95404 | CONTACT: | Tali Ashurov |
| | | INQUIRY #: | 4803087.2s |
| LAT/LONG: | 38.417624 / 122.693755 | DATE: | December 12, 2016 5:24 pm |

# 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: 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: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 38 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<br>Min: 0.42 | Max: 7.3<br>Min: 5.6 |
| 2 | 38 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<br>Min: 0.42 | Max: 8.4<br>Min: 7.4 |

---

**Soil Map ID: 2**

Soil Component Name: TOOMES

Soil Surface Texture: loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 31 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), Clayey Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 14<br>Min: 4 | Max: 6.5<br>Min: 5.6 |
| 2 | 12 inches | 16 inches | unweathered bedrock | Not reported | Not reported | Max:<br>Min: | Max: Min: |

---

**Soil Map ID: 3**

Soil Component Name: GOULDING

Soil Surface Texture: cobbly clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 36 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 9 inches | cobbly 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: 14<br>Min: 4 | Max: 6.5<br>Min: 5.6 |

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 2 | 9 inches | 18 inches | very gravelly clay loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel | Max: 14<br>Min: 4 | Max: 6.5<br>Min: 6.1 |
| 3 | 18 inches | 22 inches | unweathered bedrock | Not reported | Not reported | Max:<br>Min: | Max: Min: |

---

**Soil Map ID: 4**

Soil Component Name: RAYNOR

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: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 127 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 | 16 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<br>Min: 0.42 | Max: 7.3<br>Min: 6.1 |
| 2 | 16 inches | 46 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<br>Min: 0.42 | Max: 8.4<br>Min: 7.4 |

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 3 | 46 inches | 55 inches | very cobbly 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 |
| 4 | 55 inches | 59 inches | fragmental material | Not reported | Not reported | Max: Min: | Max: Min: |

**Soil Map ID: 5**

Soil Component Name: GOULDING

Soil Surface Texture: cobbly clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 36 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 9 inches | cobbly 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: 14 Min: 4 | Max: 6.5 Min: 5.6 |
| 2 | 9 inches | 18 inches | very gravelly clay loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel | Max: 14 Min: 4 | Max: 6.5 Min: 6.1 |

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 3 | 18 inches | 22 inches | unweathered bedrock | Not reported | Not reported | Max: Min: | Max: Min: |

**Soil Map ID: 6**

Soil Component Name: HAIRE

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: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Boundary | | | Classification | | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
| Layer | Upper | Lower | Soil Texture Class | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 14 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: 7.3 Min: 6.1 |
| 2 | 14 inches | 27 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: 6 Min: 5.1 |
| 3 | 27 inches | 59 inches | cobbly clay loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel | Max: 1.4 Min: 0.42 | Max: 5.5 Min: 5.1 |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

| DATABASE | SEARCH DISTANCE (miles) |
|---|---|
| Federal USGS | 1.000 |
| Federal FRDS PWS | Nearest PWS within 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

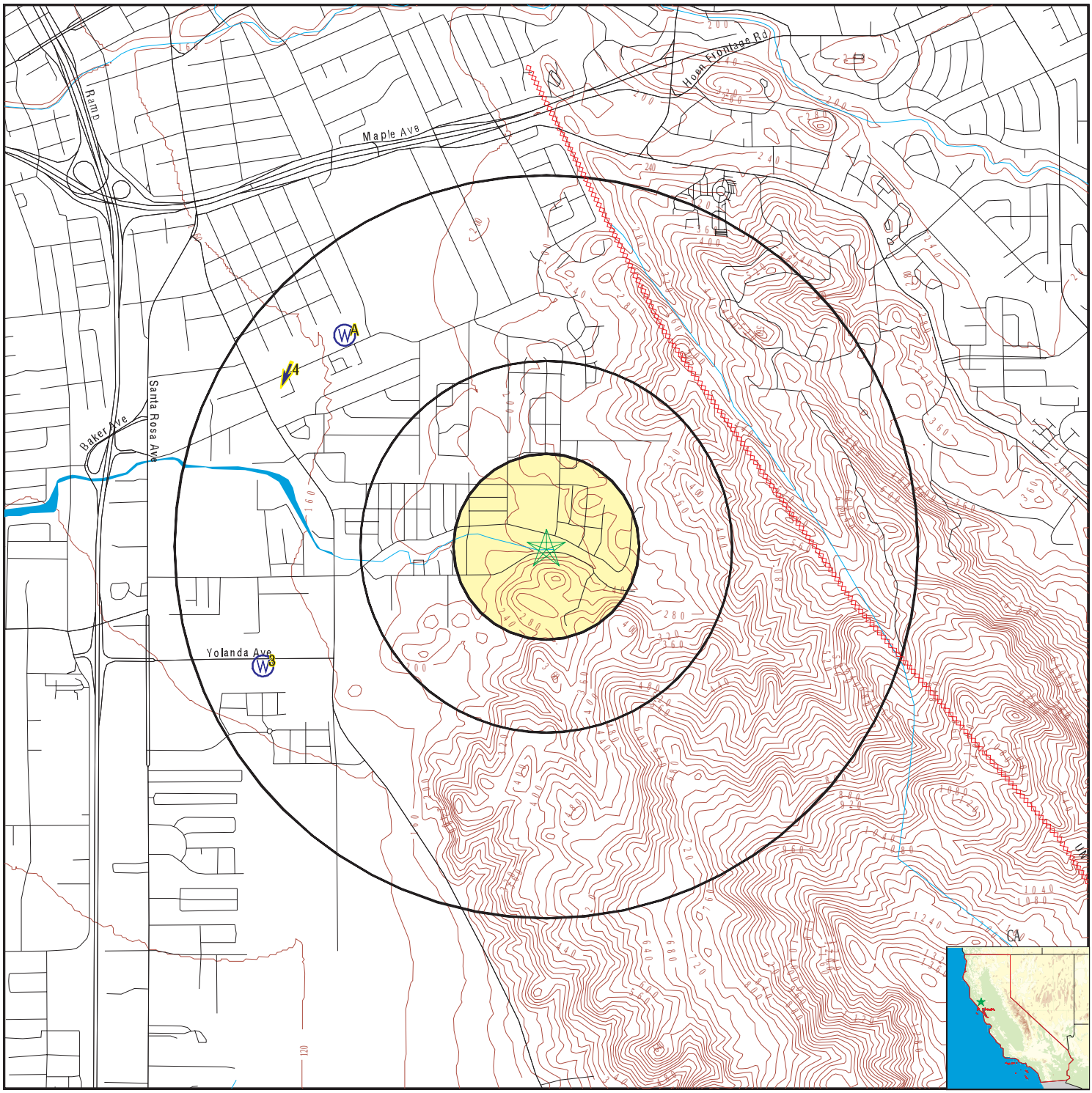
| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| No PWS System Found | | |

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

| MAP ID | WELL ID | LOCATION FROM TP |
|---|---|---|
| A1 | 7411 | 1/2 - 1 Mile NW |
| A2 | 7410 | 1/2 - 1 Mile NW |
| 3 | 7428 | 1/2 - 1 Mile WSW |

# PHYSICAL SETTING SOURCE MAP - 4803087.2s




0 1/4 1/2 1 Miles

- 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

N

| | | | |
|---|---|---|---|
| SITE NAME: | Kawana Springs Community Park | CLIENT: | David Powers & Associates |
| ADDRESS: | Kawana Springs Community Park<br>Santa Rosa CA 95404 | CONTACT: | Tali Ashurov |
| | | INQUIRY #: | 4803087.2s |
| LAT/LONG: | 38.417624 / 122.693755 | DATE: | December 12, 2016 5:18 pm |

| Map ID<br>Direction<br>Distance<br>Elevation | Database | EDR ID Number |
|---|---|---|
| **A1**<br>**NW**<br>**1/2 - 1 Mile**<br>**Lower** | **CA WELLS** | **7411** |

**Water System Information:**

| | | | |
|---|---|---|---|
| Prime Station Code: | 07N/08W-25E05 M | User ID: | RXR |
| FRDS Number: | 4900926001 | County: | Sonoma |
| District Number: | 03 | Station Type: | WELL/AMBNT/MUN/INTAKE |
| Water Type: | Well/Groundwater | Well Status: | Active Untreated |
| Source Lat/Long: | 382534.0 1224208.0 | Precision: | 10 Feet (1/10 Second) |
| Source Name: | WELL 01 | | |
| System Number: | 4900926 | | |
| System Name: | ASTON AVENUE APARTMENTS | | |
| Organization That Operates System: | | | |
| | P.O. BOX 54 | | |
| | SANTA ROSA, CA 95401 | | |
| Pop Served: | 36 | Connections: | 9 |
| Area Served: | Not Reported | | |

---

| | | |
|---|---|---|
| **A2**<br>**NW**<br>**1/2 - 1 Mile**<br>**Lower** | **CA WELLS** | **7410** |

**Water System Information:**

| | | | |
|---|---|---|---|
| Prime Station Code: | 07N/08W-25E03 M | User ID: | RXR |
| FRDS Number: | 4900927001 | County: | Sonoma |
| District Number: | 03 | Station Type: | WELL/AMBNT/MUN/INTAKE |
| Water Type: | Well/Groundwater | Well Status: | Active Untreated |
| Source Lat/Long: | 382533.0 1224211.0 | Precision: | 10 Feet (1/10 Second) |
| Source Name: | WELL 01 | | |
| System Number: | 4900927 | | |
| System Name: | APARTMENTS 939-963 ASTON | | |
| Organization That Operates System: | | | |
| | 945 ASTON AVE. | | |
| | SANTA ROSA, CA 95404 | | |
| Pop Served: | 45 | Connections: | 13 |
| Area Served: | Not Reported | | |

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| | | |
|---|---|---|
| **3**<br>**WSW**<br>**1/2 - 1 Mile**<br>**Lower** | **CA WELLS** | **7428** |

**Water System Information:**

| | | | |
|---|---|---|---|
| Prime Station Code: | 07N/08W-35H02 M | User ID: | RXR |
| FRDS Number: | 4900888001 | County: | Sonoma |
| District Number: | 03 | Station Type: | WELL/AMBNT/MUN/INTAKE |
| Water Type: | Well/Groundwater | Well Status: | Active Raw |
| Source Lat/Long: | 382447.0 1224224.0 | Precision: | 100 Feet (one Second) |
| Source Name: | WELL 01 | | |

System Number: 4900888
System Name: YOLANDA BUSINESS PARK
Organization That Operates System:
P.O. BOX 639
SANTA ROSA, CA 95402
Pop Served: 100 Connections: 8
Area Served: Not Reported

---

**4**
**WNW**
**1/2 - 1 Mile**
**Lower**

| | | | |
|---|---|---|---|
| Site ID: | Not Reported | **AQUIFLOW** | **70985** |
| Groundwater Flow: | SSW | | |
| Shallow Water Depth: | Not Reported | | |
| Deep Water Depth: | Not Reported | | |
| Average Water Depth: | Not Reported | | |
| Date: | 10/30/1994 | | |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
# RADON

**AREA RADON INFORMATION**

State Database: CA Radon

Radon Test Results

| Zipcode | Num Tests | > 4 pCi/L |
|---|---|---|
| 95404 | 20 | 1 |

Federal EPA Radon Zone for SONOMA 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.

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Federal Area Radon Information for Zip Code: 95404

Number of sites tested: 3

| Area | Average Activity | % <4 pCi/L | % 4-20 pCi/L | % >20 pCi/L |
|---|---|---|---|---|
| Living Area - 1st Floor | 0.467 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**

# APPENDIX C
# TRAFFIC REPORTS

# APPENDIX C-1
# TRAFFIC ANALYSIS

April 4, 2018

Mr. Will Burns, AICP
David J. Powers & Associates, Inc.
1611 Telegraph Avenue, Ste. 1002
Oakland, CA 94612

# Kawana Springs Community Park Circulation Analysis

Dear Mr. Burns;

As requested, W-Trans has prepared a traffic analysis for the proposed Kawana Springs Community Park project in southeast Santa Rosa. The purpose of the analysis is to address the potential circulation-related effects of the park on surrounding neighborhoods and streets. The study was completed in support of the project's CEQA review and is consistent with standard traffic engineering techniques.

## Project Description

The proposed project would develop a city park on a currently-undeveloped 19.2-acre site within a residential area in Santa Rosa. Of the 19.2 acres, approximately 5.5 acres would be used as active park space, with the remainder comprised of passive spaces including oak riparian woodland areas, Colgan Creek, storm water detention areas, and seasonal wetland areas. The park would be bound on the north by Kawana Springs Road and on the south by Kawana Terrace. Meda Avenue splits the park space, with active spaces in the western portion to be used for a community garden and walking trails, and active components in the eastern section including picnic areas, a children's play area, a dog park, a bocce ball court, sand volleyball court, pump track, and other recreational spaces in addition to walking paths. The park's primary off-street parking lot would be accessed via Kawana Terrace, just east of the Meda Avenue intersection. A small off-street parking lot would also be provided at the community garden on Kawana Springs Road.

## Study Area and Periods

The study area consists of Kawana Springs Road, Kawana Terrace, and Meda Avenue, all of which front the proposed park site in the southeast quadrant of the City of Santa Rosa. Intersection Level of Service (LOS) was analyzed for the intersection of Petaluma Hill Road/Kawana Springs Road, which is the major intersection nearest the proposed project site and therefore most likely to have a traffic impact associated with drivers traveling to and from the park. Operating conditions during the weekday p.m. peak period and Saturday midday peak period were evaluated to capture the highest potential impacts for the proposed project. The weekday p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of commute-related congestion. In the project area, the Saturday midday peak period occurs between 1:00 and 3:00 p.m.

## Circulation Setting

### Vehicular Circulation

Kawana Springs Road is an east-west road that serves as a connector between residential areas to the east near the project site and commercial uses to the west and provides the area's primary connection to the surrounding arterial street network. Kawana Terrace is a local street that parallels Kawana Springs Road, providing access to several local neighborhood streets as well as the Taylor Mountain Regional Park parking lot. In the study area, Meda Avenue is a local residential north-south street. The speed limit on all three streets is 25 mph.

The study intersection at Petaluma Hill Road/Kawana Springs Road is signalized and has protected-permitted left-turn phasing on all four approaches, plus right-turn overlap signal phasing on the southbound and eastbound approaches. Marked crosswalks with pedestrian signals exist on the north, east, and west intersection legs.

## Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks, crosswalks, and curb ramps provide access for pedestrians near the proposed project site; however, sidewalk gaps can be found along some of the roadways connecting to the project site.

- **Kawana Springs Road** – Intermittent sidewalk coverage is provided on Kawana Springs Road with gaps on the south side of the street between Petaluma Hill Road and Meda Avenue, and on the north side of the street from Brookwood Avenue to Taylor Mountain Place. Curb ramps are provided at each of the side street approaches and crosswalks at the intersection with Meda Avenue. Pedestrian-scale street lighting exists along the street.

- **Kawana Terrace** – Continuous sidewalk coverage exists on the north side of the street between Kawana Springs Road and Meda Avenue. To the east of Meda Avenue, Kawana Terrace transitions to a more rural character without curbs, sidewalks, or street lighting.

- **Meda Avenue** – Continuous sidewalks are provided on both sides of Meda Avenue between Kawana Terrace and Tokay Street. There are existing curb ramps at each corner and crosswalks at the intersection with Kawana Springs Road. Lighting is provided by pedestrian-scale street lights.

## Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.

In the project area, Class II bike lanes exist on Kawana Springs Road, Petaluma Hill Road, and Brookwood Avenue. Otherwise, within the study area, bicyclists ride in the roadway on local streets. Table 1 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *City of Santa Rosa Bicycle and Pedestrian Master Plan*, 2010.

**Table 1– Bicycle Facility Summary**

| Status<br>Facility | Class | Length (miles) | Begin Point | End Point |
|---|---|---|---|---|
| **Existing** | | | | |
| Colgan Creek Trail | I | 0.6 | Colgan Ave | Petaluma Hill Rd |
| Petaluma Hill Rd | II | 0.9 | Barham Ave-Pressley St | Kawana Springs Rd |
| Kawana Springs Rd (WB) | II | 0.50 | Santa Rosa Ave | Petaluma Hill Rd |
| Kawana Springs Rd | II | 0.50 | Petaluma Hill Rd | Brookwood Ave |
| **Planned** | | | | |
| Kawana Springs Rd | II | 0.33 | Brookwood Ave | Farmers Ln |
| Colgan Creek Trail | I | 0.64 | Meda Ave | Kawana Creek |

Source: *City of Santa Rosa Bicycle and Pedestrian Master Plan*, City of Santa Rosa, 2010

### Transit Facilities

Sonoma County Transit (SCT) and Santa Rosa CityBus provide fixed-route bus service in Santa Rosa and near the project. Santa Rosa CityBus Local Route 5 provides service to the downtown Mall, facilitating transfers to other routes and destinations throughout the City. Route 5 stops at the intersection of Petaluma Hill Road/Kawana Springs Road just west of the project site. The route operates Monday through Friday with approximately half-hour headways between 6:15 a.m. and 8:15 p.m. Saturday service operates with approximately one-hour headways between 6:30 a.m. and 7:30 p.m. Sunday service operates approximately one-hour headways from 10:30 a.m. and 4:30 p.m.

SCT Route 46 also stops at the intersection of Kawana Springs Road/Petaluma Hill Road and provides service to the downtown transit center, Sonoma State University, and the Cotati SMART depot. Route 46 only operates during commute hours with about 50-minute headways in the northbound direction and 30-minute headways in the southbound direction.

## Collision History

The collision histories for the three streets in the study area were reviewed to determine any trends or patterns that may indicate a safety issue. Where count information was available, the collision rate was calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is January 1, 2013 through December 31, 2017. Where the collision rate was calculated, it was compared to the statewide average for similar facilities, as indicated in *2013 Collision Data on California State Highways*, California Department of Transportation (Caltrans).

On Kawana Springs Road between Petaluma Hill Road and the eastern boundary of the proposed project, there were ten reported collisions in five years, resulting in a collision rate of 0.51 collisions per million vehicle miles (c/mvm), which is less than that statewide average of 2.21 c/mvm for similar facilities. Of the ten collisions, three occurred along the frontage of the proposed project, all of which were single-vehicle collisions. Two of the collisions occurred at night and had "driving under the influence" as the primary collision factor. The other had a primary collision factor of "unsafe speed" at the intersection with Meda Avenue, which at the time of the collision did not have all-way stop-controls in place.

On the full length of Kawana Terrace there were two reported collisions, though none were along the proposed project's frontage. The two collisions were associated with unsafe starting and stopping at the intersection with Zircon Place.

Meda Avenue between Tokay Avenue and Kawana Terrace had only one reported collision within the most recent five years of data; it occurred near the intersection with Tokay Avenue and was therefore not along the project frontage.

Based on the collision records reviewed for the three segments, there is no indication of potential existing safety concerns that could be exacerbated by the addition of project-related traffic.

## Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersection was analyzed using the signalized methodology published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2010. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether or not the signal is coordinated, truck traffic, and pedestrian

activity. The signal timing parameters for the intersection were obtained from the City of Santa Rosa. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology.

The ranges of delay associated with the various levels of service are indicated in Table 2.

| Table 2 – Signalized Intersection Level of Service Criteria | |
|---|---|
| LOS A | Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all. |
| LOS B | Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop. |
| LOS C | Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping. |
| LOS D | Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop. |
| LOS E | Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive. |
| LOS F | Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection. |

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010

## Traffic Operations

The City of Santa Rosa's adopted Level of Service (LOS) Standard is contained in *Santa Rosa General Plan 2035*. Standard TD-1 states that the City will try to maintain a Level of Service (LOS) D or better along all major corridors. Exceptions to meeting this standard are allowed where attainment would result in significant environmental degradation; where topography or environmental impacts make the improvement impossible; or where attainment would ensure loss of an area's unique character.

While a corridor level of service is applied by the City in its analysis of the entire City as part of the environmental documentation supporting the General Plan, this type of analysis only provides relevant data when performed on a much longer segment than the one included as the study area for the project. Therefore, although the City's standard does not specify criteria for intersections, for the purposes of this study, as is standard practice for such studies, a minimum operation of LOS D for operation of the signalized intersection was applied.

## Trip Generation

The Institute of Transportation Engineers (ITE) publication *Trip Generation Manual*, 10th Edition, 2017, is typically used as a source of trip generation rates for traffic impact analyses. Because *Trip Generation* contains limited data for parks and recreational uses, trip generation rates developed by SANDAG (San Diego Area Council of Governments) were instead applied. SANDAG has rates specific to developed "City Parks" with active uses including sports facilities and is well-suited to estimate the potential trip generation of Kawana Springs Park. The trip generation rates were applied only to the 5.5-acres of active park space, as the passive park acreage (comprised primarily of oak woodland, creekside and riparian areas, detention basins, and seasonal wetland areas) would be expected to generate essentially no park user activity or vehicle trips.

The standard rate for a City Park published by Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017 was also reviewed but not considered for this project since the rates resulted in a lower trip generation than was achieved using the SANDAG rates.

Because the SANDAG reference does not include trip generation rates for the weekend peak hour, rates from the City Park land use in the *Trip Generation Manual* were used to determine a factor to translate weekday p.m. peak hour rates to a weekend peak hour rate. In reviewing the limited data in *Trip Generation*, it was determined that the weekend midday peak hour rate is approximately three-and-a-half times higher than the weekday p.m. peak hour rate. This factor was applied to SANDAG's p.m. peak rate to determine a weekend rate for the analysis.

Based on the applied assumptions and trip generation rates, the proposed project is expected to generate an average of 275 daily trips, including 25 during the p.m. peak hour and 87 during the weekend midday peak hour. The trip generation estimates for the proposed project are summarized in Table 3.

**Table 3– Trip Generation Summary**

| Land Use | Units | Daily | | PM Peak Hour | | | | Weekend Midday Peak | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Rate | Trips | Rate | Trips | In | Out | Rate | Trips | In | Out |
| City Park | 5.5 ac | 50 | 275 | 4.50 | 25 | 12 | 13 | 15.75 | 87 | 44 | 43 |

Note: ac=acres of active park space

## Trip Distribution

The pattern used to allocate new project trips to the street network was based on prevailing circulation patterns, along with consideration of existing counts at the study intersection. While most of the park's users are likely to be from surrounding neighborhoods, 75 percent of auto trips were conservatively assumed to pass through the study intersection at Petaluma Hill Road/Kawana Springs Road. The remaining 25 percent of auto trips were assumed to be oriented to local neighborhoods within an approximately half-mile radius of the proposed park site. The applied distribution assumptions and resulting trips are shown in Table 4.

**Table 4– Trip Distribution Assumptions**

| Route | Percent | Daily Trips | PM Peak Trips | Saturday Midday Peak Trips |
|---|---|---|---|---|
| To/From Petaluma Hill Rd North of Kawana Springs Rd | 37% | 102 | 9 | 33 |
| To/From Petaluma Hill Rd South of Kawana Springs Rd | 19% | 52 | 5 | 16 |
| To/From Kawana Springs Rd West of Petaluma Hill Rd | 19% | 52 | 5 | 16 |
| To/From Neighborhood | 25% | 69 | 6 | 22 |
| **TOTAL** | **100%** | **275** | **25** | **87** |

## Existing and Existing plus Project Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the p.m. and weekend peak periods. The Existing plus Project scenario adds traffic associated with the proposed Kawana Springs Park project to the existing volumes.

The intersection of Petaluma Hill Road/Kawana Springs Road currently operates acceptably at LOS C during the weekday p.m. peak hour, and LOS B during the weekend midday peak hour. Upon the addition of project-related traffic to the existing volumes, the intersection is expected to continue operating acceptably at the same service levels as without the project. These results are summarized in Table 5.

**Table 5 – Existing and Existing plus Project Peak Hour Intersection Levels of Service**

| Study Intersection | Existing Conditions | | | | Existing plus Project | | | |
|---|---|---|---|---|---|---|---|---|
| | PM Peak | | Weekend Peak | | PM Peak | | Weekend Peak | |
| | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| 1. Petaluma Hill Rd/Kawana Springs Rd | 24.7 | C | 15.6 | B | 24.9 | C | 16.1 | B |

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

**Finding** – The study intersection is expected to continue operating acceptably at the same levels of service upon the addition of project-generated traffic to existing volumes.

## Future and Future plus Project Conditions

Segment volumes for the horizon year of 2040 were obtained from the SCTA travel demand model and translated to turning movement volumes at the study intersection using the "Furness" method for the p.m. peak hour. The Furness method is an iterative process that employs existing turn movement data, existing link volumes and future link volumes to project likely turning future movement volumes at intersections. The SCTA model does not include weekend projections. Based on the model's projected weekday growth on nearby segments, a growth factor of 1.28 (which translates to a growth rate of slightly greater than one percent per year) was applied to the existing weekend volumes to estimate weekend midday peak hour volumes in 2040.

Under future conditions without the project, the intersection is expected to continue operating acceptably at LOS C or better. Upon the addition of project-generated traffic to future volumes, operation is projected to remain unchanged and at acceptable levels. The Future and Future plus Project operating conditions are summarized in Table 6.

**Table 6– Future and Future plus Project Peak Hour Levels of Service**

| Study Intersection | Future Conditions | | | | Future plus Project | | | |
|---|---|---|---|---|---|---|---|---|
| | PM Peak | | Weekend Peak | | PM Peak | | Weekend Peak | |
| | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| 1.Petaluma Hill Rd/Kawana Springs Rd | 29.3 | C | 18.4 | B | 29.6 | C | 19.0 | B |

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

**Finding** – The study intersection is projected to continue operating acceptably under Future conditions both without and with the addition of project-generated traffic.

## Non-Auto Modes

### Pedestrian Facilities

Given that the proposed project is located within a residential community, it is reasonable to assume that many users will want to walk or bicycle to reach the park.

As part of the project, walking trails would be installed throughout the site. Where there are currently no sidewalks along the south side of Kawana Springs Road the proposed project includes walking paths. The two sections of the park, divided by Meda Avenue, would be connected by crosswalks at the all-way stop-controlled Meda Avenue/Kawana Springs Avenue intersection. The crosswalks at the Meda Avenue intersection would also serve pedestrians crossing Kawana Springs Avenue.

The park would also include pedestrian connections to the existing sidewalk network on Meda Avenue south of Kawana Springs Road, and to the Meda Avenue/Kawana Terrace intersection. There are no proposed sidewalks or walking paths proposed along Kawana Terrace other than the connection to the intersection with Meda Avenue. Interior pathways link the park's proposed parking lot on Kawana Terrace to the park's facilities. Since the only other destination to the east on Kawana Terrace is the Taylor Mountain Regional Park parking lot, pedestrian facilities along the project's Kawana Terrace frontage are not recommended as they would potentially encourage Taylor Mountain visitors to park their vehicle at the Kawana Springs parking lot, as opposed to using the Taylor Mountain paid parking lot. Pedestrian connectivity between Kawana Springs Park and Taylor Mountain Regional Park would still be accommodated by a developed pathway along Kawana Springs Road and pedestrian bridge over Colgan Creek near the Taylor Mountain Regional Park entrance.

**Finding** – Pedestrian facilities serving the project site are adequate.

### Bicycle Facilities

Existing bicycle facilities, including bike lanes on streets together with shared use of minor streets, provide adequate access to the park for bicyclists. Bike lanes on Kawana Springs Road east of Brookwood Avenue are included in the City's Bike Plan, so it is recommended that the City install the bike lanes along the site's frontage as part of the park project.

**Finding** – Bicycle facilities serving the project site are generally adequate, though would benefit from completion of a planned bike lane on Kawana Springs Road.

**Recommendation** – The proposed project should include the installation of planned bike lanes on the segment of Kawana Springs Road fronting the project site between Brookwood Avenue and Rudesill Lane.

### Transit

Existing transit routes are adequate to accommodate project-generated transit trips. Existing bus stops are within acceptable walking distance of the site, and accessible via continuous sidewalks.

**Finding** – Transit facilities serving the project site are adequate.

## Conclusions and Recommendations

- The proposed project is expected to generate an average of 275 weekday trips, of which 25 would occur during the p.m. peak hour. Approximately 87 trips are anticipated to be generated during the Saturday midday peak hour.
- Under the existing and future scenarios, without and with the proposed project, the intersection of Kawana Springs Road/Petaluma Hill Road is expected to operate acceptably at LOS C or better.
- Transit facilities serving the site are adequate.
- The proposed bicycle and pedestrian facilities serving the site are generally adequate, though would benefit from an extension of the bike lane network.
- Construction of the proposed park should include the installation of bike lanes on the segment of Kawana Springs Road fronting the project site between Brookwood Avenue and Rudesill Lane.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Briana Byrne, EIT
Assistant Engineer

Zack Matley, AICP
Associate Principal

REGISTERED PROFESSIONAL ENGINEER
DALENE J. WHITLOCK
TR001552
TRAFFIC
STATE OF CALIFORNIA

ZM/bkb/SRO392.L1

Enclosure: Level of Service Calculations

## HCM 2010 Signalized Intersection Summary
## 1: Petaluma Hill Rd & Kawana Springs Rd

03/05/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 200 | 197 | 117 | 148 | 199 | 28 | 115 | 673 | 192 | 16 | 412 | 265 |
| Future Volume (veh/h) | 200 | 197 | 117 | 148 | 199 | 28 | 115 | 673 | 192 | 16 | 412 | 265 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 200 | 197 | 64 | 148 | 199 | 24 | 115 | 673 | 173 | 16 | 412 | 138 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 486 | 615 | 612 | 485 | 506 | 61 | 336 | 1196 | 307 | 271 | 735 | 761 |
| Arrive On Green | 0.09 | 0.33 | 0.33 | 0.08 | 0.31 | 0.31 | 0.06 | 0.43 | 0.43 | 0.02 | 0.39 | 0.39 |
| Sat Flow, veh/h | 1774 | 1863 | 1578 | 1774 | 1626 | 196 | 1774 | 2776 | 713 | 1774 | 1863 | 1547 |
| Grp Volume(v), veh/h | 200 | 197 | 64 | 148 | 0 | 223 | 115 | 429 | 417 | 16 | 412 | 138 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1578 | 1774 | 0 | 1822 | 1774 | 1770 | 1719 | 1774 | 1863 | 1547 |
| Q Serve(g_s), s | 7.4 | 7.9 | 2.6 | 5.6 | 0.0 | 9.6 | 3.7 | 18.2 | 18.2 | 0.5 | 17.2 | 5.0 |
| Cycle Q Clear(g_c), s | 7.4 | 7.9 | 2.6 | 5.6 | 0.0 | 9.6 | 3.7 | 18.2 | 18.2 | 0.5 | 17.2 | 5.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.41 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 486 | 615 | 612 | 485 | 0 | 567 | 336 | 762 | 741 | 271 | 735 | 761 |
| V/C Ratio(X) | 0.41 | 0.32 | 0.10 | 0.31 | 0.00 | 0.39 | 0.34 | 0.56 | 0.56 | 0.06 | 0.56 | 0.18 |
| Avail Cap(c_a), veh/h | 531 | 615 | 612 | 564 | 0 | 567 | 475 | 762 | 741 | 446 | 735 | 761 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.0 | 25.1 | 19.5 | 20.7 | 0.0 | 27.0 | 18.0 | 21.4 | 21.4 | 18.3 | 24.5 | 14.3 |
| Incr Delay (d2), s/veh | 0.2 | 1.4 | 0.3 | 0.1 | 0.0 | 2.0 | 0.2 | 3.0 | 3.1 | 0.0 | 3.1 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.6 | 4.3 | 1.2 | 2.7 | 0.0 | 5.2 | 1.8 | 9.4 | 9.2 | 0.3 | 12.0 | 2.2 |
| LnGrp Delay(d),s/veh | 20.2 | 26.4 | 19.9 | 20.9 | 0.0 | 29.1 | 18.2 | 24.4 | 24.5 | 18.3 | 32.0 | 14.8 |
| LnGrp LOS | C | C | B | C | | C | B | C | C | B | C | B |
| Approach Vol, veh/h | | 461 | | | 371 | | | 961 | | | 566 | |
| Approach Delay, s/veh | | 22.8 | | | 25.8 | | | 23.7 | | | 27.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phs Duration (G+Y+Rc), s | 10.5 | 36.9 | 8.8 | 43.8 | 12.5 | 35.0 | 5.2 | 47.4 |
| Change Period (Y+Rc), s | 3.0 | 3.9 | 3.0 | * 4.3 | 3.0 | 3.9 | 3.0 | 4.3 |
| Max Green Setting (Gmax), s | 12.0 | 31.1 | 12.0 | * 31 | 12.0 | 31.1 | 12.0 | 30.7 |
| Max Q Clear Time (g_c+I1), s | 7.6 | 9.9 | 5.7 | 19.2 | 9.4 | 11.6 | 2.5 | 20.2 |
| Green Ext Time (p_c), s | 0.1 | 1.3 | 0.1 | 1.6 | 0.1 | 1.2 | 0.0 | 2.8 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 24.7 |
| HCM 2010 LOS | C |

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



## HCM 2010 Signalized Intersection Summary
## 1: Petaluma Hill Rd & Kawana Springs Rd

03/05/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 142 | 53 | 94 | 151 | 26 | 86 | 330 | 67 | 28 | 377 | 173 |
| Future Volume (veh/h) | 188 | 142 | 53 | 94 | 151 | 26 | 86 | 330 | 67 | 28 | 377 | 173 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 0.97 | 0.99 | | 0.98 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 188 | 142 | 29 | 94 | 151 | 23 | 86 | 330 | 60 | 28 | 377 | 90 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 470 | 361 | 445 | 479 | 254 | 39 | 408 | 1059 | 190 | 503 | 570 | 663 |
| Arrive On Green | 0.13 | 0.20 | 0.20 | 0.09 | 0.16 | 0.16 | 0.09 | 0.34 | 0.34 | 0.04 | 0.29 | 0.29 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 1572 | 239 | 1774 | 2987 | 536 | 1774 | 1863 | 1520 |
| Grp Volume(v), veh/h | 188 | 142 | 29 | 94 | 0 | 174 | 86 | 194 | 196 | 28 | 377 | 90 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 0 | 1811 | 1774 | 1770 | 1754 | 1774 | 1863 | 1520 |
| Q Serve(g_s), s | 3.5 | 2.8 | 0.6 | 1.8 | 0.0 | 3.8 | 1.3 | 3.5 | 3.6 | 0.5 | 7.7 | 1.6 |
| Cycle Q Clear(g_c), s | 3.5 | 2.8 | 0.6 | 1.8 | 0.0 | 3.8 | 1.3 | 3.5 | 3.6 | 0.5 | 7.7 | 1.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.13 | 1.00 | | 0.31 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 470 | 361 | 445 | 479 | 0 | 292 | 408 | 627 | 622 | 503 | 570 | 663 |
| V/C Ratio(X) | 0.40 | 0.39 | 0.07 | 0.20 | 0.00 | 0.60 | 0.21 | 0.31 | 0.32 | 0.06 | 0.66 | 0.14 |
| Avail Cap(c_a), veh/h | 967 | 923 | 926 | 824 | 0 | 685 | 766 | 1899 | 1882 | 920 | 2017 | 1844 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.1 | 16.2 | 12.2 | 13.7 | 0.0 | 18.0 | 9.8 | 10.4 | 10.4 | 9.7 | 14.1 | 7.7 |
| Incr Delay (d2), s/veh | 0.2 | 0.7 | 0.1 | 0.1 | 0.0 | 1.9 | 0.1 | 0.1 | 0.1 | 0.0 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.4 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 1.6 | 0.3 | 0.9 | 0.0 | 2.2 | 0.7 | 1.7 | 1.8 | 0.2 | 7.0 | 0.7 |
| LnGrp Delay(d),s/veh | 13.4 | 16.9 | 12.3 | 13.8 | 0.0 | 19.9 | 9.9 | 10.5 | 10.5 | 9.7 | 24.0 | 7.7 |
| LnGrp LOS | B | B | B | B | | B | A | B | B | A | C | A |
| Approach Vol, veh/h | | 359 | | | 268 | | | 476 | | | 495 | |
| Approach Delay, s/veh | | 14.7 | | | 17.8 | | | 10.4 | | | 20.2 | |
| Approach LOS | | B | | | B | | | B | | | C | |

| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phs Duration (G+Y+Rc), s | 7.0 | 12.2 | 6.8 | 16.5 | 8.4 | 10.9 | 4.7 | 18.7 |
| Change Period (Y+Rc), s | 3.0 | 3.9 | 3.0 | * 4.3 | 3.0 | 3.9 | 3.0 | 4.3 |
| Max Green Setting (Gmax), s | 12.0 | 21.1 | 12.0 | * 46 | 17.0 | 16.1 | 12.0 | 45.7 |
| Max Q Clear Time (g_c+I1), s | 3.8 | 4.8 | 3.3 | 9.7 | 5.5 | 5.8 | 2.5 | 5.6 |
| Green Ext Time (p_c), s | 0.1 | 0.7 | 0.1 | 1.7 | 0.2 | 0.6 | 0.0 | 1.6 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 15.6 |
| HCM 2010 LOS | B |

Notes

## HCM 2010 Signalized Intersection Summary
## 1: Petaluma Hill Rd & Kawana Springs Rd

03/12/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 200 | 199 | 117 | 150 | 201 | 33 | 115 | 673 | 194 | 20 | 412 | 265 |
| Future Volume (veh/h) | 200 | 199 | 117 | 150 | 201 | 33 | 115 | 673 | 194 | 20 | 412 | 265 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 200 | 199 | 64 | 150 | 201 | 29 | 115 | 673 | 175 | 20 | 412 | 138 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 480 | 614 | 611 | 484 | 493 | 71 | 336 | 1181 | 307 | 274 | 735 | 761 |
| Arrive On Green | 0.09 | 0.33 | 0.33 | 0.08 | 0.31 | 0.31 | 0.06 | 0.43 | 0.43 | 0.03 | 0.39 | 0.39 |
| Sat Flow, veh/h | 1774 | 1863 | 1578 | 1774 | 1586 | 229 | 1774 | 2768 | 719 | 1774 | 1863 | 1547 |
| Grp Volume(v), veh/h | 200 | 199 | 64 | 150 | 0 | 230 | 115 | 430 | 418 | 20 | 412 | 138 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1578 | 1774 | 0 | 1815 | 1774 | 1770 | 1718 | 1774 | 1863 | 1547 |
| Q Serve(g_s), s | 7.4 | 8.0 | 2.6 | 5.7 | 0.0 | 10.0 | 3.7 | 18.4 | 18.4 | 0.7 | 17.2 | 5.0 |
| Cycle Q Clear(g_c), s | 7.4 | 8.0 | 2.6 | 5.7 | 0.0 | 10.0 | 3.7 | 18.4 | 18.4 | 0.7 | 17.2 | 5.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.13 | 1.00 | | 0.42 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 480 | 614 | 611 | 484 | 0 | 564 | 336 | 755 | 733 | 274 | 735 | 761 |
| V/C Ratio(X) | 0.42 | 0.32 | 0.10 | 0.31 | 0.00 | 0.41 | 0.34 | 0.57 | 0.57 | 0.07 | 0.56 | 0.18 |
| Avail Cap(c_a), veh/h | 525 | 614 | 611 | 562 | 0 | 564 | 475 | 755 | 733 | 442 | 735 | 761 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.0 | 25.2 | 19.6 | 20.7 | 0.0 | 27.2 | 18.0 | 21.7 | 21.7 | 18.2 | 24.5 | 14.3 |
| Incr Delay (d2), s/veh | 0.2 | 1.4 | 0.3 | 0.1 | 0.0 | 2.2 | 0.2 | 3.1 | 3.2 | 0.0 | 3.1 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.6 | 4.4 | 1.2 | 2.7 | 0.0 | 5.3 | 1.8 | 9.6 | 9.4 | 0.3 | 12.0 | 2.2 |
| LnGrp Delay(d),s/veh | 20.3 | 26.6 | 19.9 | 20.9 | 0.0 | 29.4 | 18.2 | 24.8 | 24.9 | 18.2 | 32.0 | 14.8 |
| LnGrp LOS | C | C | B | C | | C | B | C | C | B | C | B |
| Approach Vol, veh/h | | 463 | | | 380 | | | 963 | | | 570 | |
| Approach Delay, s/veh | | 22.9 | | | 26.0 | | | 24.1 | | | 27.3 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phs Duration (G+Y+Rc), s | 10.6 | 36.9 | 8.8 | 43.8 | 12.5 | 35.0 | 5.6 | 47.0 |
| Change Period (Y+Rc), s | 3.0 | 3.9 | 3.0 | * 4.3 | 3.0 | 3.9 | 3.0 | 4.3 |
| Max Green Setting (Gmax), s | 12.0 | 31.1 | 12.0 | * 31 | 12.0 | 31.1 | 12.0 | 30.7 |
| Max Q Clear Time (g_c+I1), s | 7.7 | 10.0 | 5.7 | 19.2 | 9.4 | 12.0 | 2.7 | 20.4 |
| Green Ext Time (p_c), s | 0.1 | 1.3 | 0.1 | 1.6 | 0.1 | 1.2 | 0.0 | 2.8 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 24.9 |
| HCM 2010 LOS | C |

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



## HCM 2010 Signalized Intersection Summary
## 1: Petaluma Hill Rd & Kawana Springs Rd

03/12/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 150 | 53 | 102 | 159 | 42 | 86 | 330 | 75 | 44 | 377 | 173 |
| Future Volume (veh/h) | 188 | 150 | 53 | 102 | 159 | 42 | 86 | 330 | 75 | 44 | 377 | 173 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 0.97 | 0.99 | | 0.98 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 188 | 150 | 29 | 102 | 159 | 39 | 86 | 330 | 68 | 44 | 377 | 90 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 459 | 376 | 456 | 485 | 250 | 61 | 400 | 978 | 199 | 502 | 567 | 656 |
| Arrive On Green | 0.12 | 0.20 | 0.20 | 0.10 | 0.18 | 0.18 | 0.09 | 0.32 | 0.32 | 0.06 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 1436 | 352 | 1774 | 2919 | 593 | 1774 | 1863 | 1520 |
| Grp Volume(v), veh/h | 188 | 150 | 29 | 102 | 0 | 198 | 86 | 198 | 200 | 44 | 377 | 90 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 0 | 1788 | 1774 | 1770 | 1742 | 1774 | 1863 | 1520 |
| Q Serve(g_s), s | 3.6 | 3.0 | 0.6 | 1.9 | 0.0 | 4.5 | 1.4 | 3.8 | 3.9 | 0.7 | 7.9 | 1.6 |
| Cycle Q Clear(g_c), s | 3.6 | 3.0 | 0.6 | 1.9 | 0.0 | 4.5 | 1.4 | 3.8 | 3.9 | 0.7 | 7.9 | 1.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.20 | 1.00 | | 0.34 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 459 | 376 | 456 | 485 | 0 | 312 | 400 | 593 | 584 | 502 | 567 | 656 |
| V/C Ratio(X) | 0.41 | 0.40 | 0.06 | 0.21 | 0.00 | 0.63 | 0.22 | 0.33 | 0.34 | 0.09 | 0.67 | 0.14 |
| Avail Cap(c_a), veh/h | 943 | 900 | 905 | 813 | 0 | 659 | 747 | 1853 | 1824 | 877 | 1967 | 1800 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.3 | 16.4 | 12.3 | 13.6 | 0.0 | 18.2 | 10.4 | 11.4 | 11.4 | 9.7 | 14.5 | 8.0 |
| Incr Delay (d2), s/veh | 0.2 | 0.7 | 0.1 | 0.1 | 0.0 | 2.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.7 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 1.7 | 0.3 | 1.0 | 0.0 | 2.6 | 0.7 | 1.9 | 1.9 | 0.4 | 7.1 | 0.7 |
| LnGrp Delay(d),s/veh | 13.5 | 17.1 | 12.3 | 13.7 | 0.0 | 20.3 | 10.5 | 11.5 | 11.5 | 9.7 | 24.7 | 8.0 |
| LnGrp LOS | B | B | B | B | | C | B | B | B | A | C | A |
| Approach Vol, veh/h | | 367 | | | 300 | | | 484 | | | 511 | |
| Approach Delay, s/veh | | 14.9 | | | 18.0 | | | 11.3 | | | 20.4 | |
| Approach LOS | | B | | | B | | | B | | | C | |

| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phs Duration (G+Y+Rc), s | 7.3 | 12.8 | 6.9 | 16.7 | 8.4 | 11.6 | 5.5 | 18.1 |
| Change Period (Y+Rc), s | 3.0 | 3.9 | 3.0 | * 4.3 | 3.0 | 3.9 | 3.0 | 4.3 |
| Max Green Setting (Gmax), s | 12.0 | 21.1 | 12.0 | * 46 | 17.0 | 16.1 | 12.0 | 45.7 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 5.0 | 3.4 | 9.9 | 5.6 | 6.5 | 2.7 | 5.9 |
| Green Ext Time (p_c), s | 0.1 | 0.7 | 0.1 | 1.7 | 0.2 | 0.7 | 0.0 | 1.6 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 16.1 |
| HCM 2010 LOS | B |

Notes

## HCM 2010 Signalized Intersection Summary
## 1: Petaluma Hill Rd & Kawana Springs Rd

03/05/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 226 | 435 | 132 | 174 | 338 | 39 | 137 | 678 | 311 | 30 | 415 | 365 |
| Future Volume (veh/h) | 226 | 435 | 132 | 174 | 338 | 39 | 137 | 678 | 311 | 30 | 415 | 365 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 226 | 435 | 79 | 174 | 338 | 35 | 137 | 678 | 292 | 30 | 415 | 238 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 392 | 614 | 622 | 335 | 515 | 53 | 315 | 978 | 421 | 233 | 705 | 750 |
| Arrive On Green | 0.10 | 0.33 | 0.33 | 0.09 | 0.31 | 0.31 | 0.06 | 0.41 | 0.41 | 0.03 | 0.38 | 0.38 |
| Sat Flow, veh/h | 1774 | 1863 | 1578 | 1774 | 1655 | 171 | 1774 | 2394 | 1031 | 1774 | 1863 | 1546 |
| Grp Volume(v), veh/h | 226 | 435 | 79 | 174 | 0 | 373 | 137 | 501 | 469 | 30 | 415 | 238 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1578 | 1774 | 0 | 1827 | 1774 | 1770 | 1655 | 1774 | 1863 | 1546 |
| Q Serve(g_s), s | 8.4 | 20.4 | 3.2 | 6.6 | 0.0 | 17.7 | 4.5 | 23.4 | 23.4 | 1.0 | 17.8 | 9.4 |
| Cycle Q Clear(g_c), s | 8.4 | 20.4 | 3.2 | 6.6 | 0.0 | 17.7 | 4.5 | 23.4 | 23.4 | 1.0 | 17.8 | 9.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.09 | 1.00 | | 0.62 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 392 | 614 | 622 | 335 | 0 | 568 | 315 | 723 | 676 | 233 | 705 | 750 |
| V/C Ratio(X) | 0.58 | 0.71 | 0.13 | 0.52 | 0.00 | 0.66 | 0.43 | 0.69 | 0.69 | 0.13 | 0.59 | 0.32 |
| Avail Cap(c_a), veh/h | 419 | 614 | 622 | 396 | 0 | 568 | 440 | 723 | 676 | 386 | 705 | 750 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.2 | 29.3 | 19.3 | 22.3 | 0.0 | 29.8 | 19.0 | 24.4 | 24.4 | 19.8 | 25.9 | 15.8 |
| Incr Delay (d2), s/veh | 1.0 | 6.8 | 0.4 | 0.5 | 0.0 | 5.8 | 0.4 | 5.4 | 5.8 | 0.1 | 3.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.1 | 11.7 | 1.5 | 3.2 | 0.0 | 9.8 | 2.2 | 12.5 | 11.8 | 0.5 | 12.5 | 4.2 |
| LnGrp Delay(d),s/veh | 22.2 | 36.1 | 19.7 | 22.8 | 0.0 | 35.7 | 19.3 | 29.8 | 30.2 | 19.8 | 34.6 | 16.9 |
| LnGrp LOS | C | D | B | C | | D | B | C | C | B | C | B |
| Approach Vol, veh/h | | 740 | | | 547 | | | 1107 | | | 683 | |
| Approach Delay, s/veh | | 30.1 | | | 31.6 | | | 28.7 | | | 27.8 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phs Duration (G+Y+Rc), s | 11.6 | 36.9 | 9.4 | 42.1 | 13.4 | 35.0 | 6.4 | 45.2 |
| Change Period (Y+Rc), s | 3.0 | 3.9 | 3.0 | * 4.3 | 3.0 | 3.9 | 3.0 | 4.3 |
| Max Green Setting (Gmax), s | 12.0 | 31.1 | 12.0 | * 31 | 12.0 | 31.1 | 12.0 | 30.7 |
| Max Q Clear Time (g_c+I1), s | 8.6 | 22.4 | 6.5 | 19.8 | 10.4 | 19.7 | 3.0 | 25.4 |
| Green Ext Time (p_c), s | 0.1 | 2.0 | 0.1 | 1.7 | 0.1 | 1.7 | 0.0 | 2.2 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 29.3 |
| HCM 2010 LOS | C |

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



## HCM 2010 Signalized Intersection Summary
## 1: Petaluma Hill Rd & Kawana Springs Rd

03/05/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 241 | 182 | 68 | 120 | 193 | 33 | 110 | 422 | 86 | 36 | 483 | 221 |
| Future Volume (veh/h) | 241 | 182 | 68 | 120 | 193 | 33 | 110 | 422 | 86 | 36 | 483 | 221 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 241 | 182 | 44 | 120 | 193 | 30 | 110 | 422 | 79 | 36 | 483 | 138 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 443 | 415 | 490 | 449 | 273 | 42 | 348 | 1149 | 213 | 464 | 644 | 748 |
| Arrive On Green | 0.14 | 0.22 | 0.22 | 0.09 | 0.18 | 0.18 | 0.09 | 0.37 | 0.37 | 0.05 | 0.33 | 0.33 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 1567 | 244 | 1774 | 2969 | 551 | 1774 | 1863 | 1524 |
| Grp Volume(v), veh/h | 241 | 182 | 44 | 120 | 0 | 223 | 110 | 250 | 251 | 36 | 483 | 138 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 0 | 1811 | 1774 | 1770 | 1751 | 1774 | 1863 | 1524 |
| Q Serve(g_s), s | 5.5 | 4.5 | 1.1 | 2.8 | 0.0 | 6.2 | 2.0 | 5.5 | 5.6 | 0.7 | 12.6 | 2.8 |
| Cycle Q Clear(g_c), s | 5.5 | 4.5 | 1.1 | 2.8 | 0.0 | 6.2 | 2.0 | 5.5 | 5.6 | 0.7 | 12.6 | 2.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.13 | 1.00 | | 0.31 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 443 | 415 | 490 | 449 | 0 | 315 | 348 | 685 | 678 | 464 | 644 | 748 |
| V/C Ratio(X) | 0.54 | 0.44 | 0.09 | 0.27 | 0.00 | 0.71 | 0.32 | 0.37 | 0.37 | 0.08 | 0.75 | 0.18 |
| Avail Cap(c_a), veh/h | 768 | 734 | 766 | 693 | 0 | 545 | 605 | 1510 | 1495 | 769 | 1604 | 1535 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.3 | 19.4 | 14.2 | 16.9 | 0.0 | 22.5 | 12.0 | 12.3 | 12.3 | 10.7 | 17.1 | 8.2 |
| Incr Delay (d2), s/veh | 0.4 | 0.7 | 0.1 | 0.1 | 0.0 | 2.9 | 0.2 | 0.1 | 0.1 | 0.0 | 0.7 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.9 | 2.5 | 0.5 | 1.5 | 0.0 | 3.6 | 1.0 | 2.8 | 2.8 | 0.3 | 10.2 | 1.2 |
| LnGrp Delay(d),s/veh | 15.7 | 20.1 | 14.3 | 17.0 | 0.0 | 25.4 | 12.2 | 12.4 | 12.5 | 10.8 | 27.8 | 8.2 |
| LnGrp LOS | B | C | B | B | | C | B | B | B | B | C | A |
| Approach Vol, veh/h | | 467 | | | 343 | | | 611 | | | 657 | |
| Approach Delay, s/veh | | 17.3 | | | 22.5 | | | 12.4 | | | 22.7 | |
| Approach LOS | | B | | | C | | | B | | | C | |

| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phs Duration (G+Y+Rc), s | 8.0 | 15.9 | 7.8 | 21.8 | 10.5 | 13.4 | 5.5 | 24.1 |
| Change Period (Y+Rc), s | 3.0 | 3.9 | 3.0 | * 4.3 | 3.0 | 3.9 | 3.0 | 4.3 |
| Max Green Setting (Gmax), s | 12.0 | 21.1 | 12.0 | * 46 | 17.0 | 16.1 | 12.0 | 45.7 |
| Max Q Clear Time (g_c+I1), s | 4.8 | 6.5 | 4.0 | 14.6 | 7.5 | 8.2 | 2.7 | 7.6 |
| Green Ext Time (p_c), s | 0.1 | 0.9 | 0.1 | 2.3 | 0.2 | 0.7 | 0.0 | 2.1 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 18.4 |
| HCM 2010 LOS | B |

Notes

## HCM 2010 Signalized Intersection Summary
## 1: Petaluma Hill Rd & Kawana Springs Rd

03/12/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 226 | 437 | 132 | 176 | 340 | 44 | 137 | 678 | 313 | 34 | 415 | 365 |
| Future Volume (veh/h) | 226 | 437 | 132 | 176 | 340 | 44 | 137 | 678 | 313 | 34 | 415 | 365 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 226 | 437 | 79 | 176 | 340 | 40 | 137 | 678 | 294 | 34 | 415 | 238 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 386 | 613 | 621 | 334 | 507 | 60 | 315 | 969 | 420 | 235 | 704 | 750 |
| Arrive On Green | 0.10 | 0.33 | 0.33 | 0.09 | 0.31 | 0.31 | 0.06 | 0.41 | 0.41 | 0.04 | 0.38 | 0.38 |
| Sat Flow, veh/h | 1774 | 1863 | 1578 | 1774 | 1631 | 192 | 1774 | 2388 | 1036 | 1774 | 1863 | 1546 |
| Grp Volume(v), veh/h | 226 | 437 | 79 | 176 | 0 | 380 | 137 | 502 | 470 | 34 | 415 | 238 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1578 | 1774 | 0 | 1823 | 1774 | 1770 | 1654 | 1774 | 1863 | 1546 |
| Q Serve(g_s), s | 8.4 | 20.6 | 3.2 | 6.6 | 0.0 | 18.1 | 4.5 | 23.6 | 23.6 | 1.1 | 17.8 | 9.4 |
| Cycle Q Clear(g_c), s | 8.4 | 20.6 | 3.2 | 6.6 | 0.0 | 18.1 | 4.5 | 23.6 | 23.6 | 1.1 | 17.8 | 9.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.63 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 386 | 613 | 621 | 334 | 0 | 567 | 315 | 718 | 671 | 235 | 704 | 750 |
| V/C Ratio(X) | 0.59 | 0.71 | 0.13 | 0.53 | 0.00 | 0.67 | 0.43 | 0.70 | 0.70 | 0.14 | 0.59 | 0.32 |
| Avail Cap(c_a), veh/h | 414 | 613 | 621 | 394 | 0 | 567 | 440 | 718 | 671 | 383 | 704 | 750 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.4 | 29.4 | 19.4 | 22.4 | 0.0 | 30.0 | 19.0 | 24.7 | 24.7 | 19.8 | 25.9 | 15.8 |
| Incr Delay (d2), s/veh | 1.1 | 6.9 | 0.4 | 0.5 | 0.0 | 6.2 | 0.4 | 5.6 | 6.0 | 0.1 | 3.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.1 | 11.7 | 1.5 | 3.2 | 0.0 | 10.1 | 2.2 | 12.6 | 11.8 | 0.6 | 12.5 | 4.2 |
| LnGrp Delay(d),s/veh | 22.4 | 36.3 | 19.8 | 22.8 | 0.0 | 36.2 | 19.4 | 30.3 | 30.6 | 19.9 | 34.6 | 16.9 |
| LnGrp LOS | C | D | B | C | | D | B | C | C | B | C | B |
| Approach Vol, veh/h | | 742 | | | 556 | | | 1109 | | | 687 | |
| Approach Delay, s/veh | | 30.3 | | | 32.0 | | | 29.1 | | | 27.8 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phs Duration (G+Y+Rc), s | 11.6 | 36.8 | 9.4 | 42.1 | 13.5 | 35.0 | 6.7 | 44.9 |
| Change Period (Y+Rc), s | 3.0 | 3.9 | 3.0 | * 4.3 | 3.0 | 3.9 | 3.0 | 4.3 |
| Max Green Setting (Gmax), s | 12.0 | 31.1 | 12.0 | * 31 | 12.0 | 31.1 | 12.0 | 30.7 |
| Max Q Clear Time (g_c+I1), s | 8.6 | 22.6 | 6.5 | 19.8 | 10.4 | 20.1 | 3.1 | 25.6 |
| Green Ext Time (p_c), s | 0.1 | 2.0 | 0.1 | 1.7 | 0.1 | 1.7 | 0.0 | 2.1 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 29.6 |
| HCM 2010 LOS | C |

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



## HCM 2010 Signalized Intersection Summary
## 1: Petaluma Hill Rd & Kawana Springs Rd

03/12/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 241 | 190 | 68 | 128 | 201 | 49 | 110 | 422 | 94 | 52 | 483 | 221 |
| Future Volume (veh/h) | 241 | 190 | 68 | 128 | 201 | 49 | 110 | 422 | 94 | 52 | 483 | 221 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 1.00 | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 241 | 190 | 44 | 128 | 201 | 46 | 110 | 422 | 87 | 52 | 483 | 138 |
| Adj No. of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 432 | 432 | 502 | 453 | 271 | 62 | 340 | 1081 | 221 | 462 | 640 | 742 |
| Arrive On Green | 0.14 | 0.23 | 0.23 | 0.09 | 0.19 | 0.19 | 0.09 | 0.35 | 0.35 | 0.06 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1774 | 1863 | 1581 | 1774 | 1458 | 334 | 1774 | 2916 | 596 | 1774 | 1863 | 1524 |
| Grp Volume(v), veh/h | 241 | 190 | 44 | 128 | 0 | 247 | 110 | 255 | 254 | 52 | 483 | 138 |
| Grp Sat Flow(s),veh/h/ln | 1774 | 1863 | 1581 | 1774 | 0 | 1792 | 1774 | 1770 | 1742 | 1774 | 1863 | 1524 |
| Q Serve(g_s), s | 5.6 | 4.8 | 1.1 | 3.1 | 0.0 | 7.1 | 2.1 | 6.0 | 6.1 | 1.0 | 13.0 | 2.9 |
| Cycle Q Clear(g_c), s | 5.6 | 4.8 | 1.1 | 3.1 | 0.0 | 7.1 | 2.1 | 6.0 | 6.1 | 1.0 | 13.0 | 2.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.19 | 1.00 | | 0.34 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 432 | 432 | 502 | 453 | 0 | 333 | 340 | 656 | 646 | 462 | 640 | 742 |
| V/C Ratio(X) | 0.56 | 0.44 | 0.09 | 0.28 | 0.00 | 0.74 | 0.32 | 0.39 | 0.39 | 0.11 | 0.75 | 0.19 |
| Avail Cap(c_a), veh/h | 747 | 715 | 748 | 686 | 0 | 525 | 589 | 1472 | 1449 | 735 | 1563 | 1498 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.5 | 19.5 | 14.3 | 16.8 | 0.0 | 22.8 | 12.7 | 13.4 | 13.4 | 10.8 | 17.6 | 8.5 |
| Incr Delay (d2), s/veh | 0.4 | 0.7 | 0.1 | 0.1 | 0.0 | 3.3 | 0.2 | 0.1 | 0.1 | 0.0 | 0.7 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.0 | 2.7 | 0.5 | 1.6 | 0.0 | 4.1 | 1.1 | 3.0 | 3.0 | 0.5 | 10.4 | 1.2 |
| LnGrp Delay(d),s/veh | 15.9 | 20.2 | 14.4 | 16.9 | 0.0 | 26.1 | 12.9 | 13.5 | 13.5 | 10.9 | 28.6 | 8.6 |
| LnGrp LOS | B | C | B | B | | C | B | B | B | B | C | A |
| Approach Vol, veh/h | | 475 | | | 375 | | | 619 | | | 673 | |
| Approach Delay, s/veh | | 17.5 | | | 23.0 | | | 13.4 | | | 23.1 | |
| Approach LOS | | B | | | C | | | B | | | C | |

| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phs Duration (G+Y+Rc), s | 8.1 | 16.8 | 7.9 | 22.2 | 10.6 | 14.3 | 6.3 | 23.7 |
| Change Period (Y+Rc), s | 3.0 | 3.9 | 3.0 | * 4.3 | 3.0 | 3.9 | 3.0 | 4.3 |
| Max Green Setting (Gmax), s | 12.0 | 21.1 | 12.0 | * 46 | 17.0 | 16.1 | 12.0 | 45.7 |
| Max Q Clear Time (g_c+I1), s | 5.1 | 6.8 | 4.1 | 15.0 | 7.6 | 9.1 | 3.0 | 8.1 |
| Green Ext Time (p_c), s | 0.1 | 1.0 | 0.1 | 2.3 | 0.2 | 0.7 | 0.0 | 2.1 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 19.0 |
| HCM 2010 LOS | B |

Notes

# APPENDIX C-2
# PARKING ASSESSMENT

April 9, 2018

Mr. Will Burns, AICP
David J. Powers & Associates, Inc.
1611 Telegraph Avenue, Ste. 1002
Oakland, CA 94612

# Kawana Springs Community Park Parking Assessment

Dear Mr. Burns;

As requested, W-Trans has prepared a parking assessment for the proposed Kawana Springs Community Park to be located in southeast Santa Rosa near Taylor Mountain Regional Park. The purpose of this letter is to address how the project may influence parking conditions on surrounding streets.

## Project Description

The proposed project is a city park to be developed on a currently-vacant 19.2-acre site within a residential neighborhood in Santa Rosa. Of the 19.2 acres, approximately 5.5 acres would be used as active park space, with the remainder comprised of passive spaces including oak riparian woodland areas, Colgan Creek, storm water detention areas, and seasonal wetland areas. The western portion of the park would include a small community garden and walking trails, and the main park area to the east of Meda Avenue would include facilities such as picnic areas, a children's play area, a dog park, a bocce ball court, sand volleyball court, pump track, and additional walking paths.

The park would have two off-street parking lots, and users would also be able to utilize existing on-street parking. The community garden in the western part of the site would have seven parking spaces, including one that is handicap accessible. The main parking lot off Kawana Terrace would have 32 parking spaces, including two accessible parking spaces. To deter project visitors as well as visitors to the adjacent Taylor Mountain Regional Park from parking on the northern shoulder of Kawana Terrace along the bank of Kawana Springs Creek, boulders and/or split rail fence would be placed between the proposed Kawana Springs Park dog park and the eastern terminus of street.

## Study Area and Periods

The study area consists of Kawana Springs Road, Kawana Terrace, and Meda Avenue, all of which front the proposed park site in the southeast quadrant of the City of Santa Rosa. Parking surveys were collected in the study area within 500 to 800 feet of the active park space as well as along Kawana Terrace and in the Taylor Mountain Regional Park parking lot. Parking occupancy counts were collected for four hours at about 30-minute intervals on Saturday, December 3, 2016 between 12:00 noon and 4:00 p.m. The day the counts were collected, the recorded temperature was a high of 66 degrees Fahrenheit with sunny conditions and a slight breeze. The observation weekend was also the first clear weekend after two weeks of rainy and cool weather, and many people appeared to be taking advantage of the conditions to walk and bike at Taylor Mountain Regional Park.

Within 500 to 800 feet of the proposed project frontage, the streets were divided into five areas including a total of 32 neighborhood street segments and the Taylor Mountain parking lot. Each of these five sub-areas is summarized below.

- West – This parking area includes Meda Avenue south of Kawana Springs Road, Kawana Terrace west of Meda Avenue, and the neighborhood bounded by those streets. The estimated parking supply in this area was roughly 114 on-street parking spaces.

- Kawana Terrace – This area includes the segment of Kawana Terrace between Meda Avenue and the eastern terminus, which is at the entrance to Taylor Mountain Regional Park. This segment of Kawana Terrace currently has approximately 32 informal parking spaces along the roadside shoulder.
- Northwest – This area includes the neighborhood north of Kawana Springs Road and south of Tokay Street and is bound by Citrine Way to the west and Brookwood Avenue to the east. Within this neighborhood, there are approximately 328 on-street parking spaces
- Northeast – This area includes Kawana Springs Road east of Brookwood Avenue, as well as the residential neighborhood bound by Taylor Mountain Place, Havitur Way and Rudesill Lane. There are approximately 125 on-street parking spaces in this area.
- Taylor Mountain Regional Park Lot – The paid parking lot serving Taylor Mountain Regional Park has an approximate capacity of105 spaces, including spaces along the perimeter fencing and along the ends of the parking bays.

This study area is shown in Figure 1, with the street segments surveyed highlighted in green.


**Figure 1 – Parking Survey Study Area**

## Existing Parking Occupancy

The parking supply for each of the segments was determined using field measurements. On residential streets, one parallel parking space was assumed to require a minimum of 22 feet of curb length. The lengths of curb

sections between streets and driveways, and exclusive of any red zones, was measured and the effective number of parking spaces determined. The total parking supply for the area was determined to be 704 spaces.

Based on the parking surveys, the maximum occupancy in the study area was observed between 2:55 and 3:25 p.m. Of the available 704 spaces in the study area, 207 were occupied during the peak period, translating to a parking occupancy rate of approximately 29 percent. The most heavily-utilized area was the 32 spaces along the shoulder of Kawana Terrace. It is likely that many of these vehicles were associated with drivers visiting Taylor Mountain Regional Park but avoiding the Park's parking fee. The peak surveyed parking occupancy rates are shown for each of the five sub-areas in Figure 2, and copies of the parking surveys are enclosed.


**Figure 2 – Existing Surveyed Peak Parking Occupancy**

## Project Parking Generation

Typically, City parking supply requirements are based on the City's Municipal Code, Chapter 20-36, "Number of Parking Spaces Required." However, for the park land use, the required supply is identified as "determined by the review authority." As such, the following analysis is provided as guidance. It should be noted that since the park is intended to primarily serve nearby neighborhoods, it is expected that many of the park's visitors will choose to either walk or bike to the site instead of drive.

### ITE Parking Generation

The Kawana Springs Park project as proposed would provide a total of 39 off-street parking spaces including three accessible spaces; seven would be located at the community garden and the remainder would be at the Kawana Terrace parking lot. The parking demand was estimated using standard rates published by ITE in *Parking Generation*, 4th Edition, 2010, using the published rates for the City Park land use (ITE LU #411). The independent variable used to estimate parking demand is the park acreage. Because much of this park's acreage would be allocated to passive uses that would generate no user activity (creekside riparian areas, detention basins, wetland areas, etc.), only the 5.5-acres of active uses were used to estimate parking demand.

ITE includes only one data point for a park that has similar characteristics to Kawana Springs Park. The surveyed site was 10 acres and included a playground, picnic area, and hiking trail. The peak observed parking demand on a Saturday was 2.3 spaces per acre. Using this representative rate, the proposed Kawana Springs Park would generate a peak Saturday parking demand of approximately 13 spaces, which is considerably less than the proposed supply. The proposed parking supply and the expected demand are shown in Table 1.

**Table 1 – Saturday Parking Analysis Summary**

| Land Use | Units | Supply (spaces) | ITE Parking Generation | |
|---|---|---|---|---|
| | | | Rate per Acre | Estimated Parking Demand |
| City Park | 5.5 ac | 39 | 2.3 | 13 |

Notes: ac= acre

**Finding** – The park's proposed parking supply is expected to accommodate the anticipated parking demand.

## City-Permitted Events

As proposed, there are no City-planned events that would result in additional parking demand beyond that identified above. The City would, however, issue permits for use of the picnic areas by groups. As proposed there are two group picnic areas which, based on permitted events at other City parks, would be expected to have an attendance of 20 to 50 people per event. A conservative estimate for these city-issued permits would be two per Saturday and one on Sunday every other weekend, March through October[1].

Within Sonoma and Napa County, 2.5 to 2.6 persons per vehicle are the accepted vehicle occupancy estimates for winery-based event trips. While not a directly-related land use, the same vehicle occupancy could be assumed for an event in a park. It would be reasonable to assume that of the 20 to 50 people per permitted event, most would arrive with another person or their family. As such, on a peak Saturday with a combined 100 people simultaneously using the park's picnic areas, about 40 parked vehicles would be expected. Even under the conservative assumption that the on-site parking is 100 percent occupied and these 40 event vehicles would be required to park off-site, the adjacent West and Northwest parking areas closest to the picnic areas had a combined parking surplus of 330 parking spaces. If all 40 vehicles were to park in either the West or Northwest area, the expected occupancy would remain low at 35 and 38 percent, respectively.

**Finding** –The project's onsite parking lots along with adjacent on-street parking areas would have sufficient capacity to accommodate the parking demand resulting from concurrent use of the park's picnic areas by two groups.

## Parking along Kawana Terrace

Development of the park would include the installation of boulders and split rail fence along the north side of Kawana Terrace, eliminating the existing informal parking spaces along the roadside shoulders. It appears that most of this parking activity is associated with visitors of Taylor Mountain Regional Park who are avoiding the payment of parking fees at the Regional Park parking lot. With the proposed Kawana Springs Park project's removal of parking along Kawana Terrace, visitors to the regional park would be expected to either pay for parking at the Taylor Mountain lot, or park at the eastern terminus of Kawana Spring Road and walk to the regional park.

[1] Email communication from Jen Santos (City of Santa Rosa Deputy Director-Parks) to Tali Ashurov (David J. Powers & Associates), February 20, 2018

Based on the counts collected, the Taylor Mountain lot, which had a surplus of 63 spaces, and the northeast area's parking, with a surplus of 100 spaces, would accommodate the existing parking demand of 29 vehicles along Kawana Terrace. If all 29 vehicles were parked in either the Taylor Mountain lot or the Northeast area, the respective parking occupancies would be 68 and 43 percent respectively.

Parking-related issues associated with Taylor Mountain Regional Park are not the responsibility of the City of Santa Rosa to manage or address as part of the Kawana Springs Park project. Nevertheless, based on the above evaluation, it is reasonable to conclude that any changes to Taylor Mountain Regional Park's parking activity that may occur because of the project will not adversely affect parking conditions in surrounding neighborhoods. It should also be noted that, once the Farmers Lane extension is complete in the future, access to the Taylor Mountain Regional Park parking lot will be provided via Farmers Lane instead of Kawana Terrace. This change is likely to reduce both traffic and parking activity associated with Taylor Mountain Regional Park in the neighborhoods surrounding Kawana Springs Park.

**Finding** –The Kawana Springs Park project may shift where some users of Taylor Mountain Regional Park currently park their vehicles, though any such changes are not anticipated to result in adverse parking impacts to surrounding neighborhoods.

## Parking Occupancy with Kawana Springs Park

The existing parking supply within the study area is 704 parking spaces. As part of the project, 32 informal parking spaces along Kawana Terrace would be removed, and 39 on-site spaces would be added. The total parking supply for the area would have a net increase of seven spaces.

During the peak period surveyed, there were 207 parked vehicles. Based on the applied ITE parking generation rates, the park would be expected to have a typical peak demand for 13 parking spaces, resulting in a total area-wide parking demand of 220 spaces, or an overall occupancy of about 31 percent. It should be noted that even if the parking utilization were to double because of seasonal variations or an unusual combination of activities occurring simultaneously in the neighborhood and park, the total parking utilization would still be well below the area's parking capacity.

**Finding** – With development of Kawana Springs Park and its associated improvements, the overall parking occupancy in the surrounding area during the Saturday peak demand period is anticipated to increase from 29 percent to 31 percent. Even with seasonal variations and the potential for multiple neighborhood and park activities to occur at the same time, parking demand would still be well below the available supply.

## Conclusions

- The park's proposed parking supply is expected to accommodate the anticipated parking demand.
- The project's onsite parking lots along with adjacent on-street parking areas would have sufficient capacity to accommodate the parking demand resulting from concurrent use of the park's picnic areas by two groups.
- The Kawana Springs Park project may shift some parking activity associated with Taylor Mountain Regional Park by installing parking deterrents along Kawana Terrace, though any such changes are not anticipated to result in adverse parking impacts to surrounding neighborhoods.
- The parking supply for the area would have net increase of seven parking spaces upon completion of the project.

- With development of Kawana Springs Park and its associated improvements, the overall parking occupancy in the surrounding area during the Saturday peak demand period is anticipated to increase from 29 percent to 31 percent.

- Even with seasonal variations and the potential for multiple neighborhood and park activities to occur at the same time, parking demand would still be well below the available supply.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Briana Byrne, EIT
Assistant Engineer

Zack Matley, AICP
Associate Principal

ZM/bkb/SRO392.L2

Enclosure: Parking Survey Results

## Kawana Springs Park Area Parking Survey Data

Location: Kawana Terrace east
City: Santa Rosa

Day: Saturday
Date: 12/3/2016
Weather: Sunny, 66 degrees

**Parking Summary Statistics**

| | Surveyed Parking Demand | | | Parking Occupancy | | |
|---|---|---|---|---|---|---|
| | On-Street | Taylor Mtn. Lot | Total | On-Street | Taylor Mtn. Lot | Total |
| **12:00 PM** | 134 | 39 | 173 | 22% | 37% | 25% |
| **12:25 PM** | 125 | 34 | 159 | 21% | 32% | 23% |
| **12:55 PM** | 129 | 28 | 157 | 22% | 27% | 22% |
| **1:25 PM** | 129 | 31 | 160 | 22% | 30% | 23% |
| **1:55 PM** | 129 | 33 | 162 | 22% | 31% | 23% |
| **2:25 PM** | 141 | 30 | 171 | 24% | 29% | 24% |
| **2:55 PM** | 165 | 42 | 207 | 28% | 40% | 29% |
| **3:25 PM** | 154 | 34 | 188 | 26% | 32% | 27% |

**Areawide Parking Occupancy Summary**

| | Surveyed Demand | Total Parking Supply | Parking Occupancy |
|---|---|---|---|
| **12:00 PM** | 173 | 704 | 25% |
| **12:25 PM** | 159 | 704 | 23% |
| **12:55 PM** | 157 | 704 | 22% |
| **1:25 PM** | 160 | 704 | 23% |
| **1:55 PM** | 162 | 704 | 23% |
| **2:25 PM** | 171 | 704 | 24% |
| **2:55 PM** | 207 | 704 | 29% |
| **3:25 PM** | 188 | 704 | 27% |

| Time | Segment | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| **12:00 PM** | 2 | 7 | 3 | 4 | 1 | 5 | 23 | 17 | 2 | 5 | 0 |
| **12:25 PM** | 2 | 6 | 3 | 4 | 1 | 4 | 20 | 15 | 2 | 6 | 0 |
| **12:55 PM** | 2 | 6 | 4 | 4 | 1 | 4 | 21 | 17 | 2 | 6 | 0 |
| **1:25 PM** | 2 | 7 | 4 | 5 | 2 | 3 | 20 | 18 | 2 | 8 | 0 |
| **1:55 PM** | 2 | 7 | 4 | 6 | 1 | 6 | 19 | 17 | 2 | 7 | 0 |
| **2:25 PM** | 2 | 7 | 4 | 4 | 1 | 8 | 21 | 19 | 3 | 8 | 0 |
| **2:55 PM** | 2 | 6 | 4 | 5 | 1 | 9 | 28 | 21 | 2 | 9 | 0 |
| **3:25 PM** | 2 | 6 | 4 | 4 | 2 | 8 | 29 | 20 | 2 | 8 | 0 |

| Time | Segment | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| **12:00 PM** | 2 | 2 | 5 | 0 | 4 | 6 | 2 | 7 | 3 | 6 | 1 |
| **12:25 PM** | 2 | 2 | 5 | 0 | 2 | 4 | 2 | 7 | 3 | 5 | 1 |
| **12:55 PM** | 2 | 2 | 5 | 0 | 3 | 3 | 2 | 7 | 3 | 5 | 1 |
| **1:25 PM** | 2 | 2 | 5 | 0 | 2 | 4 | 2 | 6 | 3 | 5 | 2 |
| **1:55 PM** | 2 | 2 | 5 | 0 | 3 | 2 | 2 | 7 | 2 | 5 | 2 |
| **2:25 PM** | 2 | 2 | 5 | 0 | 3 | 2 | 4 | 8 | 2 | 6 | 2 |
| **2:55 PM** | 3 | 2 | 5 | 1 | 4 | 4 | 4 | 9 | 3 | 8 | 3 |
| **3:25 PM** | 3 | 2 | 4 | 0 | 3 | 2 | 4 | 9 | 3 | 7 | 4 |

| Time | Segment | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | Lot 1 |
| **12:00 PM** | 7 | 1 | 0 | 3 | 3 | 6 | 0 | 0 | 4 | 3 | 39 |
| **12:25 PM** | 8 | 1 | 0 | 4 | 5 | 5 | 0 | 0 | 4 | 2 | 34 |
| **12:55 PM** | 8 | 1 | 0 | 4 | 5 | 5 | 0 | 0 | 4 | 2 | 28 |
| **1:25 PM** | 7 | 1 | 0 | 3 | 4 | 4 | 0 | 0 | 4 | 2 | 31 |
| **1:55 PM** | 8 | 1 | 0 | 4 | 3 | 4 | 0 | 0 | 4 | 2 | 33 |
| **2:25 PM** | 9 | 1 | 0 | 4 | 2 | 5 | 0 | 0 | 4 | 3 | 30 |
| **2:55 PM** | 6 | 1 | 1 | 4 | 7 | 5 | 0 | 0 | 6 | 2 | 42 |
| **3:25 PM** | 6 | 1 | 0 | 4 | 4 | 5 | 0 | 0 | 5 | 3 | 34 |