Public Review Draft CEQA INITIAL STUDY PROPOSED MITIGATED NEGATIVE DECLARATION

Silverado Canyon Bridge (No. 55C-0177) Replacement Project INITIAL STUDY NO. No. IP 21-0177

Prepared for:



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List of Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
AB 32	Assembly Bill 32
AB 52	Assembly 52
ACE	Area of Conservation Emphasis
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
ADI	Area of Direct Impacts
ADL	Aerially deposited lead
APE	Area of Potential Effects
APN	Assessors Parcel Number
AQMP	Air Quality Management Plan
ARTO	Arroyo Toad
AULs	Activity and Use Limitations
BMPs	best management practices
BSA	Biological Study Area
C&D	Construction and Demolition
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish & Wildlife
CE	Categorical Exclusion
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFWO	Carlsbad Fish & Wildlife Office
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
СО	Carbon Monoxide
County	County of Orange
CRHS	California Register of Historical Resources
CSS	coastal sage scrub
CWA	Clean Water Act
dBA	A-weighted decibels
DBH	Diameter Breast Height
DU	Dwelling Units
DWR	Department of Water Resources
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
EV	Expected Value
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Map
ft	Feet
GHG	greenhouse gas
GLO	General Land Office

НВР	Highway Bridge Program
НСР	Habitat Conservation Plan
IS/MND	Initial Study with Mitigated Negative Declaration
IPCC	Intergovernmental Panel on Climate Change
LBP	lead-based paint
Lbs	pounds
LOS	level of service
LRFD	Load and Resistance Factor Design
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOX	Oxides of Nitrogen
NPDES	National Pollution Discharge Elimination System
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
OCFCD	Orange County Flood Control District
OCPW	OC Public Works
OHP	Office of Historic Preservation
OHWM	ordinary high water mark
PAHs	pentachlorophenol
PCBs	polychlorinated biphenyls
PM	Particulate Matter
PQS	Professionally Qualified Staff
PRC	Public Resources Code
PSI	Preliminary Site Investigation
RCEM	Roadway Construction Emission Model
RECs	Recognized Environmental Conditions
RWQCB	Regional Water Quality Control Board
SC	Standard Condition
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South-Central Coastal Information Center
SHPO	State Historic Preservation Officer
SOX	Oxides of Sulfur
SSC	species of special concern
SWPPP	Storm Water Pollution Prevention Plan
TACs	toxic air contaminants
TCEs	Temporary construction easements
TCRs	tribal cultural resources
TPD	tons per day
USACE	U.S. Army Corps of Engineers
357.102	5.5

USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOCs	Volatile Organic Compounds
WEF	wildlife exclusion fencing
WPCP	Water Pollution Control Program
WPT	western pond turtle

Chapter 1: Introduction

The purpose of this Initial Study is to evaluate the potentially significant environmental impacts associated with implementing the proposed Project. The Initial Study is organized into the following chapters:

- Chapter 1: Introduction
- Chapter 2: Environmental Determination
- Chapter 3: Project Description
- Chapter 4: Environmental Evaluation
- Chapter 5: Summary of Mitigation Measures and Project Design Features
- Chapter 6: References

1.1 Project Title

Silverado Canyon Bridge (No. 55C-0177) Replacement over Silverado Creek Project

1.2 Lead Agency Name | Address

County of Orange OC Public Works/OC Infrastructure Programs 601 North Ross Street Santa Ana, CA 92701

1.3 Lead Agency Contact Person | Telephone Number | Email

Sam Tieu, PE Civil Engineer

OC Public Works/OC Infrastructure Programs

Telephone: (714) 647-3968

Email: Sam.Tieu@ocpw.ocgov.com

1.4 Project Location

The Silverado Canyon Bridge Project is located on Silverado Canyon Road where the road crosses Silverado Creek with the creek flowing under the road at a sharp angle. Refer to Figure 1: Project Vicinity, Figure 2: Project Location, Figure 3: Project Features, and Figure 4: Site Photos.

1.5 Project Sponsor's Name | Address

County of Orange OC Public Works /OC Infrastructure Programs 601 N. Ross Street, Santa Ana, CA 92703

1.6 General Plan | Specific Plan Designation(s)

The Silverado Canyon Bridge (55C-0177) is located, as defined in the County's General Plan, in Rural Residential (1A) and Suburban Residential (1B) (County of Orange, 2015).

1.7 Zoning District(s)

The Land Use Designation at and near the proposed Project is Rural Residential with 0.025 - 0.5 Dwelling Units (DU) per acre and Suburban Residential with 0.5 - 18 DU per acre (County of Orange, March 2016).

1.8 Description of Project

Orange County Public Works, in cooperation with the California Department of Transportation (Caltrans), is proposing to replace the Silverado Canyon Road Bridge (Bridge No. 55C-0177) over Silverado Creek. The Silverado Canyon Road Bridge is located in Silverado Canyon surrounded by the Cleveland National Forest. The existing bridge is a single span and crosses over Silverado Creek. The proposed Project will replace the existing substandard steel bridge; a portion of the construction funding is provided by the Highway Bridge Program (HBP).

The proposed replacement structure as of date is a single span prestressed, precast concrete voided slab girder bridge. The bridge will be raised approximately three feet to increase hydraulic conveyance. However, the bridge will only be able to pass the approximate 5-year storm event. Raising the bridge higher would greatly impact residents to the east of the bridge. The abutments, similar to the existing bridge, will be set on spread footing foundations. Bridge barriers will be side mounted open metal railing, Type ST-70SM.

The replacement bridge will have 12-foot wide lanes and will include a 4-foot shoulder on the north side and 6-foot shoulder on the south side, for a minimum total barrier to barrier width of 34 feet. There are no nearby pedestrian facilities or future plans to place sidewalks along Silverado Canyon Road, but portions of Silverado Canyon Road have sufficient dirt shoulders to provide room for pedestrians. To keep with the rural setting, there will not be sidewalks on the bridge. Silverado Creek is an intermittent stream that flows west under the existing bridge.

The narrow road and limited right of way requires the replacement structure be placed in the same location as the existing structure. There is no viable detour available. The bridge will be replaced utilizing staged construction with approximately ½ the bridge replaced in each stage. The existing 4 girder bridge allows half the bridge to be removed, supporting the remaining half on two girders. Contractor staging areas are limited. The contractor may stage on the closed portion of the existing road approaches. Additional staging locations may need to be utilized.

Utilities include a waterline attached to the south side of the bridge and overhead telecommunication lines which cross the bridge diagonally. The overhead telecommunication lines will need to be relocated temporarily for construction. The waterline will need to be relocated to the new bridge.

Typical equipment for roadway construction would include heavy construction earthmoving equipment, dump trucks and pavers. Typical bridge construction equipment would include cranes, excavators, rock hammers, generators, and concrete pumps.

Refer to Section 3, Project Description, for a comprehensive discussion of the proposed Project.

1.9 Surrounding Land Uses and Setting

The proposed Project is adjacent to the Cleveland National Forest and within the unincorporated portion of the County of Orange (County). The land use designations at and near the proposed Project site are Rural Residential and Suburban Residential as defined by the Orange County General Plan (County of Orange, 2015). Refer to Section 3.2 for a detailed description of the setting.

1.10 Other public agencies whose approval is required

Table 1 below provides a list of required and anticipated public agency approvals that are associated with the proposed Project.

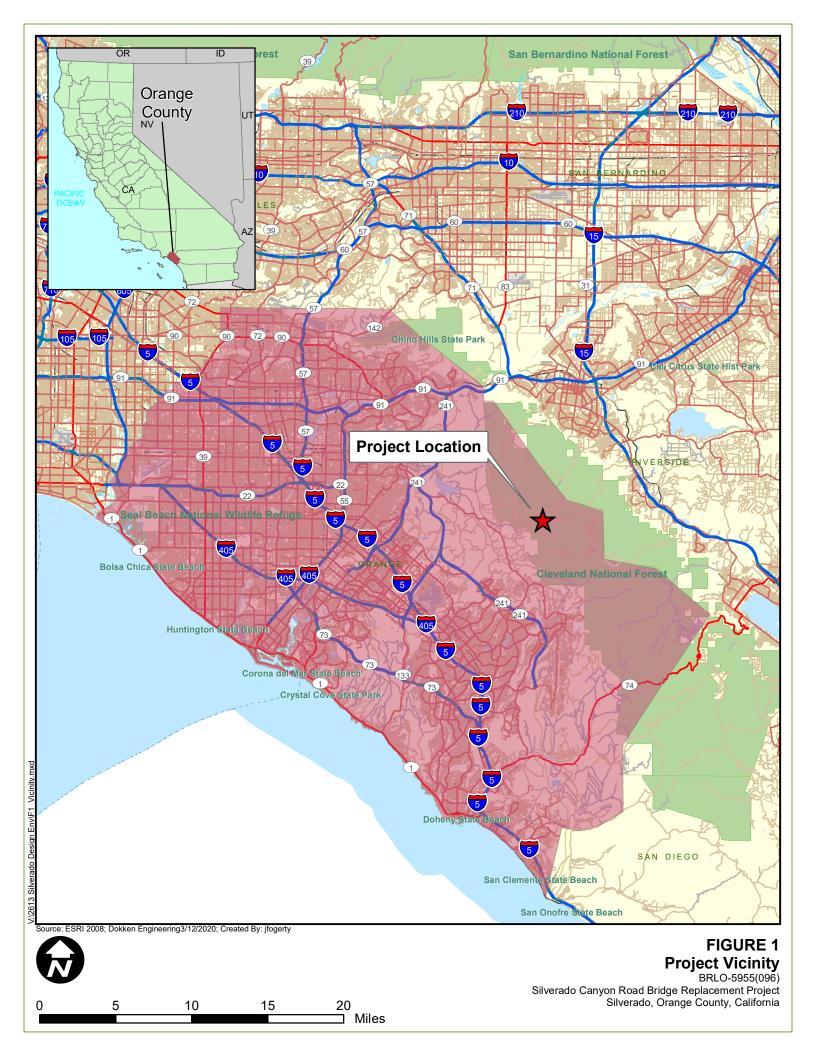
Table 1: Public Agency Approvals

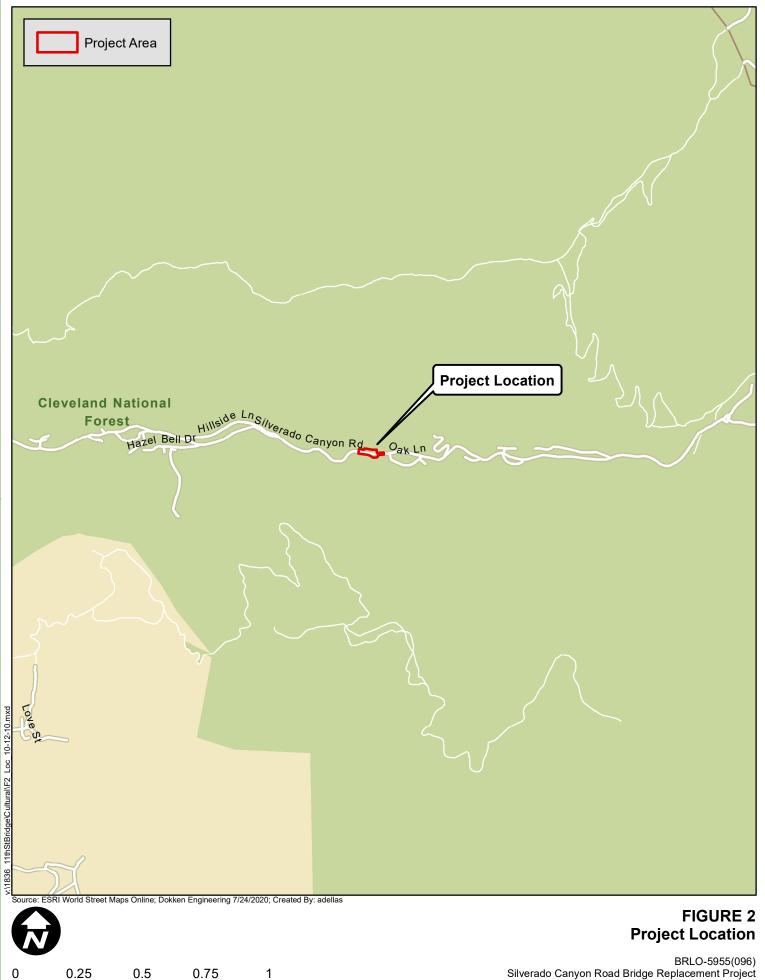
Body	Action
Orange County Board of Supervisors	Adoption of the California Environmental Quality Act (CEQA) Final Initial Study with Mitigated Negative Declaration (IS/MND)
Caltrans District 12	National Environmental Policy Act (NEPA) Categorical Exclusion (CE)
California Department of Fish & Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement
Santa Ana Regional Water Quality Control Board (RWQCB)	Section 401 Water Quality Certification
U.S. Army Corps of Engineers (USACE)	Section 404 Nationwide Permit Authorization

1.11 California Native American consultation

Pursuant to Public Resources Code section 21080.3.1, the County of Orange initiated consultation per Assembly Bill 52 on September 24, 2020 with the following California Native American tribes: Juaneño Band of Mission Indians, San Gabriel Band of Mission Indians, Soboba Band of Luiseño Indians, and Gabrieleño Band of Mission Indians - Kizh Nation. In addition, National Historic Preservation Act (NHPA) Section 106 consultation was initiated on March 13, 2020, NHPA requires agencies to engage and inform federally recognized tribes during the planning and implementation of projects with federal funds. The following tribes were reached out to during Section 106 consultation: Agua Caliente Band of Cahuilla Indians, La Jolla Band of Luiseño Indians, Pala Band of Mission Indians, Pauma and Yuima Reservation, Pechanga Band of Mission Indians, Rincon Band of Missions Indians, San Luis Rey Band of Missions Indians, and Soboba Band of Luiseño Indians.

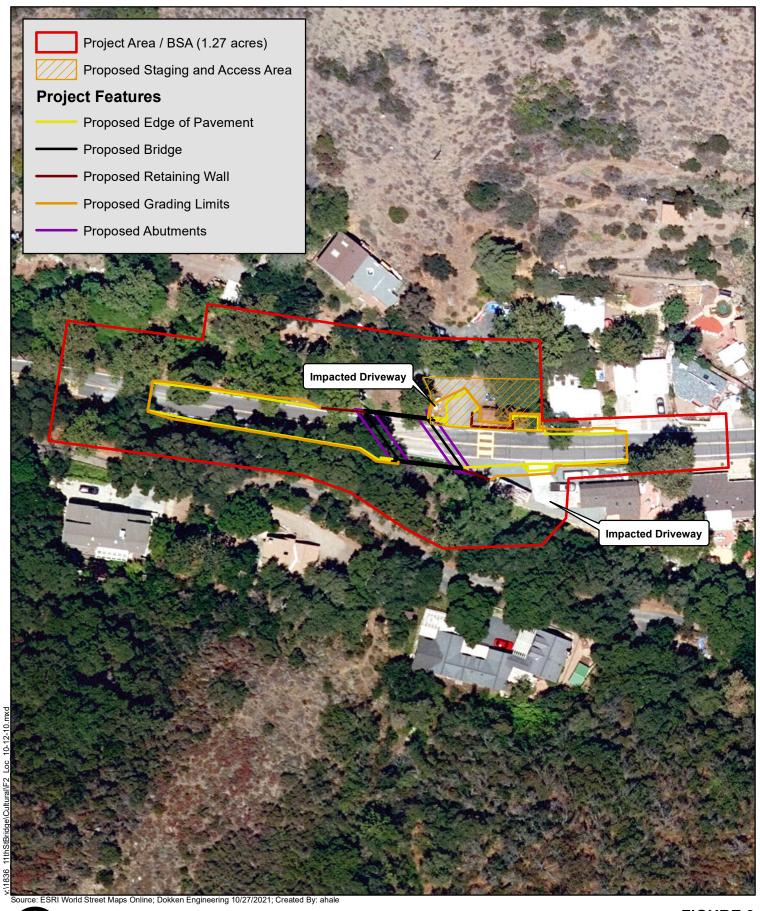
The Gabrieleño Band of Mission Indians - Kizh Nation and Juaneño Band of Mission Indians requested consultation. Refer to Section 4.22 - Tribal Cultural Resources for a detailed description of consultation with those tribes.





☐ Miles

BRLO-5955(096) Silverado Canyon Road Bridge Replacement Project Silverado, Orange County, California



1 inch = 75 feet

75

150

⊐ Feet

FIGURE 3 Project Features

BRLO-5955(096) Silverado Canyon Road Bridge Replacement Project Orange County, California

Figure 4: Site Photos





Chapter 2: Environmental Determination

Based on the analysis conducted in this Initial Study, the County of Orange, OC Public Works, as the Lead Agency, has made the following determination:

Table 2: Environmental Determination

I find that the proposed Project C DECLARATION will be prepared.	OULD NOT have a significant effect on the environment, and a NEGATIVE	
not be a significant effect in this	d Project could have a significant effect on the environment, there will case because revisions in the Project have been made or agreed to by ATED NEGATIVE DECLARATION will be prepared.	\boxtimes
I find that the proposed Pro ENVIRONMENTAL IMPACT REPO	ject MAY have a significant effect on the environment, and an DRT is required.	
unless mitigated" impact on the an earlier document pursuant to measures based on the earlier a	MAY have a "potentially significant impact" or "potentially significant environment, but at least one effect 1) has been adequately analyzed in a applicable legal standards, and 2) has been addressed by mitigation nalysis as described on attached sheets. An ENVIRONMENTAL IMPACT analyze only the effects that remain to be addressed.	
potentially significant effects (DECLARATION pursuant to applic	d Project could have a significant effect on the environment, because all a) have been analyzed adequately in an earlier EIR or NEGATIVE cable standards, and (b) have been avoided or mitigated pursuant to that ATION , including revisions or mitigation measures that are imposed upon rther is required.	
I find that the proposed Project has previously been analyzed as part of an earlier CEQA document (which either mitigated the Project or adopted impacts pursuant to findings) adopted/certified pursuant to the State CEQA Guidelines and the County's adopted Local CEQA Guidelines. The proposed Project is a component of the whole action analyzed in the previously adopted/certified CEQA document.		
either mitigated the Project or ac and County CEQA Guidelines. N	has previously been analyzed as part of an earlier CEQA document (which dopted impacts pursuant to findings) adopted/certified pursuant to State Minor additions and/or clarifications are needed to make the previous yer the Project which are documented in this addendum to the earlier	
either mitigated the Project or ac and County CEQA Guidelines. Ho	Has previously been analyzed as part of an earlier CEQA document (which dopted impacts pursuant to findings) adopted/certified pursuant to State owever, there is important new information and/or substantial changes paration of an additional CEQA document (ND or EIR) pursuant to CEQA gh 15163.	
Signature	 Date	
Printed Name		

Page 8

Silverado Canyon Bridge (No. 55C-0177)	Environmental Determinatio

Chapter 3: Project Description

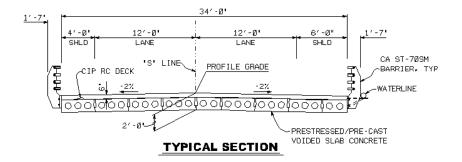
3.1 Introduction

Orange County Public Works, in cooperation with Caltrans, is proposing to replace the Silverado Canyon Road Bridge (Bridge No. 55C-0177) over Silverado Creek. The existing bridge is a single span and crosses over Silverado Creek. The proposed Project will replace the existing substandard steel bridge, with a portion of the construction funding is provided by the HBP.

The proposed replacement structure is a 50′-0″ long single span prestressed, precast concrete voided slab girder bridge. The bridge will be raised approximately three feet to increase hydraulic conveyance. However, the bridge will only be able to pass the approximate 5-year storm event. Raising the bridge higher would greatly impact residents to the east of the bridge, thus a higher bridge is not proposed. The abutments, similar to the existing bridge, will be set on spread footing foundations. Bridge barriers will be side mounted open metal railing, Type ST-70SM.

The replacement bridge will have 12-foot wide lanes and will include a 4-foot shoulder on the north side and 6-foot shoulder on the south side, for a minimum total barrier to barrier width of 34 feet as shown in the image below. There are no nearby pedestrian facilities or future plans to place sidewalks along Silverado Canyon Road, but portions of Silverado Canyon Road have sufficient dirt shoulders to provide room for pedestrians. To keep with the rural setting there will not be sidewalks on the bridge.

Temporary construction easements (TCE) and acquisitions will effect several parcels in the proposed Project area. Total TCEs are under 0.14 of an acre and approximately 0.006 of an acre of permanent acquisitions.



3.2 Environmental Setting and Surrounding Land Uses

The surrounding land uses are described in the following table.

Table 3: Surrounding Land Uses

Direction	Land Use(s)
North	Rural Residential and Cleveland National Forest
East	Cleveland National Forest
West	Rural and Suburban Residential
South	Rural Residential and Cleveland National Forest

Source: OC Public Works, 2015

Project Site Environmental Setting

The Silverado Canyon Bridge Project is located on Silverado Canyon Road where the road crosses Silverado Creek with the creek (Figure 1: Project Vicinity and Figure 2: Project Location). The average elevation of the proposed Project area is 1,545 feet (ft) above mean sea level and is sloped moderately to the south southwest.

Site Vicinity Environmental Setting

In the proposed Project vicinity, annual temperatures range from a high of 76 degrees Fahrenheit to a low of 55 degrees Fahrenheit. The average rainfall is approximately 13.63 inches ((U.S. Climate Data 2021)). The topography is generally flat at the bottom of Silverado Canyon with large sloping California sage scrub hills to the north and south of the proposed Project area. The proposed Project site is located within marine sedimentary and metasedimentary rocks, described as Jurassic shale, sandstone, minor conglomerate, chert, slate, limestone, and minor pyroclastic rocks. The subsurface conditions include coarse-grained, well-graded gravels and silty clay materials

Site Regional Environmental Setting

The proposed Project is in the Peninsular Ranges Geomorphic Province, which is a group of mountain ranges that run from southern California to the southern tip of the Baja California peninsula. This province is characterized by a series of ranges separated by longitudinal valleys, trending northwest to southeast, subparallel to faults branching from the San Andreas Fault. The trend of topography is similar to the Coast Ranges, but the geology is similar to that of the Sierra Nevada with granitic rock intruding the older metamorphic rocks. The Peninsular Ranges extend into lower California and are bound on the east by the Colorado Desert Geomorphic Province and the Transverse Ranges to the north. The Los Angeles Basin and the island group (Santa Catalina, Santa Barbara, San Clemente, and San Nicolas islands), together with the surrounding continental shelf (cut by deep submarine fault troughs), are included in this province (CGS 2002).

3.3 Construction Activities

The new profile that will result from the proposed Project will raise Silverado Canyon Road as high as 10 feet before significant impacts to residential driveways east of the bridge occur. The first driveway is located approximately 80 feet from the east end of the new bridge, limiting the height the bridge can be raised. The western approach will be on a 7.90% grade to maximize the vertical gain. These geometrics prevent the east approach to be conformed back down to existing grade too quickly.

To convey the 100 year flood event under the bridge would require the road to be raised approximately 10 feet, which is unachievable without blocking access to several adjacent homes. The practical height the road can be raised is approximately 3 feet. To meet the 25 mph design speed, the west approach is 182 feet long and the east approach is 143 feet.

The west approach is on a tangent, with a 950-foot radius curve beginning immediately before the bridge, with the road curving to the north. This places the bridge on the curve. Since the bridge is a precast girder bridge with side mounted barrier rails, the bridge deck cannot be curved. Therefore, the 4- and 6-foot shoulders will vary slightly to accommodate the curve.

No driveways exist west of the bridge. Two driveways east of the bridge will be impacted (Figure 3. Project Features). The residence driveway immediately southeast of the bridge (approximately 60 feet) will need to be modified to accommodate the new road grade, and the residential driveway to the northeast, near

the road conform, will be slightly raised. The private road/driveway intersection immediately northeast of the bridge (approximately 20 feet) will be raised to match the new road alignment. A crash cushion will be placed at the end of the bridge barrier. Due to the limited space for driveway access, a QuadGuard crash cushion, which meets 25 mph design speed and is only 9 feet long, will be used.

Primary considerations for constructability include stage construction to maintain access to traffic. There is no viable detour at this location. Since the bridge will be raised and must remain open at all times, the bridge will be constructed in stages, with the south ½ constructed first. The first stage will remove approximately ½ the existing bridge and construct approximately ½ the new bridge. The second stage will then remove and construct the north half of the bridge. The new bridge will be about 3 feet higher than the existing, necessitating shoring along the road. Special considerations will need to be incorporated into the design to maintain driveway access to the resident southeast of the bridge. The private road/driveway northeast of the bridge will continue to operate as is during Stage 1 construction. During Stage 2 construction special considerations may need to be made to route traffic temporarily to a driveway north of the existing shed due to the close proximity of the road/driveway to abutment construction.

Construction is anticipated to be completed within one year. Staging of construction equipment would occur on the gravel area adjacent to the roadway on the north side, just east of the bridge. Equipment would include graders, tractors, backhoes, and an excavator for grading and demolition. Cement mixers, a tractor, backhoe, and several welders will be necessary for construction along with service cranes to swing and lower girders into place.

3.4 Site Improvement Characteristics

• The site plans below (page 15) provide the bridge dimensions and construction stages.

The existing rock wall, as seen in the picture, will be replaced with a Caltrans standard retaining wall Type

7B along the north west approach of the bridge, starting approximately at station 11+55.00. The retaining wall will be approximately 30 feet long, with a maximum design height of 12 feet. The retaining wall will retain fill required to raise the approach by approximately 3 feet to prevent from filling into Silverado Creek. The existing tree at the end of the existing rock wall is expected to be removed. In addition to the other wing walls to be replaced with construction of the new bridge, an additional retaining wall is proposed to minimize grading impacts the existing shed near the north east approach of the creek.



3.5 **Building Characteristics**

Design of the bridge superstructure, abutments, and

foundations will be in conformance with American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Bridge Design Specifications (Customary U.S. Units 8th Edition 2017) with Interims and Caltrans Amendments. The seismic analysis will be based on Caltrans Seismic Design Criteria (April 2019 Version 2.0).

The replacement bridge will utilize a side mounted open railing system, the California ST-70SM railing, to give the replacement bridge a rustic and open feel reminiscent of the existing bridge. For the rural setting

with low traffic and exposure to the public, no bridge lighting or landscaping (other than re-vegetation) is anticipated.

3.6 Infrastructure Characteristics

As described in the Draft Report Hydrologic and Hydraulic Basis of Design dated January 2019, the proposed Project is being analyzed using the 10-year Expected Value (EV) of the Silverado Creek at the proposed Project site. Hydraulic modeling performed by Michael Baker International revealed that the existing bridge does not have enough capacity to pass the 10-year EV. As stated in the Draft Report the Orange County Flood Control District (OCFCD) Design manual minimum freeboard criteria is 1.5 feet above the 100-year water surface elevation for non-leveed channels. In order to meet this criteria, the proposed soffit elevation would need to be raised to a minimum



elevation of 1540.47 feet. The preliminary hydraulics for the existing structure are summarized in Table 4 below.

Table 4: Silverado Canyon Road Bridge Hydraulics Summary

	10-Year EV	100-Year EV	200-Year EV	500-Year EV
Water Surface	1537.03 ft	1539.17 ft	1540.02 ft	1541.04 ft
Elevation	1557.05 10	1559.17 10	1340.02 11	1541.0411

Open bridge rails are anticipated, which will allow surface runoff to flow off the sides of the bridge. Currently surface runoff is collected as it flows along the existing curb and discharges into the creek by overside drains immediately beyond the existing curb. Existing drainage patterns will be maintained along the approach roadway.

Overhead utilities and an underground waterline are located along the existing road alignment. The overhead utilities transition from the south side to the north side of Silverado Canyon road above the existing bridge. These are overhead telecommunication lines. The preliminary road alignment is not in conflict with existing poles, but utility relocations need to be investigated for vertical clearance and construction activity conflicts. If relocation of the overhead telecommunication lines is needed, a utility pole could be added to redirect the crossing of Silverado Canyon Road to the east side of the bridge.

The underground waterline is attached to the south side of the bridge. This line will need to be relocated to the new bridge and reattached underneath the bridge to the south side. The proposed precast bridge is not suited to have the waterline installed within the structure.

3.7 Project Design Features

The replacement bridge will utilize a side mounted open railing system to give the replacement bridge a rustic and open feel. For the rural setting with low traffic and exposure to the public, no bridge light or landscaping is anticipated.

3.8 Offsite Improvements

No offsite improvements will be necessary to complete the proposed Project.

3.9 Project Schedule and Phases

Overall construction is anticipated to take 8 months and estimated to begin in 2023. The bridge will be constructed in stages, with the south ½ constructed first. The first stage will remove approximately ½ the existing bridge and construct approximately ½ the new bridge. The second stage will then remove and construct the north half of the bridge. The new bridge will be about 3 feet higher than the existing bridge, necessitating shoring along the road. Special considerations will need to be incorporated into the design to maintain driveway access to the resident southeast of the bridge. The private road/driveway northeast of the bridge will continue to operate as is during Stage 1 construction. During Stage 2 construction special considerations may need to be made to route traffic temporarily to a driveway north of the existing shed due to the close proximity of the road/driveway to abutment construction.

3.10 Change in Land Use Controls

Existing land use and zoning in and around the proposed Project area will remain the same.

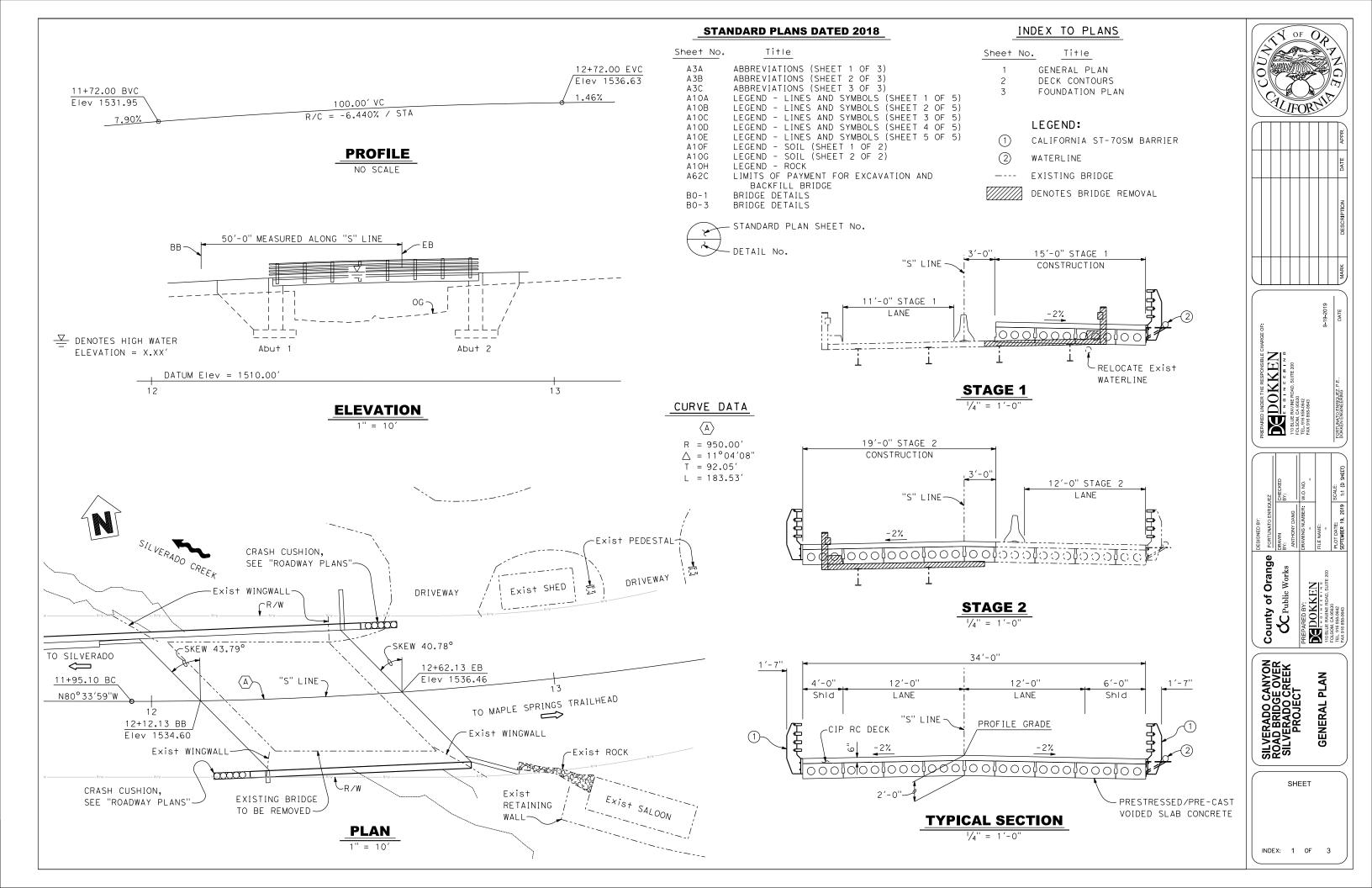
3.11 Related Projects

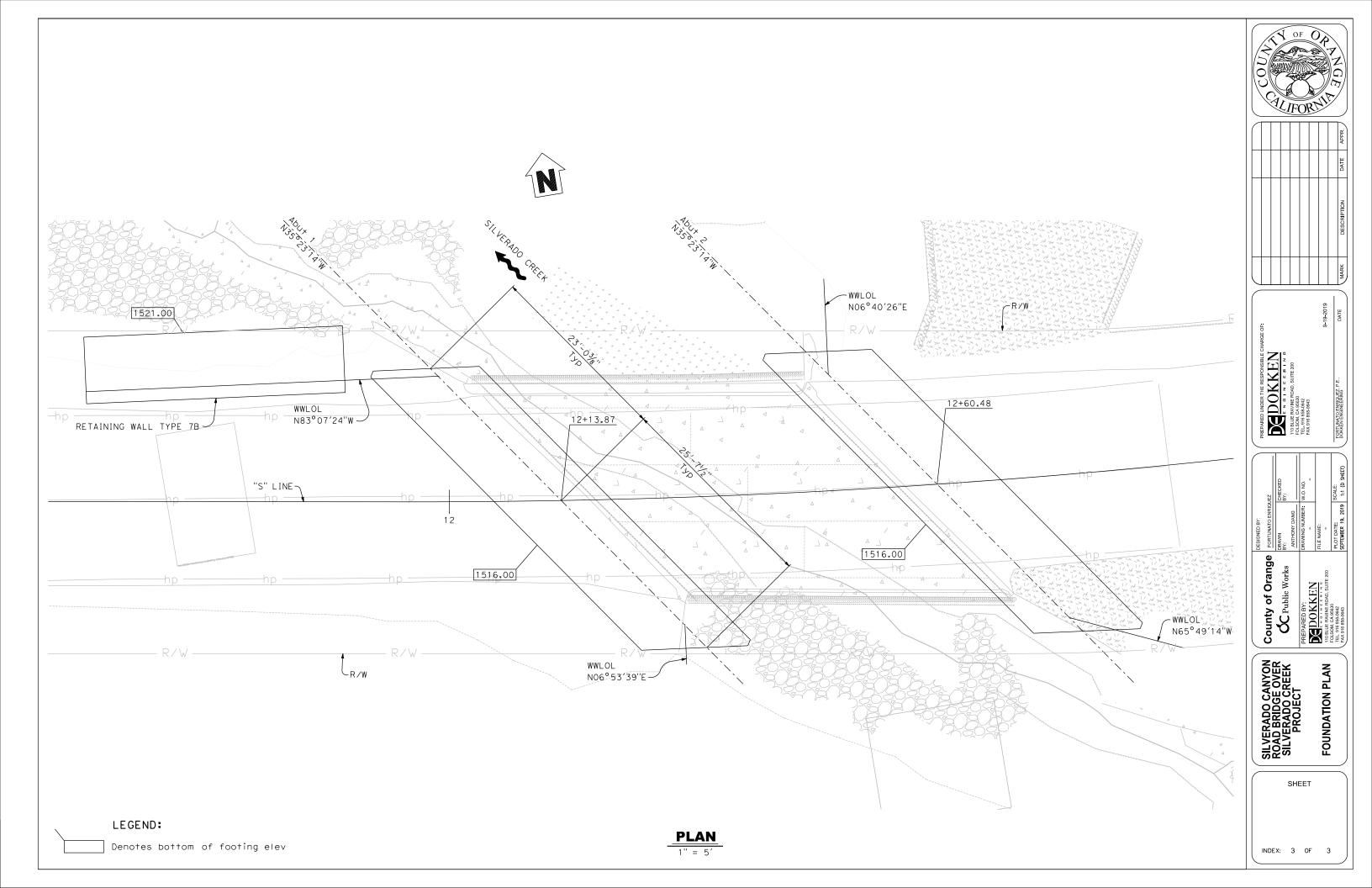
Modjeska Canyon Bridge No. 55C-0172 is an approximately 64-foot long, single span steel girder bridge that the County of Orange is planning to replace with a new bridge. The Modjeska Canyon Bridge proposed Project is approximately 7 miles from the proposed Project (Silverado Canyon Bridge No. 55C-0177). The other two bridges are west of the proposed Project on Silverado Canyon Road; 55C-0174 is in the process of completing environmental documentation and seeking clearance and 55C-0175 has acquired project approval and environmental clearance. Please see Figure 6: Related Projects for a map displaying the location of these projects.

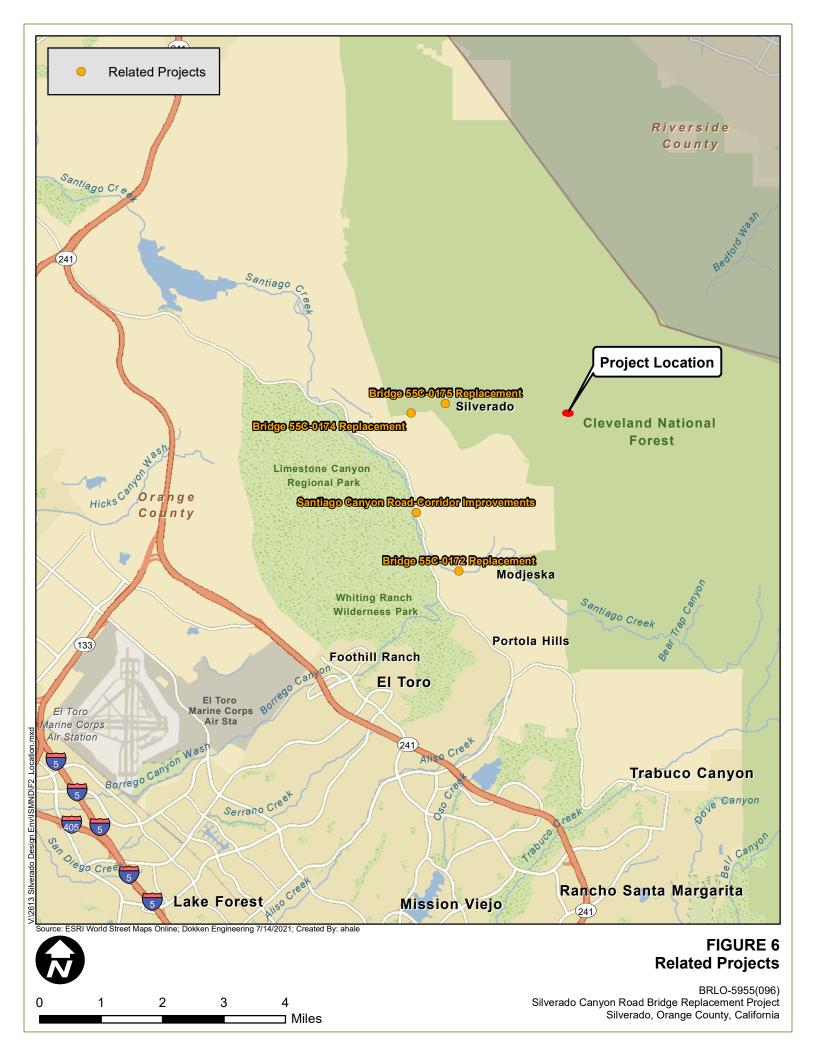
Project Name Land Use Statistical Data Status Modieska Suburban and Constructed in 1935; 64 In the process of acquiring Bridge 55C-0172 **Rural Residential** feet long PA&ED. Anticipated construction year: 2023 Silverado Suburban and Replacement over In the process of acquiring Rural Residential PA&ED. Anticipated Canyon Road Silverado Canyon Creek Bridge 55C-0174 due to structural construction year: 2023 deficiency Silverado Suburban and Replacement over Ladd PA&ED acquired. Anticipated Canyon Road Rural Residential Creek due to structural construction year: 2022 Bridge 55C-0175 deficiency

Table 5: Related Projects

Source: OC Public Works, Infrastructure (2021).







Chapter 4: Environmental Evaluation

4.1 Analysis Methodology

Analysis of potentially significant impacts of each of the environmental factors identified in Table 6 below is based on the proposed Project site environmental setting, Project description, and the Appendix G questions within the CEQA Guidelines. Potentially significant impacts that are reduced below the level of significance identified in the sample questions/thresholds of significance by way of mitigation will detail how the potentially significant impact is reduced. Potentially significant impacts that are unable to be reduced below the applicable level of significance will detain the various mitigation options analyzed and included in the proposed Project and why none would reduce the impact to a less than significant level.

The analysis will consider the whole of the action and include the following:

- Onsite impacts
- Offsite impacts
- Short-term construction impacts
- Long-term operational impacts
- Direct impacts
- Indirect impacts
- Cumulative impacts

4.2 Environmental Factors Potentially Affected

This document incorporates the Environmental Checklist Form from Appendix G of the 2021 CEQA Guidelines as referenced in Section 3.3 of the County of Orange 2020 Local CEQA Procedures Manual.

Table 6 below lists the environmental factors that are evaluated in this document. Environmental factors that are checked contain at least one impact that has been determined to be a "Potentially Significant Impact." Environmental factors unchecked indicate that impacts were determined to have resulted in no impacts, less than significant impacts, or less than significant impacts with mitigation measures or County Standard Conditions of Approval incorporated into the proposed Project.

Table 6: Environmental Factors Potentially Affected

Aesthetics (4.5)	Mineral Resources (4.16)
Agriculture & Forestry Resources (4.6)	Noise (4.17)
Air Quality (4.7)	Population & Housing (4.18)
Biological Resources (4.8)	Public Services (4.19)
Cultural Resources (4.9)	Recreation (4.20)
Energy (4.10)	Transportation (4.21)
Geology and Soils (4.11)	Tribal Cultural Resources (4.22)
Greenhouse Gas Emissions (4.12)	Utilities & Service Systems (4.23)
Hazards & Hazardous Materials (4.13)	Wildfire (4.24)

, , ,	
Hydrology & Water Quality (4.14)	Mandatory Findings (4.25)
Land Use & Planning (4.15)	

Environmental Evaluation

4.3 Thresholds of Significance

Silverado Canvon Bridge (No. 55C-0177)

Thresholds of significance are identifiable quantitative, qualitative or performance level standards for a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by a Lead Agency and compliance with which means the effect will normally be determined to be less than significant (CEQA Guidelines §15064.7(a)).

With the exception of Vehicle Miles Travelled (VMT), the County has not adopted specific thresholds of significance and rather relies upon the specific questions relating to the topical environmental factors listed in Appendix G of the CEQA Guidelines to assist in the determination of whether an environmental effect is a potentially significant impact. The County of Orange Board of Supervisors adopted County VMT guidelines at its November 17, 2020 meeting pursuant to SB743 to include VMT analysis methodology and thresholds.

4.4 Environmental Baseline

To adequately determine the significance of a potential environmental impact, the environmental baseline must be established. CEQA Guidelines Section 15125(a) states in pertinent part that the existing environmental setting will normally constitute the baseline physical conditions that will assist the County in a determining if an impact is significant.

Therefore, the environmental baseline for this proposed Project constitutes the existing physical conditions as they existed at the time that the environmental analysis for the Project commenced, which was in September of 2019.

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

Response to Question a):

No Impact. The proposed Project area is in the unincorporated community of Silverado, Orange County, California. Silverado is primarily a residential use community with concentrated development in the canyon bottoms of the Santa Ana Mountains. The Silverado-Modjeska Specific Plan was created with the purpose of promoting planned development that least disturbs natural contours and vegetation of the landscape and preserves areas of scenic beauty (County of Orange 1977). The Resources Element in the County of Orange General Plan does not specifically identify Silverado Canyon as a scenic vista.

Silverado is at the boundary of the Cleveland National Forest; however, it is not located within the National Forest. As such, the scenic vistas surrounding the proposed Project area include mountains, creeks, trees, and ridges. The new Silverado Canyon Bridge No. 55C-0177 would not affect a scenic vista within the canyon due to the limited exposure and narrow views from within the canyon and the proposed Project

area. Additionally, the narrow road and limited right of way requires the replacement structure be placed in the same location as the existing structure, which would not alter the existing views from or of the Project area. Because there are no scenic vistas in the proposed Project area, and the proposed Project would not impact any scenic vistas, no impacts are anticipated.

Response to Question b):

No Impact. The proposed Project is not anticipated to have any effect on scenic resources since the existing bridge is not a scenic resource and the surrounding narrow, steep hillsides will not be altered by the proposed Project. Also, the narrow road and limited right of way requires the replacement structure be placed in the same location as the existing structure, naturally limiting the proposed Project's potential impacts. Additionally, Silverado Canyon Road is not designated as a State Scenic Highway. Accordingly, no impacts are anticipated.

Response to Question c):

Site Character and Quality

Less than Significant Impact. The proposed Project site is located at the bottom of Silverado Canyon with large sloping California sage scrub hills to the north and south. The replacement bridge will be widened to meet current standards and traffic volumes, however, to keep with the rural setting and surrounding roadway, there will not be sidewalks on the bridge. Approximately 10 trees will be trimmed and removed near the bridge to accommodate the proposed Project; however, the proposed Project would not have any long-term impacts to the visual character of the area, as the trimmed trees are expected to grow back. Best management practices (BMPs), such as protecting existing vegetation to prevent erosion, will be employed for Project construction to ensure that any modifications required as part of Project construction are minimized and/or avoided to the extent practicable. Additionally, biological avoidance and minimization measures (see section 4.8 Biological Resources for more information) will be implemented to minimize impacts to the surrounding habitat. Impacts to the site character and quality would be less than significant.

Surrounding Character and Quality

Less than Significant Impact. The proposed Project site is within a narrow canyon with steep hillsides and lush, contiguous vegetation on both north and south slopes, but denser on the north facing slope. Approaching from the west, the road is surrounded by vegetation with some houses coming into view as the small bridge is approached and travelled past. The replacement bridge will continue along the current road alignment and construction will only occur within the proposed Project footprint. Since construction will not occur outside the proposed Project footprint, impacts to the surrounding character and quality would be less than significant.

Response to Question d):

No Impact. The new bridge and proposed Project features would not create a new source of glare nor affect day or nighttime views in the area. For the rural setting with low traffic and exposure to the public, no bridge light or landscaping is anticipated. No new light would occur as a result of the new bridge. Night work is not anticipated during construction, thereby minimizing the amount of light needed during Project

construction. Because no bridge light is included in the proposed Project design, no permanent source of light is part of the Project. Therefore, no impacts are anticipated.

4.6 Agriculture and Forestry Resources	Potentially Significant Impact	Less than Significant With Mitigation	Less than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:		Incorporated		
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				

c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51004(g))?		
d)	Result in the loss of forest land or conversion of forest land to non-forest use?		
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?		

Affected Environment

The proposed Project's land use designation is Suburban Residential with Rural Residential surrounding the immediate area. The Cleveland National Forest surrounds the residential uses to the north, south, and east of the proposed Project. Additionally, the California Department of Conservation's California Important Farmland Finder identified the proposed Project area as "Other Land".

Response to Question a):

No Impact. The California Department of Conservation's California Important Farmland Finder identified the proposed Project area as "Other Land" (CDC 2016) - that is, neither farmland nor important farmland and the Project is not near land identified as Important Farmland. As noted above, the proposed Project area is not zoned as agricultural. Therefore, the proposed bridge replacement will have no impacts associated with conversion of Important Farmlands, as it involves replacing an existing bridge within an existing road right of way and there is no Prime, Unique, or Farmland of Statewide Importance within the proposed Project vicinity.

Response to Question b):

No Impact. The proposed bridge replacement would not conflict with any agricultural zoning or a Williamson Act contract. The closest parcels identified under a Williamson Act are approximately 9 miles southeast of the proposed Project area. Due to the distance between the parcels and proposed Project area, the Project will not impact these parcels. Additionally, as noted above, the proposed Project area is not zoned as agricultural. Accordingly, the Project will not have any impact on agricultural zoning or a Williamson Act contract.

Response to Question c):

No Impact. The proposed Project area is at the boundary of the Cleveland National Forest (approximately 0.15 miles from Cleveland National Forest); however, it is not located within the National Forest. As noted above, the proposed Project area is zoned as residential (Suburban Residential and Rural Residential) and is not zoned for timberland or timberland production. Because the proposed Project replaces an existing bridge within an existing roadway right of way, it will not cause new zoning of timberland or timberland production. The proposed bridge replacement would not conflict with existing zoning for, or cause zoning of, timberland or timberland zoned for Timberland Production. No impacts will occur.

Response to Question d):

No Impact. As previously addressed, the proposed bridge would replace an existing bridge, and while the proposed bridge would be wider than the existing bridge, it would not significantly alter the existing land use, which is an existing roadway and road right of way. The proposed Project is 0.15 miles south of the Cleveland National Forest. However, the Cleveland National Forest is not in the immediate vicinity of the proposed Project and not within the Project footprint. The Project would not result in the loss of forest land or convert forest land to non-forest use, and no impact would occur.

Response to Question e):

No Impact. The proposed Project area is not located on or adjacent to any lands identified as Important Farmland, as discussed in the response to Question (a), above. The site is near the Cleveland National Forest, but not in the immediate vicinity of the National Forest, and no agricultural, timberland, or forest land is within the Project footprint. The proposed Project would result in neither a significant alteration of current use nor conversion of existing or adjacent Important Farmland and forest land. Therefore, no conversion of Important Farmland or forest land uses would occur, and no impact would occur.

4.7 Air Quality Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?				
c) Expose sensitive receptors to substantial pollutant concentrations?			\boxtimes	
d) Result in other emissions (such as those leading to odors affecting a substantial number of people)?			\boxtimes	

Affected Environment

The proposed Project is located within the County of Orange, an area within the South Coast Air Basin (SCAB). Air regulation in the SCAB is administered by the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within SCAB. The SCAQMD also has responsibility for monitoring air quality and setting and enforcing limits for source emissions. California Air Resources Board (CARB) is the agency with the legal responsibility for regulating mobile source emissions. The SCAQMD is precluded from such activities under state law. The SCAQMD is the agency responsible for preparing regional air quality plans under the state and federal Clean Air Act.

Existing air quality conditions in the Project area can be characterized in terms of the ambient air quality standards that the state of California (California Ambient Air Quality Standards [CAAQS]) and the federal government (National Ambient Air Quality Standards [NAAQS]) have established for several different pollutants. For some pollutants, separate standards have been set for different measurement periods. Under NAAQS, there are two types of national air quality standards: primary standards, which are designed to protect public health with an adequate margin for safety; and secondary standards, which are designed to protect the public welfare from adverse effects, including those related to effects on soils, water, crops, vegetation, man-made (anthropogenic) materials, animals, wildlife, weather, visibility, and climate. Under CAAQS, the standards are designed to protect public health and the most sensitive populations in communities.

Table 7 shows the state and federal standards for a variety of pollutants. Ambient air pollutant concentrations are measured at 39 permanent monitoring stations throughout the SCAB. The federal and

state governments have established ambient air quality standards for six criteria pollutants: ozone, CO, NO_2 , SO_2 , particulate matter ($PM_{2.5}$ and PM_{10}), and lead. Within the SCAQMD, ozone, $PM_{2.5}$ and PM_{10} are considered pollutants of concern.

SCAQMD prepares an Air Quality Management Plan (AQMP) to describe air pollution control strategies to be implemented by counties or regions classified as nonattainment areas (areas where the air quality exceeds the established ambient air quality standards) in order to bring the area into compliance with the requirements of federal and state ambient air quality standards. The AQMP utilizes local planning agencies' future growth projections identified in their General Plans to determine control strategies for regional compliance status, and identifies projects potentially causing (or likely to cause) a significant impact on air quality which would impede fulfilling compliance of the federal and state ambient air quality standards. Projects consistent with the local General Plan are generally considered consistent with the AQMP, as the AQMP is based on growth projections from local General Plans and accounts for projects that are included in the local General Plans in its air quality projections and efforts to bring the region into attainment. Additionally, the estimated pollutants emitted from any project must not exceed any significance threshold set by the SCAQMD or cause a significant impact on air quality in order to be consistent with the AQMP. If the SCAQMD significance thresholds are exceeded, a project can be considered consistent with the AQMP by implementing feasible mitigation measures to reduce its impact level from significant to less than significant under CEQA.

The proposed Project is located in an area that is in non-attainment for the following NAAQS: 8-hour ozone, 1-hour ozone, PM_{2.5}, and partial non-attainment for lead. The SCAB is in attainment or unclassified for other Federal criteria pollutants. Under CAAQS, the proposed Project is located in an area that is in non-attainment for 8-hour ozone, 1-hour ozone, PM₁₀, and PM_{2.5}. The SCAB is in attainment or unclassified for other state criteria pollutants. Table 7 shows the applicable federal and state Ambient Air Quality Standards. Table 8 summarizes the ambient air quality classifications for the proposed Project location.

The SCAB has a hot, dry, desert climate. Precipitation in the SCAB is approximately 14 inches annually and occurs mostly in the winter months from active frontal systems and occasionally in summer months from thunderstorms. The proposed Project site is at an elevation of approximately 1,577 feet above sea level. The average maximum temperature annually is 83 degrees Fahrenheit and the average minimum temperature annually is 47 degrees Fahrenheit (U.S. Climate Data 2021). The average temperature overall is 63.5 degrees Fahrenheit.

Table 7: Ambient Air Quality Standards

		Ambient A	Air Qualit	y Standard	ds	
	Averaging	California Standards 1		National Standards ²		
Pollutant	Time	Concentration ³	Method ⁴	Primary 3,5	Secondary 3,6	Method 7
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 μg/m³)	Ultraviolet Photometry	1	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 μg/m ³)		0.070 ppm (137 µg/m³)		
Respirable	24 Hour	50 μg/m ³	Gravimetric or Beta Attenuation	150 μg/m ³	Same as	Inertial Separation
Particulate Matter (PM10) ⁹	Annual Arithmetic Mean	20 μg/m ³			Primary Standard	and Gravimetric Analysis
Fine Particulate	24 Hour			35 μg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
Matter (PM2.5) ⁹	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 μg/m ³	15 μg/m³	
Carbon	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	-	Non-Dispersive Infrared Photometry (NDIR)
Monoxide	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	-	
(CO)	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	(10.11)	_	_	
Nitrogen Dioxide	1 Hour	0.18 ppm (339 μg/m³)	Gas Phase	100 ppb (188 μg/m ³)	-	Gas Phase Chemiluminescence
(NO ₂) ¹⁰	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	Chemiluminescence	0.053 ppm (100 μg/m³)	Same as Primary Standard	
	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 μg/m³)	2-0	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
Sulfur Dioxide	3 Hour	-		-	0.5 ppm (1300 µg/m³)	
(SO ₂) ¹¹	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas) ¹¹	-	
8	Annual Arithmetic Mean	-		0.030 ppm (for certain areas) ¹¹	-	
	30 Day Average	1.5 μg/m³	Atomic Absorption	-	_	
Lead ^{12,13}	Calendar Quarter	1		1.5 µg/m³ (for certain areas) ¹²	Same as	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 μg/m ³	Primary Standard	
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape		No	
Sulfates	24 Hour	25 μg/m ³	Ion Chromatography	National Standards		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

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(Table 7, continued)

- California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and
 particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be
 equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the
 California Code of Regulations.
- 2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
- 3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of
 the air quality standard may be used.
- 5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
- 8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- 9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 μg/m³ to 12.0 μg/m³. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 μg/m³, as was the annual secondary standard of 15 μg/m³. The existing 24-hour PM10 standards (primary and secondary) of 150 μg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
 - Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- 14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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Silverado Cariyon Bridge

Table 8: Attainment for the South Coast Air Basin

Pollutant	Attainment Status			
Pollutant	Federal	State		
O ₃ –8-hour	Nonattainment (Extreme)	Nonattainment		
O ₃ –1-hour	Nonattainment (Extreme)	Nonattainment		
PM ₁₀	Attainment (Maintenance)	Nonattainment		
PM _{2.5}	Nonattainment (Serious)	Nonattainment		
СО	Attainment (Maintenance)	Attainment		
NO ₂	Attainment (Maintenance)	Attainment		
SO ₂	Unclassifiable/Attainment	Not Available		
Sulfates	No Federal Standard	Attainment		
Lead	Nonattainment (Partial)	Not Available		
Hydrogen Sulfide	No Federal Standard	Attainment		

Sources: National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality, SCAQMD February 2016, http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=14

State Standards (CAAQS) Attainment Status for South Coast Air Basin

The CEQA Guidelines further state that the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make a determination as to the significance of a project's impacts. The SCAQMD has specified significance thresholds (SCAQMD 2016) to determine whether mitigation is needed for project-related air quality impacts. The SCAQMD's thresholds of significance for construction- and operation-related emissions are presented in Table 9.

Table 9: South Coast Air Quality Management District Thresholds of Significance

Thresholds of Significance				
Pollutant Construction (pounds per day) Operation (pounds per d				
NO _x	100 lbs/day	55 lbs/day (0.0275 tons/day)		
VOC	75 lbs/day	55 lbs/day (0.0275 tons/day)		
PM_{10}	150 lbs/day	150 lbs/day (0.075 tons/day)		
PM _{2.5}	55 lbs/day	55 lbs/day (0.0275 tons/day)		
SO _x	150 lbs/day	150 lbs/day (0.075 tons/day)		
СО	550 lbs/day	550 lbs/day (0.275 tons/day)		
Lead*	3 lbs/day	3 lbs/day (0.001 tons/day)		
Leau	3 ibs/day	3 103/ day (0.001 tolls/ day)		

Source: SCAQMD 2019, http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

Asbestos

Exposure and disturbance of rock and soil that contains asbestos can result in the release of fibers to the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (proper rock name serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock

^{*}Lead is no longer present in fuels and is not considered to be a pollutant of concern from fuel emissions, therefore construction emissions are not anticipated to surpass established thresholds.

quarrying activities where ultramafic rock is present. Based on the map of naturally-occurring asbestos locations contained in *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Department of Conservation, Division of Mines and Geology 2000), major ultramafic rock formations are not found within proximity to the proposed Project site.

Response to Question a):

Less than Significant Impact. The SCAQMD is required to produce air quality management plans directing how the SCAB's air quality will be brought into attainment with the national and state ambient air quality standards. The most recent air quality management plan is *2016 AQMP* it is applicable to the County of Orange. The purpose of the AQMP is to achieve and maintain both the national and state ambient air quality standards described above.

In order to determine if a project is consistent with the AQMP, the SCAQMD has established consistency criteria which are defined in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD's *CEQA Air Quality Handbook* and are discussed below.

Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the 2016 Air Quality Management Plan.

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. As evaluated under Issue (b) below, the proposed Project would not exceed regional or localized significance thresholds for any criteria pollutant during construction or during long-term operation. Accordingly, the proposed Project's regional and localized emissions would not contribute substantially to an existing or potential future air quality violation or delay the attainment of air quality standards.

<u>Consistency Criterion No. 2:</u> The proposed Project will not exceed the assumptions in the 2016 Air Quality Management Plan.

The AQMP demonstrates how the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth Projections from local general plans adopted by cities in the SCAQMD are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP.

The bridge would serve the same average daily traffic with or without the bridge widening — all of which is accounted for in the growth projections that the AQMP relies on. Therefore, the proposed Project would not change the number of vehicle trips or their operational characteristics, no change in the volume of vehicular emissions would occur, and the proposed Project would not substantially contribute to or cause deterioration of existing air quality. Further, the proposed Project would not increase emissions nor would the proposed Project prevent the air quality goals outlined in the County of Orange General Plan from being reached. The proposed Project is consistent with the AQMP; therefore, the Project would not conflict with or obstruct implementation of the AQMP. Less than significant impacts are anticipated.

Response to Question b):

Less than Significant Impact. Construction of the proposed Project would result in short-term and intermittent increases in criteria pollutants; however, no long-term operational impacts related to net increases of criteria pollutants would occur. According to results of the proposed Project's Roadway Construction Emission Model (RCEM), construction effects would not result in an exceedance of the SCAQMD construction emission thresholds. Specifically, the RCEM determined that the short-term local nuisance of increased criteria pollutants would all be less than the daily maximum pounds (lbs) per day SCAQMD thresholds (see Table 10). In addition, the proposed Project would implement Caltrans' Construction Site Best Management Practices to further reduce any potential air quality impacts. Therefore, the proposed Project's effects to air quality would be considered less than significant. Discussion of the short-term construction and operational significance thresholds, as applicable to the proposed Project, is below.

Construction Emissions

Temporary construction activities would include site preparation and bridge construction that will involve excavation, grading, constructing new shoulders, and other construction activities. During construction, short-term air quality effects are expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. However, adherence to standard dust control and construction BMPs would be required as part of the proposed Project's Construction Management Plan.

Emissions from construction equipment powered by gasoline and diesel engines are also anticipated. The RCEM model (Appendix D) estimates construction equipment effects of criteria pollutants including Carbon Monoxide (CO), Oxides of Nitrogen (NOX), Volatile Organic Compounds (VOCs), directly emitted PM10 and PM2.5, and toxic air contaminants (TACs) such as diesel exhaust particulate matter. These emissions would be temporary and limited to the immediate area surrounding the construction site. According to the Air Resources Board (ARB), studies show that concentrations of traffic related pollutants declined with distance from the road, including a 70% drop off in particulate pollution, primarily in the first 500 feet (CARB 2005). With this information it could be assumed that the emissions from construction would primarily be within 500 feet, which encompasses most of the construction site. The RCEM model was calculated with the proposed Project's construction anticipated to take approximately 8 months. The proposed Project's construction emissions were modeled using the RCEM developed by Sacramento Metropolitan Air Quality Management District (SMAQMD 2020), which is the accepted model for all CEQA roadway projects throughout California. According to SCAQMD air quality modeling guidance, the RCEM can be used to assist roadway project proponents with determining the emissions impacts of their projects (SCAQMD 2021). The RCEM results were then compared with the SCAQMD Air Quality Significance Thresholds to determine if the proposed Project would exceed any regional thresholds of significance. As summarized in Table 10, due to the limited scale/intensity of the proposed Project's construction activities, construction related emissions will not exceed any of the SCAQMD threshold criteria for significant air quality impacts. Compliance with those thresholds demonstrates that a given project will not have a cumulatively considerable impact. Therefore, the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment, and the proposed Project's air quality effects would be considered less than significant.

Table 10: RCEM Emissions Estimates

Pollutant	Maximum Daily Construction Emissions Model Result (lbs/day)	SCAQMD Emissi (lbs/c	
	Construction Only	Construction	Operation
Respirable Particulate Matter (PM10)	9.62	150	150
Fine Particulate Matter (PM2.5)	4.52	55	55
NOX	88.12	100	55
Oxides of Sulfur (SOX)	0.16	150	150
СО	66.30	550	550
VOC	8.22	75	55

Source: SCAQMD 2019, http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

Operational Emissions

The proposed Project would replace the existing two-lane bridge, and would not add any travel lanes to the replacement bridge. Currently, the average daily traffic for the existing bridge is 2000, according to the County's most recent traffic count, which was conducted in March 2018. Since there will be no additional travel lanes added on the proposed bridge (it will remain a two-lane bridge), there is no significant increase in vehicles anticipated. As a result, the proposed Project is not anticipated to result in an increase of operational emissions.

Response to Question c):

Less than Significant Impact. The proposed Project would have a less than significant impact as relates to exposing sensitive receptors to substantial pollutant concentrations. Although the closest sensitive receptors are residences located southeast of the bridge, within approximately 75 feet of the proposed Project area, construction and construction-related air quality impacts would be temporary in nature. In addition, due to the inclusion of Caltrans' Construction Site Best Management Practices (Wind Erosion Control BMP (WE-1) listed below), which are aimed at avoiding and minimizing construction-related air quality impacts, these impacts are not considered significant.

Response to Question d):

Less than Significant Impact. The proposed Project would have a less than significant impact as relates to creating objectionable odors. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site(s). Such odors would be quickly dispersed below detectable thresholds as distance from the site(s) increases. Although the closest sensitive receptors are residences located southeast of the bridge, within approximately 75 feet of the proposed Project area, construction and construction-related air quality impacts would be temporary in nature. In addition, due to the inclusion of Caltrans' Construction Site Best Management Practices, which are aimed at avoiding and minimizing construction-related air quality impacts, these temporary impacts are not considered significant.

Avoidance, Minimization, and /or Mitigation Measures

All of the construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term impacts. In addition, implementation of Caltrans' Construction Site Best Management Practices below will reduce any air quality impacts resulting from construction activities.

The Wind Erosion Control BMP (WE-1) from Caltrans' Construction Site Best Management Practices Manual will be implemented as follows:

- Water shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
- All distribution equipment shall be equipped with a positive means of shutoff.
- Unless water is applied by means of pipelines, at least one mobile unit shall be available at all times to apply water or dust palliative to the Project.
- If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board requirements. Nonpotable water shall not be conveyed in tanks or drain pipes that will be used to convey potable water and there shall be no connection between potable and non-potable supplies. Non-potable tanks, pipes and other conveyances shall be marked "NON-POTABLE WATER – DO NOT DRINK."
- Materials applied as temporary soil stabilizers and soil binders will also provide wind erosion control benefits.

4.8 Biological Resources Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			\boxtimes	

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

Affected Environment

Physical Conditions

The Biological Study Area (BSA) is defined as the proposed Project Impact area and includes all areas necessary to accommodate the design and facilitate construction of the Project. The elevation within the BSA is approximately 1,577 ft. above mean sea level. In the vicinity of the BSA, annual temperatures range from a high of 76 degrees Fahrenheit to a low of 55 degrees Fahrenheit. The average annual rainfall is approximately 13.63 inches ((U.S. Climate Data 2021)). The topography within the BSA is generally flat at the bottom of the Silverado Canyon with large sloping California sage scrub hills to the north and south of the BSA. Soil within the BSA consists entirely of Soboba cobbly sandy loam, with 0 to 15 percent slopes (NRCS 2019).

Biological Conditions

Wetlands and Waters

Based on field survey results, the United States Geological Survey (USGS) Santiago Peak 7½ minute quadrangle topographic map, the United States Fish and Wildlife Service (USFWS) National Wetland Inventory, and FEMA Flood Insurance Rate Map (FIRM), the only water feature within the BSA is Silverado Creek (Appendix A, Aquatic Resource Delineation Report). Silverado Creek is an intermittent creek tributary to Santiago Creek as part of the Santa Ana River watershed and is considered a jurisdictional water of the U.S. and state. Within the BSA, Silverado Creek maintains flows throughout most of the year, with complete drying during the summer months. The creek bed has very cobbly loamy sand alluvium substrate from 0 to 10 inches and very gravelly sand from 10 to 60 inches (NRCS 2019).

Vegetation

Dominant vegetation communities within the BSA include barren/urban, intermittent stream, and riparian woodland (Figure 7 - Vegetation Communities within the Biological Study Area, and Figure 8 - Sensitive Natural Habitat).

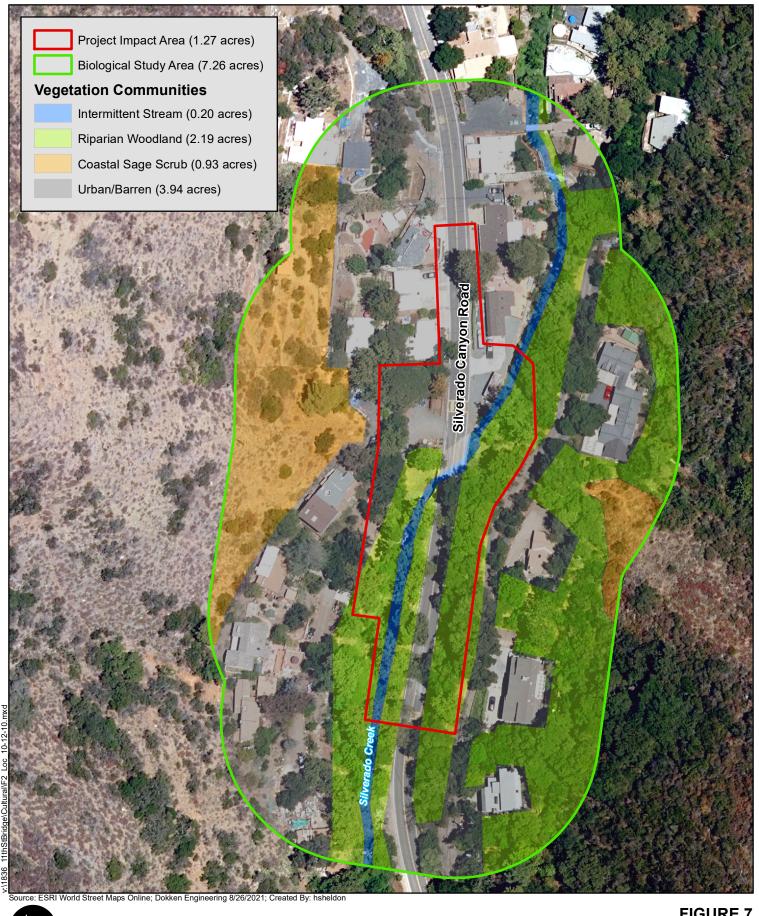
Urban

Urban/Barren habitat is man-made infrastructures, defined by the absence of any vegetation, and is constructed with gravel, compacted soil, and/or asphalt. Urban areas within the BSA are categorized as roadway (Silverado Canyon Road) and associated pullouts and driveways along the road. This habitat type is categorized as highly disturbed. Approximately 0.60 acres of the BSA is classified as urban/barren.

Intermittent Stream

Within the BSA, Silverado Creek is classified as intermittent stream. It is dominated by run and riffle areas with cobble, gravel, and sand substrates. Within the intermittent stream habitat, a composition of vegetation accustomed to wet conditions exists including, watercress (*Nasturtium officinale*), California

mugwort (Artemisia douglasiana), and spearmint (Menta spicata). Delineation results determined that approximately 0.10 acres of Silverado Creek are within the BSA.



1 inch = 100 feet

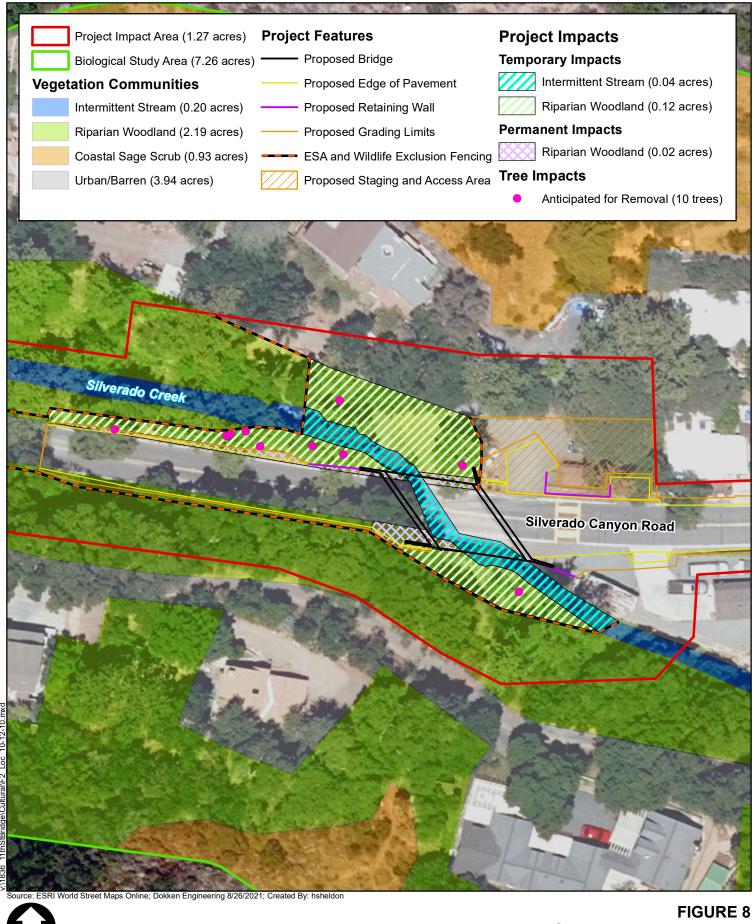
100

200

⊐ Feet

FIGURE 7 Vegetation Communities within the BSA

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1 inch = 48 feet

75 150
Feet

FIGURE 8 Impacts to Sensitive Natural Habitats

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Riparian Woodland

Riparian woodland is a tall deciduous streamside woodland that is dominated by western sycamore (*Platanus racemosa*) and occasional white alders (*Alnus rhombifolia*). These woodland stands seldom form closed canopies and may even appear as trees scattered in a shrubby thicket. The community is associated with rocky stream beds, such as Silverado Creek, that are subject to high intensity flooding. The intermittent nature these types of drainages favors western sycamore as the dominant species, but white alder increases in abundance on more perennial streams.

Wildlife

Minimal wildlife species were observed within the BSA during the biological surveys. Wildlife anticipated to occur within the BSA is limited to common wildlife species typically found in the temperate climate of a southern California riverine ecosystem. Habitat adjacent to the BSA is highly disturbed through mowing and residential activity, and mixed barren/urban landscape. A complete list of wildlife species observed, or identified through sign, within the BSA is provided in Appendix C.

Habitat Connectivity

Silverado Creek runs east to west through the BSA. The Silverado Creek corridor may supply habitat connectivity for terrestrial and aquatic species; however, Silverado Creek is not identified as an Essential Connectivity Area by CDFW. The proposed Project area is listed as Rank 5 on the CDFW Terrestrial Connectivity Dataset, which is one of four key components of the overall CDFW Area of Conservation Emphasis (ACE) suite for terrestrial conservation information, along with Terrestrial Biodiversity, Significant Habitats, and Climate Resilience. Rank 5 identifies areas that are considered "Irreplaceable and Essential Corridors" and areas identified for priority species movement corridors (CDFW 2020).

Response to Question a):

Less than Significant with Mitigation Incorporated. The proposed Project would have less than significant impact on special status species (See Appendix C) with mitigation incorporated. Based on the results of the September 26, 2019 biological surveys, 12 special status wildlife species were determined to have potential to occur within the BSA, and are discussed in detail below:

Special Status Amphibian Species

Coast Range Newt

Coast Range Newt (*Taricha torosa*), also known as the California newt, occurs commonly in the Coast Ranges from central Mendocino County south to northern San Diego County. The species is considered a species of special concern (SSC) from Monterey County south, whereas the species has no protection status north of Monterey County. The species occurs primarily in valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub and mixed chaparral, but is also known from annual grassland and mixed conifer types in elevation ranges from near sea level to about 6,000 ft.

No coast range newts were identified during the September 26, 2019 biological surveys. The BSA does contain hardwood sycamore/alder riparian woodland habitat and is adjacent to sloped chaparral habitat. Silverado Creek, which runs through the BSA, is an intermittent stream and could serve as breeding habitat for the species. The nearest historic (1999) California Natural Diversity Database (CNDDB) (See Appendix B) occurrence of the species is within the general area of the USGS 7.5-minute quadrangle of Black Star Canyon, which is approximately 3 miles north of the proposed Project area. Additionally, a recent (2015)

iNaturalist research grade observation documented the species within 0.5 mile of the BSA. Due to the presence of potentially suitable habitat, and recent occurrences, the species is considered to have a high potential to occur within the BSA.

Arroyo Toad

Habitat assessments and protocol level presence/absence surveys for Arroyo Toad (ARTO) determined that no suitable ARTO habitat is present within the BSA. However, according to the USFWS Critical Habitat Mapper, the BSA falls with "Unit 8 Santiago Creek, Orange County", of the final revised critical habitat for the federally endangered ARTO, where acreage is centered around the confluence of Santiago, Black Star, and Baker creeks, just above Irvine Lake, and includes portions of each creek and the adjacent uplands.

The proposed Project has been designed to ensure avoidance and minimize of impacts to ARTO critical habitat to the greatest extent practicable with the implementation of measures **BIO-1** through **BIO-8**. Within the Silverado Creek corridor, the proposed Project will have no permanent impacts to Silverado Creek and approximately 0.04 acres (186 linear feet) of temporary impacts to Silverado Creek. Therefore, the proposed Project will not restrict flows and will not alter hydrology within the Project impact area, limiting the potential impact to ARTO.

Additionally, the proposed Project anticipates a nominal amount of approximately 0.02 acres of permanent impacts to ARTO critical habitat upland dispersal habitat, and 0.12 acres of temporary impacts to ARTO critical habitat upland dispersal habitat (Figure 9 - Impacts to Arroyo Toad Critical Habitat). All temporary impacts would be restored to pre-construction conditions or better as stated in measure **BIO-8** and permanent effects within the riparian woodland would not restrict flows or alter hydrology within the Silverado Creek corridor. With the limited amount of Project impacts to the ARTO critical habitat and based upon ARTO habitat assessments and protocol level presence/absence surveys indicating that ARTO do not use this segment of Silverado Creek within the proposed Project impact area, Caltrans proposes a May Effect, Not Likely to Adversely Affect determination for ARTO critical habitat within the proposed Project BSA. Informal consultation with USFWS will be initiated for proposed Project impacts to ARTO critical habitat.

Project Impacts

Construction activities within Silverado Creek would contribute to temporary impacts to the creek channel, as well as temporary and permanent impacts to the adjacent riparian woodland habitat within ARTO critical habitat and may also be utilized by coast range newt. Temporary impacts would be limited to approximately 0.04 acres (186 linear feet) of temporary ground disturbance associated with construction activities and Silverado Creek temporary dewatering. Additionally, the proposed Project will have approximately 0.12 acres of temporary impacts and approximately 0.02 acres of permanent impacts to riparian woodland habitat. The proposed Project has been designed to minimize temporary and permanent impacts to creek, riparian woodland and ARTO critical habitat with the implementation of BIO-1 through BIO-9. In addition to these measures, BIO-10 through BIO-13 will further reduce any potential proposed Project impacts to this species. Direct impacts to ARTO are not anticipated. Less than significant impacts with mitigation incorporated are anticipated.

Special Status Avian Species

Coastal California Gnatcatcher

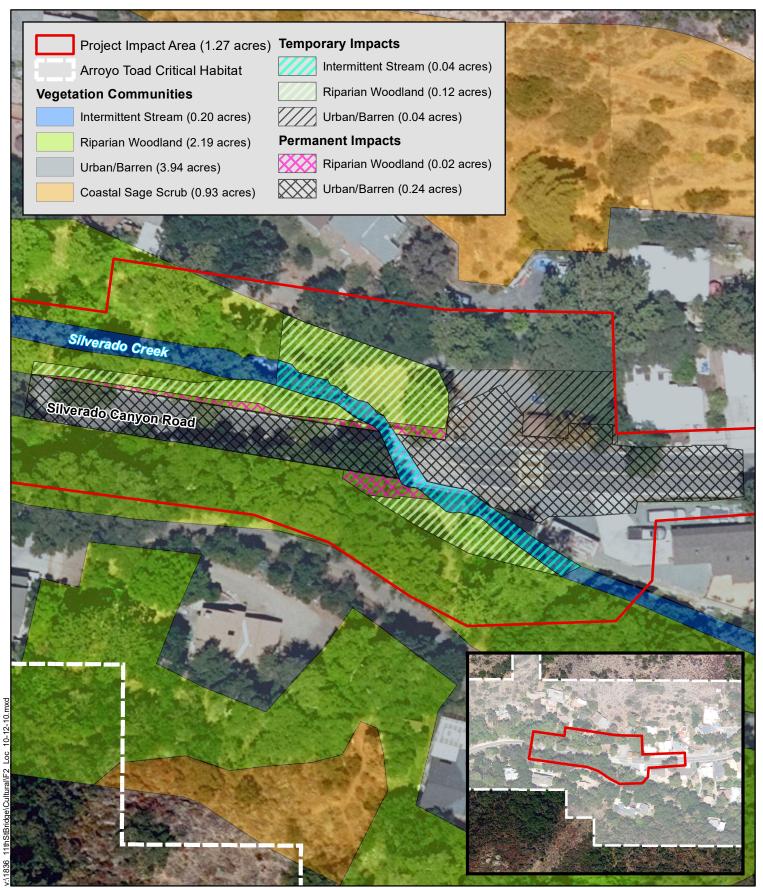
Coastal California gnatcatcher (*Polioptila californica californica*) is a federally listed threatened species under the Federal Endangered Species Act (FESA) and listed as a CDFW SSC. This species is a small, non-migratory songbird that occurs along the Pacific coastal regions of southern California and northern Baja California, Mexico (Zink 2000). The range and distribution of the gnatcatcher is closely aligned with coastal scrub vegetation, but the species is known to use adjacent habitats for foraging and dispersal. The breeding season of the coastal California gnatcatcher extends from about February 15 through August 30, with the peak of nesting activity occurring from mid-March through mid-May. Among the threats contributing to the coastal California gnatcatcher's decline are habitat destruction due to housing development, shopping malls, and farmlands. In addition, nesting attempts often fail, partly because of brown-headed cowbird (*Molothurs* ater) nest parasitism, wildfire, and grazing.

No coastal California gnatcatcher were visually or audibly identified during the September 26, 2019 biological surveys. The BSA lacks suitable dense coastal sage scrub for nesting; however, the BSA does contain potentially suitable riparian woodland adjacent to sloped chaparral habitat. Furthermore, the nearest CNDDB occurrence of the species is approximately 4 miles northwest of the proposed Project area (2002). Due to the presence of marginally suitable habitat and nearby occurrences, the species is considered to have a low to moderate potential to occur within the BSA.

Least Bell's Vireo

The least Bell's vireo (*Vireo bellii pusillus*) is a federally and state listed endangered species under the FESA and CESA. The species is one of four subspecies of Bell's vireo recognized by the American Ornithologist's Union (AOU 1957). They are only 11.5-12.5 centimeters long (about 4.5 to 5.0 inches). It is the westernmost subspecies, breeding entirely within California and northern Baja California (Kus 2008). The breeding season of least Bell's vireo extends from about April 10 through July 31 (USFWS 2001). By the time the species was listed by the U.S. Fish and Wildlife Service in 1986, it had been extirpated from most of its historic range and numbered just 300 pairs statewide. In 1998, the population size was estimated at 2,000 pairs (USFWS 1998). Among the threats contributing to the least Bell's vireo's decline are habitat destruction due to urban development, golf courses, agriculture conversion, and livestock grazing. In addition, traffic noise, feral pets, and recreational use of habitat contribute to disturbances.

No least Bell's vireos were visually or audibly identified during the September 26, 2019 biological surveys. The BSA does contain potentially suitable riparian woodland habitat in the vicinity of water and dry river bottoms such as the intermittent Silverado Creek within the BSA. The nearest presumed extant CNDDB occurrence of the species is approximately 3 miles south of the proposed Project area (2017). Due to the presence of potentially suitable habitat and nearby occurrences, the species is considered to have a low to moderate to occur within the BSA.



Source: ESRI World Street Maps Online; Dokken Engineering 8/30/2021; Created By: hsheldon



1 inch = 50 feet

FIGURE 9 Impacts within Arroyo Toad Critical Habitat

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Project Impacts

No direct impacts to special status nesting birds are anticipated. Furthermore, no coastal sage scrub (CSS) habitat would be impacted by the proposed Project. However, the proposed Project does anticipate temporary and permanent impacts to riparian woodland habitat, which may serve as potentially suitable foraging and dispersal habitat. The proposed Project will have approximately 0.12 acres of temporary impacts and approximately 0.02 acres of permanent impacts to riparian woodland habitat, including the anticipated removal of approximately 10 large diameter trees. Species specific avoidance, minimization and mitigation measures BIO-14 through BIO-16 have been incorporated into the proposed Project design to avoid impacts to special status avian species and protected migratory birds to the greatest extent practicable. These measures will ensure no special status avian species or protected migratory birds are nesting within or directly adjacent to the proposed Project vicinity during vegetation removal and will mitigate for impacts to suitable habitats. Therefore, the proposed Project "may affect, not likely to adversely affect" coastal California gnatcatcher and least Bell's vireo. The implementation of avoidance and minimization measures BIO-1 through BIO-7, compensatory mitigation measures BIO-8 and BIO-9, and species-specific measures BIO-14 through BIO-16 will reduce any potential Project impacts to these species to a level that is less than significant.

Compensatory mitigation for impacts to special status avian species will be determined through FESA Section 7 Consultation with USFWS. With the implementation of avoidance and minimization measures BIO-1 through BIO-7 impacts to potentially suitable habitat for special status avian species would be reduced to the greatest extent practicable. Additionally, with compensatory mitigation measures BIO-8 and BIO-9 any temporary and permanent effects to potentially suitable habitat would be compensated. Furthermore, with implementation of the species-specific avoidance and minimization measures BIO-14 through BIO-16, direct impacts to California coastal gnatcatcher and least Bell's vireo are not anticipated and additional compensatory mitigation specific to these species is not proposed at this time.

Special Status Reptile Species

Coast Horned Lizard

The coast horned lizard (*Phrynosoma coronatum*) is not a state or federally listed species but is a CDFW SSC. It inhabits valley-foothill hardwood, conifer forest, and riparian woodland habitats, as well as pine-cypress, juniper woodland, and annual grasslands with sandy areas, washes or flood plains. The species occurs in the Sierra Nevada foothills from Butte County to Kern County and throughout the central and southern California coast. They are frequently found near ant hills. Egg laying occurs from May to June, and some females may lay two clutches per year. The species elevation range is sea level to 8,000 ft. but are found chiefly below 900 meters or 3,000 ft. in southern California (Zeiner et al. 1988-1990).

No coast horned lizard was observed during the September 26, 2019 biological surveys. The BSA contains potentially suitable riparian woodland habitat and sandy soils. Additionally, the nearest CNDDB occurrence of the species is approximately 1 mile south of the proposed Project area (2017). Due to the presence of suitable habitat and recent, nearby occurrences, the species is considered to have a high potential to occur within the BSA.

Coast Patch-Nosed Snake

The coast patch-nosed snake (*Salvadora hexaelepis virgultea*) is not a state or federally listed species but is a CDFW SSC. It is widely distributed throughout southern California from the coast to the eastern border,

and as far north as Owens Valley in desert habitats. The species is most commonly found in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas. The species is an active diurnal forager and is susceptible to high levels of vehicle mortality. It requires small mammal burrows for refuge and overwintering sites. Mating for the species generally takes place between April and June with egg laying occurring between May and August. The species occurs from below sea level to approximately 7,000 ft. (Zeiner et al. 1988-1990).

No coast patch-nosed snake was observed during the September 26, 2019 biological surveys. The BSA does not contain brush or shrubby chaparral, rock hillslopes or plains suitable for the species. However, the species may use the Silverado creek habitat as a wildlife corridor. One historic (1999) presumed extant CNDDB occurrence of the species is approximately 3.7 miles northwest of the BSA (1999). Additionally, a recent (2019) iNaturalist research grade observation was documented less than 0.5 mile east of the BSA. Due to the potential for the species to use the BSA as a wildlife corridor and the recent local occurrence, the species is considered to have a low to moderate potential to occur within the BSA.

Coastal Whiptail

The coastal whiptail (*Aspidoscelis tigris stejnegeri*) is not a state or federally listed species but is a CDFW SSC. The species is widely distributed but uncommon over much of its range in California, except in desert regions where it is abundant in suitable habitats. The species is found throughout the state except in the humid northwest, along the humid outer Coast Ranges, or mountainous regions. The species is primarily diurnal and can be found in a variety of habitats including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, mixed conifer, pine-juniper, chamise-redshank chaparral, mixed chaparral, desert scrub, desert wash, alkali scrub, and annual grassland. Reproductive season for the species varies geographically and from year to year depending on local conditions. The species occurs from below sea level to approximately 7,500 ft. (Zeiner et al. 1988-1990).

No coastal whiptail was observed during the September 26, 2019 biological surveys. The BSA contains riparian woodland habitat suitable for the species. The nearest recent (2008) presumed extant CNDDB occurrence of the species is approximately 4.5 miles southwest of the BSA. Additionally, a recent (2019) iNaturalist research grade observation was documented approximately 1 mile east of the BSA. Due to the presence of potentially suitable habitat, and local recent occurrences, the species has a low to moderate potential to occur within the BSA.

Orange-Throated Whiptail

The orange-throated whiptail (*Aspidoscelis hyperythra*) is not a state or federally listed species but is a CDFW SSC. It is uncommon to fairly common over much of its range in Orange, Riverside, and San Diego counties west of the crest of the Peninsular Ranges. The species prefers washes and other sandy areas with patches of brush and rocks (Stebbins 1972). The species is active diurnal from early spring to mid-or late summer. The species has an extensive home range and is likely not territorial. Breeding activities begin in April and egg laying continues to mid-July. In California the species' elevation range extends from near sea level to approximately 3,410 ft. (Zeiner et al. 1988-1990).

No orange-throated whiptail was observed during the September 26, 2019 biological surveys. The proposed Project does contain potentially suitable hardwood riparian woodland habitat. In addition, the nearest CNDDB occurrence of the species is approximately 1 mile south of the proposed Project area

(2016). Due to the presence of suitable habitat adjacent to the proposed Project area and recent nearby occurrences, the species has a low to moderate potential to occur within the BSA.

Red-Diamondback Rattlesnake

The red-diamondback rattlesnake (*Crotalus ruber*) is not a state or federally listed species but is a CDFW SSC. It is distributed along coastal San Diego County to the eastern slope of the mountains and north through western Riverside County into southernmost San Bernardino County. The species prefers chaparral, woodland, and arid desert habitats in rocky areas and dense vegetation. The species is active from spring to fall, but the period of greatest activity is from March to June. Young are live born from mid-August to October, and thus require a safe place for birth, likely in burrows or under substantial cover objects such as dense vegetation or large rocks. The species' elevation range occurs from sea level to approximately 3,000 ft. (Zeiner et al. 1988-1990).

No red-diamondback rattlesnake was observed during the September 26, 2019 biological surveys. The proposed Project area does contain potentially suitable rocky areas through the Silverado Creek corridor. The nearest recent CNDDB occurrence of the species is approximately 4 miles southeast of the proposed Project area (2001), and a recent (2017) iNaturalist research grade observation is approximately 1 mile from the BSA. Due to the presence of potentially suitable habitat and local recent occurrences, the species has a low to moderate potential to occur within the BSA.

Southern California Legless Lizard

The southern California legless lizard (*Anniella stebbinsi*) is not a state or federally listed species but is a CDFW SSC. It is a secretive fossorial lizard common in suitable habitat in the Coast Ranges from Contra Costa County south to the Mexican border. The species is common in several habitats, but especially in coastal dune, valley-foothill riparian, chaparral and coastal scrub types. Little is known regarding the species' specific habitat requirements for reproduction; however, mating activities are known to occur in late spring or early summer with live young born in September, October or even November. The species' elevation range occurs from near sea level to approximately 6,000 ft. in the Sierra (Zeiner et al. 1988-1990).

No southern California legless lizard was observed during the September 26, 2019 biological surveys. The BSA contains Silverado Creek, and the stream surroundings may provide suitable moist habitat with sandy soils and cover objects such as leaf litter from oaks, sycamores, willow and alder. The nearest historic (1970) CNDDB occurrence of the species is approximately 2.7 miles northwest of the proposed Project area, and a recent (2019) iNaturalist research grade observation is approximately 6.2 miles east of the BSA. Due to the presence of potentially suitable habitat, with historic and recent presumed extant occurrences, the species is considered to have a low to moderate potential to occur within the BSA.

Two-Striped Gartersnake

The two-striped gartersnake (*Thamnophis hammondii*) is not a state or federally listed species but is a CDFW SSC. It is distributed from the southeastern slope of the Diablo Range and the Salinas Valley south along the South Coast and Transverse ranges to the Mexican border, and on Santa Catalina Island. The species is highly aquatic, foraging primarily in and along streams. The species is diurnal, using mammal burrows, crevices, and surface objects for nocturnal retreats. Mating typically occurs soon after spring emergence and young are live born in late summer in secluded sites. The species' elevation range occurs from sea level to approximately 8,000 ft. (Zeiner et al. 1988-1990).

No two-striped gartersnake was observed during the September 26, 2019 biological surveys. The BSA contains Silverado Creek, and the stream surroundings may provide suitable habitat for the species. The nearest CNDDB occurrence of the species is approximately 0.5 mile northwest of the proposed Project area (2003), and a recent (2018) iNaturalist research grade observation is approximately 3.5 miles northeast of the BSA. Due to the presence of potentially suitable habitat and recent presumed extant occurrences, the species is considered to have a low to moderate potential to occur within the BSA.

Western Pond Turtle

The western pond turtle (WPT) is not a state or federally listed species but is a CDFW SSC. WPTs are native to the west coast and are found from Baja California, Mexico north through Klickitat County, Washington. The WPT is a fully aquatic turtle, inhabiting ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. The species requires suitable basking sites such as logs, rocks and exposed banks and associated upland habitat consisting of sandy banks or grassy open fields for reproduction. The species is omnivorous, consuming aquatic wildlife and vegetation. The WPT is known to hibernate underwater beneath a muddy bottom in colder climates and reproduce from March to August. Nests are generally found in flat areas with low vegetation and dry, hard soil (Zeiner et al. 1988-1990).

No western pond turtle was observed during the September 26, 2019 biological surveys. The BSA contains Silverado Creek, an intermittent stream which does not provide permanent aquatic habitat for the species. However, the stream may provide habitat from fall to spring when the stream does carry water. There are multiple presumed extant occurrences within 5 miles of the BSA. The nearest CNDDB occurrence of this species is approximately 1.5 miles northwest of the proposed Project area (1990), Due to the presence of potentially suitable habitat and presumed extant occurrences, the species is considered to have a low to moderate potential to occur within the BSA.

Project Impacts

Construction activities within Silverado Creek would contribute to temporary impacts to the creek and temporary and permanent impacts to the adjacent riparian woodland habitat that may be utilized by special-status reptile species. Temporary impacts would be limited to temporary ground disturbance associated with construction activities. Permanent impacts would be limited to grading limits and fill slopes for the new bridge structure. The proposed Project will have approximately 0.04 acres (186 linear feet) of temporary impacts to Silverado Creek and approximately 0.12 acres of temporary impacts and approximately 0.02 acres of permanent impacts to riparian woodland habitat.

The proposed Project is not anticipated to directly impact special status reptile species. The proposed Project has been designed to minimize and compensate temporary and permanent impacts to the intermittent creek and riparian woodland with the implementation of **BIO-1** through **BIO-9**. Furthermore, measures **BIO-10** through **BIO-13**, are species-specific measures that will be implemented to avoid impacts to special-status reptile species. With the inclusion of measures **BIO-1** through **BIO-13**, direct impacts to special status reptile species are not anticipated. All temporarily affected potentially suitable habitat will be re-contoured to preconstruction conditions and seeded with a native seed mix. Anticipated Project related permanent impacts will be mitigated for during the final permitting process. Compensatory mitigation specific to these species is not proposed at this time. Impacts will be less than significant with mitigation incorporated.

Special Status Mammal Species

Western Mastiff Bat

Western mastiff bat (*Eumops perotis*) is the largest native bat in North America. The species is found in a variety of arid and semi-arid open habitats including but not limited to coniferous woodland, oak woodland, coastal scrub, grassland, chaparral, desert scrub, and urban areas. Western mastiff bats do not migrate and remain active throughout the entire year. The species actively forages for moths and ground insects approximately 6 hours a night and rarely utilizes night roosts. Western mastiff bats roost in cliff crevices, tall buildings, trees, and tunnels, usually alone or in small colonies of less than 100 individuals. The primary threat to the species is loss of habitat (Zeiner 1988-1990).

During the biological reconnaissance survey, the qualified biologist performed inspections of the bridge and nearby trees for signs of bat roosting and/or inhabitation. No suitable roosting habitat was observed at the bridge or adjacent structures. However, trees within the BSA did demonstrate potential cavities suitable for bats. No western mastiff bats were identified during the September 26, 2019 biological surveys. The BSA does contain riparian deciduous woodland, and potentially suitable tree cavity roosting habitat was identified within the BSA during biological surveys. The nearest presumed extant CNDDB occurrence of the species is within Silverado Canyon, which includes the BSA (date unspecified and submitted by the United States Forest Service (USFS) – Cleveland National Forest for possible high use area, 2007). Due to the presence of suitable habitat and potential roosting sites, in addition to the USFS potential high use area CNDDB occurrence, the species is considered to have a low to moderate potential to occur within the BSA.

Project Impacts

Project impacts to the western mastiff bat, which is the only special-status mammal species with a potential to occur within the BSA, will be limited to the removal of 10 trees that may provide potentially suitable roosting habitat. With the inclusion of avoidance and minimization measures, the proposed Project will not remove a regionally significant amount of suitable tree roosting habitat and will not impact the viability of the population within the region.

In addition to avoidance and minimization measures **BIO-1** through **BIO-7** and compensatory mitigation measures **BIO-8** and **BIO-9**, the species-specific measures **BIO-17** through **BIO-20** have been incorporated into the proposed Project design to further avoid and minimize potential Project impacts to the special status bat species. With the inclusion of these measures, no direct impacts to the western mastiff bat are anticipated and no additional compensatory mitigation is proposed. Impacts would be less than significant with mitigation incorporated.

Invasive Species

In February 1999, Executive Order 13112 was signed, requiring federal agencies to work on preventing and controlling the introduction and spread of invasive species. Measures **BIO-21** and **BIO-22** have been designed to prevent and control the introduction and spread of invasive species.

Response to Question b):

Less than Significant with Mitigation Incorporated. Approximately 10 trees within the riparian woodland are anticipated to be removed (see Table 11 below) to allow for construction access and constructability of the proposed Project. However, all tree resources will be evaluated to determine where trees may remain protected in place without damaging essential root systems within the tree drip lines. The proposed Project has been designed to minimize temporary and permanent impacts to riparian woodland habitat within the proposed Project impact area to the maximum extent practicable. Prior to construction, regulatory permits will be obtained from USACE, RWQCB, and CDFW. Compensatory mitigation will be implemented in accordance with the requirements of those regulatory permits. In addition to all avoidance and minimization measures specified in the required regulatory permits, BMPs and measures **BIO-1** through **BIO-7** will be incorporated into the design of the proposed Project to minimize construction impacts to riparian woodland within the Project's impact area. Impacts would be less than significant with mitigation incorporated.

Species # of Stems **Diameter Breast** Height (DBH) California sycamore (Platanus racemosa) 1 10 2 California sycamore (Platanus racemosa) 21, 9 2 California sycamore (*Platanus racemosa*) 30, 9 California sycamore (Platanus racemosa) 1 34 California sycamore (Platanus racemosa) 1 7 Goodding's black willow (Salix gooddingii) 1 6 White alder (Alnus rhombifolia) 2 10, 3 California bay (Umbellularia californica) 1 7 California bay (Umbellularia californica) 7

1

1

17

Table 11. Anticipated Tree Removal

Response to Question c):

Grey pine (Pinus sabiniana)

Less than Significant with Mitigation Incorporated. Construction activities within Silverado Creek would be limited to approximately 0.04 acres of temporary ground disturbance within the proposed Project's impact area. This temporary ground disturbance would require temporary dewatering of approximately 0.04 acres to provide construction access for the construction of the new bridge structures. No permanent impacts to Silverado Creek are anticipated. Additionally, the implementation of BMPs and measures BIO-1 through BIO-5, BIO-7, and BIO-8 would serve to minimize construction impacts within Silverado Creek as well as mitigate for the anticipated temporary impacts at the appropriate ratio. Regulatory permits will also be obtained from CDFW and RWQCB due to the temporary impacts to the creek, and the proposed Project will be required to comply with the terms and conditions of those permits, further minimizing the temporary impacts. Impacts would be less than significant with mitigation incorporated.

Response to Question d):

Less than Significant Impact. No special status fish species are expected within the BSA, and interference with the movement of migratory fish is not expected to occur. Native birds, protected under the Migratory Bird Treaty Act (MBTA) and similar provisions under California Fish and Game Code, currently nest or have

the potential to nest within the BSA. No direct impacts to avian species are anticipated; however, the proposed Project does anticipate temporary and permanent impacts to riparian woodland habitat, including the anticipated removal of approximately 10 large diameter trees. Species-specific avoidance, minimization and mitigation measures **BIO-14** through **BIO-16** have been incorporated into the proposed Project design to avoid impacts to special status avian species and protected migratory birds to the greatest extent practicable. These measures will ensure no special status avian species or protected migratory birds are nesting within or directly adjacent to the proposed Project vicinity during vegetation removal and will mitigate for impacts to suitable habitats. The proposed Project area is listed as Rank 5 on the CDFW Terrestrial Connectivity Dataset, which is one of four key components of the overall CDFW ACE suite for terrestrial conservation information along with Terrestrial Biodiversity, Significant Habitats, and Climate Resilience. Rank 5 identifies areas that are considered "Irreplaceable and Essential Corridors" and areas identified for priority species movement corridors (CDFW 2020). However, construction of the proposed Project is not anticipated to impact the habitat connectivity of this area and existing essential wildlife corridors will be maintained. Impacts to native birds would be less than significant.

Response to Question e):

Less than Significant Impact. The proposed Project is consistent with local regulations involving the Orange County General Plan. To protect the wide variety of plants, animals and their habitats, the County has enacted a series of policies with the goal of addressing the preservation, management, and utilization of the County of Orange natural resources during the planning process, including fish and wildlife habitat protections, open space and recreation conservation, water and air resources and water quality objectives, and regulations for vegetation removal in areas within the General Plan Resource Element (County of Orange 2015). The riparian woodland present within the BSA is considered a sensitive natural community by CDFW and the County of Orange General Plan. Approximately 10 trees within the riparian woodland are anticipated to be removed to allow for construction access and constructability of the proposed Project. However, all tree resources will be evaluated to determine where trees may remain protected in place without damaging essential root systems within the tree drip lines. The proposed Project has been designed to minimize temporary and permanent impacts to riparian woodland habitat within the proposed Project impact area to the maximum extent practicable. Prior to construction, regulatory permits will be obtained from USACE, RWQCB, and CDFW. Compensatory mitigation will be implemented in accordance with those regulatory permits. In addition to all avoidance and minimization measures specified in the necessary regulatory permits, BMPs and measures BIO-1 through BIO-7 will be incorporated into the design of the proposed Project to minimize construction impacts to riparian woodland within the Project impact area. Impacts would be less than significant.

Response to Question f):

Less than Significant Impact. The Central/Coastal Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP) (County of Orange 1996a) was prepared by the County of Orange in cooperation with California Department of Fish and Game (CDFG, now CDFW) and USFWS. The NCCP/HCP focuses on creating a multiple-species, multiple habitat subregional Reserve System and implementing a long-term "adaptive management" program that will protect coastal sage scrub and other habitats and species located within the coastal sage scrub habitat mosaic, while providing for economic uses that will meet the social and economic needs of the people of the subregion.

Silverado Canyon Road falls within the NCCP/HCP Non-Reserve Open Space. The Non-Reserve Open Space designation refers to regional open spaces that were in public ownership prior to adoption of the NCCP/HCP. These open spaces are not subject to the development requirements associated with the Reserve System, but they are recognized as integral components of the overall subregional conservation strategy. According to Section 4.4.3.1 of the NCCP/HCP, future proposals to convert coastal sage scrub which may cause "Take" covered species within the permanent non-reserve open space are not authorized by the NCCP/HCP and are not mitigated by the NCCP/HCP. Any proposed impacts involving incidental take will require separate review by CDFW and USFWS in the same manner as provided for in "Existing Use Areas" to determine compliance with the applicable state and federal species protection laws/regulations (County of Orange 1996). Although coastal sage scrub was identified within the BSA, no coastal sage scrub habitat was identified within the proposed Project's impact area; therefore, no temporary or permanent impacts to coastal sage scrub habitat are expected and the proposed Project is consistent with the NCCP/HCP. Impacts would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

- BIO-1: Prior to the start of construction activities, the Project limits in the vicinity of Silverado Creek and associated riparian areas shall be marked with high visibility Environmentally Sensitive Area (ESA) fencing or staking to ensure construction will not further encroach into waters. Plans for the ESA fencing including maps of the project area and fencing limits shall be provided to the Carlsbad Fish & Wildlife Office (CFWO) at least 5 days prior to initiating Project impacts. The fencing shall be inspected by the Contractor before the start of each workday and maintained by the Contractor until completion of the Project. The Project biologist will periodically inspect the ESA to ensure sensitive locations remain undisturbed.
- **BIO-2:** Every individual working on the Project must attend a biological awareness training session delivered by a qualified biologist. This training program shall include information regarding special-status species (including pertinent bird, amphibian, mammal, and reptile species along with photographs), sensitivity of the species to human activities, penalties for violations of federal and state laws, and the importance of avoiding impacts to wildlife species individuals and associated habitat.

The training shall include species identification characteristics, BMPs to be implemented, Project-specific avoidance measures that must be followed, and the steps necessary if the species is encountered at any time. Personnel would attend biological awareness training prior to working within the Project area. The biological awareness training would include a description of special-status species and sensitive habitats and identify mitigation measures that must be complied with.

- **BIO-3:** Contract specifications will include the following BMPs, where applicable, to reduce erosion during construction:
 - Implementation of the Project shall require approval of a site-specific Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) that would implement effective measures to protect water quality, which may include a hazardous spill prevention plan and additional erosion prevention techniques.

- Existing vegetation will be protected in place where feasible to provide an effective form of erosion and sediment control.
- Roughening and terracing will be implemented to create unevenness on bare soil through
 the construction of furrows running across a slope, creation of stair steps, or by utilization
 of construction equipment to track the soil surface. Surface roughening or terracing
 reduces erosion potential by decreasing runoff velocities, trapping sediment, and
 increasing infiltration of water into the soil, and aiding in the establishment of vegetative
 cover from seed.
- Soil exposure must be minimized through the use of temporary BMPs, groundcover, and stabilization measures.
- The contractor must conduct periodic maintenance of erosion and sediment-control measures.

BIO-4: To conform to water quality requirements, the Project must implement the following:

- Vehicle maintenance, staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants must be a minimum of 50 ft. from surface waters. Any necessary equipment washing must occur where the water cannot flow into surface waters. The Project specifications will require the contractor to operate under an approved spill prevention and clean-up plan;
- Construction equipment will not be operated in flowing water;
- Construction work must be conducted according to site-specific construction plans that minimize the potential for sediment input to surface waters;
- Raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil
 or other petroleum products, or any other substances that could be hazardous to aquatic
 life shall be prevented from contaminating the soil or entering surface waters;
- Equipment used in and around surface waters must be in good working order and free of dripping or leaking contaminants; and,
- Any concrete rubble, asphalt, or other debris from construction must be taken to an approved disposal site.
- **BIO-5:** During construction, water diversion measures (e.g., sheet piles, sandbags or coffer dams) will be utilized to prevent water from entering the work area when conducting debris removal activities within the stream channel.

No work activities shall occur within flowing water within the ordinary high water mark (OHWM) of the creek. Once debris removal activities have occurred the creek channel will be graded back to pre-Project conditions.

Immediately upon completion of in-channel work, temporary fills (as needed), and any water diversion materials will be removed in a manner that minimizes disturbance to downstream flows and water quality.

BIO-6: Where feasible, riparian vegetation within temporary construction zones would be cleanly cut to ground level and then covered with a layer of clean gravel or topsoil as necessary to protect plant viability and prevent damage to remaining root structures during construction

BIO-7: The Project Biologist must be approved by the Carlsbad Fish and Wildlife Office (CFWO) and will be on site: (a) during all vegetation clearing, and (b) weekly during project construction within 500 feet of gnatcatcher and vireo habitat and arroyo toad critical habitat to monitor compliance with conservation measures. The biologist's name, contact information, and work schedule on the project must be submitted to the CFWO at least 15 working days prior to initiating project impacts. The Project Biologist will be available during pre-construction and construction phases to address protection of sensitive biological resources, monitor ongoing work, and maintain communications with construction personnel to facilitate the appropriate and lawful management of issues relating to biological resources.

The Project biologist shall submit a final report to the CFWO within 120 days of project completion including photographs of impact areas and adjacent habitat and documentation that general compliance with conservation measures was achieved. The report will list the number and location of listed species observed, observed listed species behavior, and remedial measures employed to avoid and minimize impacts to listed species. Raw field notes should be available upon request by the CFWO.

BIO-8: All temporary impacts to jurisdictional waters, riparian woodland and ARTO Critical Habitat during Project construction will be restored at a 1:1 ratio and will be re-contoured to preconstruction conditions and seeded with a native seed mix. Where possible, vegetation will be trimmed rather than fully removed with the guidance of the Project biologist. A restoration plan will be developed and submitted to the Carlsbad Fish & Wildlife Office. The plan will be implemented for a minimum of 5 years unless success criteria are met earlier.

If maintenance of a riparian area occupied by vireo occurs within the nesting season, a qualified biologist will survey for vireos. Surveys will consist of three visits separated by 2 weeks. Restoration work will be allowed to continue during surveys. However, if vireos are found during visits, a qualified biologist will notify the Carlsbad Fish & Wildlife Office to identify measures to avoid and/or minimize effects.

- **BIO-9:** The County will replant any mature native and non-native trees removed from within natural communities of special concern at a 2:1 ratio within the Santa Ana River watershed, due to the extent of existing development and minimal impact to native habitats resulting from the proposed Project.
- **BIO-10:** A pre-construction clearance survey for special status amphibian and reptile species shall be conducted 24-hours prior to vegetation clearing and/or initiation of construction activities. If any special status wildlife species or wildlife is found, the Project biologist shall relocate the wildlife downstream in the appropriate habitat. If a lapse in Project-related work of 15 days or longer occurs, another focused survey shall occur.
- BIO-11: As a first order of construction, the Project contractor shall install wildlife exclusion fencing (WEF) along the Project boundaries within suitable habitat prior to commencement of construction activities or staging of equipment, in order to prevent special status amphibian and reptile species individuals from entering the Project area during construction activities.
 - WEF shall consist of taught silt fencing supported by wooden stakes on the Project side only.

- WEF shall be buried a minimum of six (6) inches below ground and soil shall be compacted
 against the sides of the fence for its entire length to prevent special status species from
 passing under the fence.
- WEF shall extend 12 to 18 inches above the ground.
- The contractor shall inspect the WEF daily, and WEF shall be maintained, and repaired where
 necessary, throughout construction to ensure that it is functional and without defects, that
 the fencing material is taught and that the bottom edge of the fencing material remains
 buried.
- The Project biologist will periodically inspect the WEF to ensure it remains functional and appropriately maintained throughout construction.
- **BIO-12:** Prior to installation of WEF, the Project biologist shall inspect the Project area for wildlife to prevent entrapment within the Project area. If any special status wildlife species or wildlife is found, the Project biologist shall relocate the wildlife downstream in the appropriate habitat. If a lapse in Project-related work of 15 days or longer occurs, another clearance survey shall occur.
- BIO-13: All construction pipes, culverts, or similar structures that are stored in the Project area for one or more overnight periods shall be either securely capped prior to storage or thoroughly inspected by the contractor and/or the Project biologist for special status wildlife species or other animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If any special status wildlife species or wildlife is found within WEF, construction activities in the vicinity shall cease and the Project biologist shall be notified to relocate the wildlife to suitable habitat outside of the Project area. Only the approved Project biologist shall handle or relocate special status wildlife.
- **BIO-14**: To prevent inadvertent entrapment of the special status wildlife species or other animals during construction, the Project biologist and/or construction foreman/manager shall ensure all excavated, steep-walled holes or trenches more than six inches deep are provided with one or more escape ramps constructed of earthen fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by the Project biologist and/or construction foreman/manager.
- **BIO-15:** Vegetation removal shall occur outside of the coastal California gnatcatcher and least Bell's vireo nesting season (February 1 to September 1).
- **BIO-16:** If vegetation removal is required during the migratory bird nesting season (February 1 to September 1), a pre-construction nesting bird survey must be conducted within 7 days prior to vegetation removal. Within 2 weeks of the nesting bird survey, all vegetation cleared by the Project biologist will be removed by the contractor.

A minimum 300-foot no-disturbance buffer will be established around any active nest of migratory birds and a minimum 500-foot no-disturbance buffer will be established around any nesting raptor or CESA/FESA listed species. The contractor must immediately stop work in the buffer area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the Project biologist and in consultation with wildlife agencies) in the buffer area until a qualified biologist determines the young have fledged

and the nest is no longer in use. A reduced buffer can be established if determined appropriate by the Project biologist and approved by wildlife agencies.

- BIO-17: If project construction, excluding clearing and grubbing, is necessary during the gnatcatcher and vireo breeding season (February 1 to September 1), nesting surveys will be conducted to determine and document the presence/absence of breeding gnatcatchers or vireos. If active nests are identified within 500 feet of the noise generating construction activities and construction noise exceeds ambient noise levels, measures will be implemented to reduce noise to ambient levels at the nest location. The Project Biologist will oversee implementation of the noise abatement measures and may conduct noise monitoring and gnatcatcher and vireo surveys as needed, based on their judgment and knowledge of the species, site, and proposed activities, to minimize noise impacts to gnatcatchers and vireos. If the Project Biologist suspects that these measures are ineffective, and project activities may be adversely affecting the gnatcatcher and/or vireo, culpable activities will be suspended within 500 feet of active nesting territories until nesting activity is completed and fledglings are no longer in the area, or until effective avoidance and minimization measures can be identified, implemented, and demonstrated to be effective.
- **BIO-18:** Prior to arrival at the Project site and prior to leaving the Project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds. Special care will be taken during transport, use, and disposal of soils containing invasive weed seeds, and weedy vegetation removed during construction will be properly disposed of to prevent spread into areas outside of the construction area.
- **BIO-19:** Trees that must be removed as part of the Project must be removed during one of the appropriate bat non-pupping seasonal work windows (September 1 to October 15, or March 1 to April 15).
- **BIO-20:** Trees that must be removed as part of the Project identified as "habitat trees", must be trimmed and removed using a two-step process conducted over two consecutive days: During Day 1, "habitat trees" must first be trimmed with initial supervision by the Project biologist. Proper procedures will be provided in the field to the tree cutting crew by the Project biologist, after which the crew can work unsupervised. As part of Day 2 operations, trimmed "habitat trees" must be removed to prevent re-occupation of trimmed trees.
- **BIO-21:** Prior to arrival at the Project site and prior to leaving the Project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds.
- **BIO-22:** All hydroseed and plant mixes must consist of a Project biologist approved plant palate seed mix of native species sourced locally to the Project area.

4.9 Cultural Resources Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		\boxtimes		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		\boxtimes		

Regulatory Setting

CEQA established statutory requirements for establishing the significance of historical resources in Public Resources Code (PRC) Section 21084.1. The CEQA Guidelines (Section 15064.5[c]) also require consideration of potential Project impacts to "unique" archaeological sites that do not qualify as historical resources. The statutory requirements for unique archaeological sites that do not qualify as historical resources are established in PRC Section 21083.2. These two PRC sections operate independently to ensure that potentially significant effects on historical and archaeological resources are considered as part of a proposed Project's environmental analysis. Historical resources, as defined in CEQA Guidelines Section 15064.5, include 1) cultural resources listed in or eligible for listing in the California Register of Historical Resources (California Register); 2) cultural resources included in a local register of historical resources; 3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in one of several historic themes important to California history and development.

Under CEQA, a project may have a significant effect on the environment if the project could result in a substantial adverse change in the significance of a historical resource, meaning the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. This would include any action that would demolish or adversely alter the physical characteristics of an historical resource that convey its historic significance and qualify it for inclusion in the California Register or in a local register or survey that meets the requirements of PRC Section 5020.1(I) and 5024.1(g). PRC Section 5024 also requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places (National Register) listing criteria. PRC Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocation, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

CEQA and the CEQA Guidelines also recommend provisions be made for the accidental discovery of archaeological sites, historical resources, or Native American human remains during construction (PRC Section 21083.2(i) CCR Section 15064.5[d and f]).

The NHPA of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800).

Affected Environment

The Area of Potential Effects (APE) was established as the broader area of interest and includes the full extent of parcels that are partially located within the Area of Direct Impacts (ADI). The APE is approximately 5.5 acres in size and covers potential indirect effects, but does not include any direct proposed Project activities. The ADI encompasses these direct effects and includes construction areas, staging areas, stream diversion activities, and utility relocations. The ADI covers approximately 1.3 acres and encapsulates an approximately 525 foot-long segment of Silverado Canyon Road, including adjoining areas along the roadway margins.

Response to Question a):

Less than Significant Impact. A records search for completed surveys and previously recorded resources within the ADI and a one-mile radius was requested from the South-Central Coastal Information Center (SCCIC), California State University, Fullerton on September 9, 2019. The search examined the Office of Historic Preservation (OHP) Historic Properties Directory, OHP Determinations of Eligibility, and *California Inventory of Historical Resources*. Dokken Engineering also conducted a pedestrian survey, and consulted the current Caltrans Bridge Inventory, available Historical Maps, General Land Office (GLO) Plat Maps, and Soil Survey Maps.

The SCCIC record search identified only one previously documented cultural resource within the one-mile record search boundary, but no resources within the ADI. The identified resource consists of an historic era Forest Service access road located approximately 0.5 miles south and west of the ADI.

Brian S. Marks, Ph.D. conducted an archaeological field survey of the ADI on September 27, 2019. The pedestrian survey was conducted at roughly 5-meter transect intervals. All observed surface exposures and cut banks such as those along the Silverado Canyon Road and the Silverado Creek drainage were inspected for the presence of archaeological deposits, including prehistoric and historic artifacts, archaeological features and/or anthropogenic soils. No indications of surface or subsurface artifacts, archaeological features, or anthropogenic soils were observed as a result of the pedestrian survey.

The bridge is listed as Category 5 in the Caltrans Historic Bridge Inventory, and has been determined not eligible for listing in the National Register. Silverado Canyon Road was determined to meet the criteria for Section 106 Preservation Act and exempt from evaluation; this determination was made by an Architectural Historian who meets Professionally Qualified Staff (PQS) Standards. Accordingly, the proposed Project would have a less than significant impact.

With any Project requiring ground disturbance, there is always the possibility that cultural materials might be unearthed during construction. This impact is considered potentially significant. Implementation of **CUL-1** and **CUL-2**, which address such unexpected discoveries of cultural or archaeological resources, would reduce this impact to a less-than significant level.

Response to Question b):

Less than Significant with Mitigation Incorporated. In an effort to identify archaeological resources that might be affected by the undertaking, a pedestrian survey, background research, and consultation with tribal groups were conducted. A record search conducted at the SSCIC and the NAHC search of the SLF returned negative results for the presence of cultural resources within the ADI.

The pedestrian survey and map research revealed that the ADI has been subject to extensive disturbance associated with infrastructure construction and maintenance, adjacent residential/commercial structural developments, and two episodes of catastrophic high-flow flooding events. A review of the geological formations and soils also determined that the ADI predominantly contains Pleistocene-aged soils and is an unlikely depositional environment. Further, because the proposed Project is essentially an *in-place* replacement, virtually all significant ground disturbing proposed Project activities will occur within previously disturbed areas—with the most extensive Project excavations occurring in conjunction with the removal and replacement of the abutments. For these reasons, the ADI has a low potential both for archaeological and buried archaeological resources.

No archaeological resources were identified within or immediately adjacent to the ADI as a result of these identification efforts. At this time, no further archaeological study is required unless Project plans change to include areas not previously included in the proposed Project ADI or if additional information is received from other sources or special interest groups.

With any project requiring ground disturbance, there is always the possibility that cultural materials might be unearthed during construction. This impact is considered potentially significant. Implementation of **CUL-1** and **CUL-2**, which address such unexpected discoveries of cultural or archaeological resources, would reduce this impact to a less-than significant level.

Response to Question c):

Less than Significant with Mitigation Incorporated. No human remains (including those interred outside of dedicated cemeteries) have been identified within or adjacent to the APE. In the event human remains are unexpectedly encountered as a result of construction activity, the implementation of **CUL-3** would reduce this impact to a less than significant level.

Avoidance, Minimization, and/or Mitigation Measures

CUL-1: Prior to construction, environmental awareness training shall be provided to all construction workers onsite regarding the possibility of encountering subsurface cultural resources.

- **CUL-2:** If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archaeologist can assess the significance of the find and develop a plan for documentation and removal of resources, if necessary.
- CUL-3: Section 5097.94 of the PRC and Section 7050.5 of the California Health and Safety Code protect Native American burials, skeletal remains and grave goods, regardless of age and provide methods and means for the appropriate handling of such remains. If human remains are encountered, California Law requires that work shall halt in that vicinity and the County of Orange Coroner shall be notified immediately to assess the remains. If the coroner determines the human remains to be of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within twenty-four hours of such identification. The NAHC shall then determine the Most Likely Descendant (MLD) of the human remains and contact the MLD immediately. The County, the MLD, and a professional archaeologist retained by the County shall then consult to determine the appropriate plans for treatment and assessment of the human remains and any associated grave goods.

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

Regulatory Setting

NEPA (42 United States Code [USC] Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts. CEQA Guidelines section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

Response to Question a):

Less than Significant Impact. The proposed Project would replace the existing bridge with a single span prestressed, precast concrete voided slab girder bridge. The proposed Project would not permanently alter energy use, as it would not increase the number of vehicle travel lanes or increase carbon emissions. Accordingly, the permanent energy impacts of the proposed Project are less than significant. Direct energy use for the proposed Project would involve the short-term use of energy for construction activities.

The anticipated phases of construction are land clearing, grading, activities for drainage and utilities, and paving. Construction of the proposed Project would induce short-term consumption of energy resources in the form of combustion of fossil fuels in construction vehicles, worker commuter vehicles, and construction equipment. There are limitations on idling vehicles, which if left unchecked, would be a large contributor to wasting energy resources. California regulations (California Code of Regulations, Title 13, Sections 2449[d][3], 2485) limit idling of diesel-powered equipment. Since the cost of fuel is high, contractors are incentivized to be as energy efficient as possible. Construction is estimated to result in a short-term consumption of energy, representing a small demand on local and regional fuel supplies that would be easily accommodated and would be temporary. Fuel consumption was calculated by inputting emissions results from the proposed Project's RCEM into the U.S EPA Greenhouse Gas Equivalencies Calculator (https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator). The proposed Project would result in 84,259 gallons of diesel being used, and 96,519 gallons of gasoline used. Table 12 below shows the estimated annual fuel consumption as a result of constructing the proposed Project.

Table 12: Annual Construction Fuel Consumption

Construction Year	Fuel Consumption (gallons)		
	Diesel Equipment	Gasoline Equipment	
2022	84,259	96,519	

As mentioned before, this represents a small demand on local and regional fuel supplies that would be easily accommodated, and this demand would cease once construction is complete. Moreover, construction-related energy consumption would be temporary and not a permanent new source of energy demand, and demand for fuel would have no noticeable effect on peak or baseline demands for energy. The proposed Project would not result in an inefficient, wasteful, and unnecessary consumption of energy, and the Project's impact on energy would be less than significant.

Response to Question b):

Less than Significant Impact. The proposed Project has been designed to be constructed and operated in the most energy efficient manner practicable. As mentioned in Table 12 above, fuel consumption as a result of construction would not be significant. In addition, the proposed Project would not conflict with Energy Resources Component goals set in Orange County's General Plan – Chapter 6 Resources Element. The proposed Project would not result in additional energy consumption during the operational phase. Therefore, the proposed Project will not conflict with or obstruct any existing state or local plan for renewable energy or energy efficiency. Less than significant impacts are anticipated.

4.11 Geology and Soils Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
ii) Strong seismic ground shaking?			\boxtimes	
iii) Seismic-related ground failure, including liquefaction?			\boxtimes	
iv) Landslides?			\boxtimes	
b) Result in substantial soil erosion or the loss of topsoil?		\boxtimes		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				

e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal system where sewers are not available for the disposal of waste water?		
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	\boxtimes	

Affected Environment

The proposed Project is located within marine sedimentary and metasedimentary rocks, described as Jurassic shale, sandstone, minor conglomerate, chert, slate, limestone, and minor pyroclastic rocks. The subsurface conditions include coarse-grained, well-graded gravels, and silty clay materials.

Response to Question a(i):

Less than Significant Impact. According to the Department of Conservation California Earthquake Hazards Zone Application map, no fault zone crosses or occurs within the proposed Project area. The nearest fault line is the Eagle Fault approximately 5 miles northeast of the proposed Project area. Due to the distance between the proposed Project area and the Eagle Fault, the Project will not directly or indirectly cause the rupture of a known earthquake fault, and therefore impacts would be less than significant.

Response to Question a(ii):

Less than Significant Impact. The existing Silverado Canyon Bridge was built in 1947 and has a low sufficiency rating and is considered Functionally Obsolete. Since the proposed Project will replace the existing deteriorated steel bridge with a new bridge in conformance with current environmental and design standards, it will improve safety conditions for vehicular traffic. Additionally, the proposed Project would adhere to Caltrans' seismic design criteria and construction standards, which will address the safety of the proposed Project in the event of strong seismic shaking and will ensure that the replacement bridge is resistant and stable in the face of strong seismic shaking than the existing bridge. Therefore, impacts due to seismic forces and displacements are avoided or minimized to the extent feasible. Impacts are less than significant.

Response to Question a(iii):

Less than Significant Impact. According to the Department of Conservation California Earthquake Hazards Zone Application map, the proposed Project is not within a liquefaction zone. The nearest liquefaction zone is two miles west of the proposed Project area. Nonetheless, the proposed Project will adhere to Caltrans' seismic design criteria and construction standards, which address the safety and stability of the replacement bridge and ensure its resistance to liquefaction. Therefore, impacts associated with seismic-related ground failure, including liquefaction, are less than significant.

Response to Question a(iv):

Less than Significant Impact. According to the Department of Conservation California Earthquake Hazards Zone Application map, the proposed Project location falls within a landslide zone. However, the proposed Project will comply with the Orange County Grading and Excavation Code. The Grading and Excavation Code sets forth rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments, and establishes administrative requirements for issuance of permits and approval of plans and inspection of grading construction in accordance with the requirements for grading and excavation as contained in the Uniform Building Code. , With the adherence to the Grading and Excavation Code, precautionary measures will be taken to stabilize slops and impacts from landslides would be less than significant.

Response to Question b):

Less than Significant with Mitigation Incorporated. The National Resources Conservation Service (NRCS) identifies soils within the proposed Project vicinity as Soboba cobbly loamy sand, 0 to 15 precent slopes (NRCS 2019). The erodibility factor for this soil is K=0.32, indicating that it is moderately susceptible to detachment and may produce moderate runoff (Caltrans 2021). Demolition and construction activities would disturb top soil, and the disturbance of the top soil and potential erosion resulting therefrom could be exacerbated by stormwater, wind, and/or other construction activities. However, due to the limited footprint of the proposed Project area and measures within the SWPPP, erosion due to surface runoff and top soil loss is not expected in paved and/or properly graded slope areas with controlled surface drainage facilities. Grading and earthwork during construction may result in erosion and sedimentation. This impact would be mitigated through implementation of the SWPPP which would incorporate erosion control methods under mitigation measure **WQ-3** (see 4.14 Hydrology and Water Quality). Erosion and loss of top soil would be a less than significant impact with mitigation incorporated.

Response to Question c):

Less than Significant Impact. The topography within the proposed Project area is generally flat at the bottom of Silverado Canyon with large sloping hills to the north and south of the Project area. Soils within the proposed Project area consist entirely of Soboba cobbly sandy loam, 0 to 15 percent slopes (NRCS 2019). The local geology is comprised of marine sedimentary and metasedimentary rocks, described as Jurassic shale, sandstone, minor conglomerate, chert, slate, limestone, and minor pyroclastic rocks. According to the Department of Conservation California Earthquake Hazards Zone Application map, the sloping hills surrounding the proposed Project area and the Project area itself are within landslide zones. The proposed Project will adhere to Caltrans' seismic design criteria and construction standards and the Orange County Grading and Excavation Code. With adherence to these standards that are used to improve safety from geologic hazards, impacts from on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse is not anticipated. Accordingly, the proposed Project's impact is less than significant.

Response to Question d):

No Impact. Expansive soils contain significant amounts of clay particles that have the ability to give up water (shrink) or take on water (swell). When these soils swell, the change in volume can exert significant pressures on loads that are placed on them, and can result in structural distress and/or damage. According to the NRCS Soil Report and the Caltrans Water Quality Planning Tool, soils within the proposed Project area are not expansive and are classified as Hydrologic Group A. Soils within this group have low runoff

potential and consist of mainly deep, well drained to excessively drained sands or gravelly sands and do not have a high shrink-swell potential (USDA 2014). Soils at the proposed Project site are non-expansive, therefore, no impacts are expected.

Response to Question e):

No Impact. The proposed Project involves replacement of an existing bridge. The proposed Project does not include septic tanks or an alternative wastewater disposal system on the site. Therefore, the proposed Project will not have any impact related to septic tanks or an alternative wastewater disposal system.

Response to Question f):

Less than Significant with Mitigation Incorporated. According to the County General Plan Resources Element, significant paleontological sites in the County are identified based on known outcrops or sites and the underlying geological information. The Figure VI-9 in General Plan Resources Element identifies the area surrounding the proposed Project as the Northern Santa Ana Mountains Paleontology General Area of Sensitivity (OC Public Works 2015). The proposed Project is within an area of Rural/ Suburban Residential use and there is no evidence of fossil deposits in the area, however, it is possible that intact fossil deposits are present at subsurface levels and could be uncovered during ground-disturbing activities. Measures GEO-1 and GEO-2 will be implemented to mitigate any unanticipated discoveries during construction. Therefore, impacts related to paleontological resources are anticipated to be less than significant with mitigation incorporated.

Avoidance, Minimization, and/or Mitigation Measures

See Hydrology and Water Quality mitigation measure **WQ-3**, in Section 4.14 of this document, which includes the implementation of an SWPPP.

- **GEO-1:** Paleontological Monitoring. A qualified paleontologist (the "Project Paleontologist") shall be retained by the Contractor prior to the issuance of a grading permit. The Project Paleontologist will be on-call to monitor ground-disturbing activities and excavations on the Project site following identification of potential paleontological resources by Project personnel. If paleontological resources are encountered during Project construction, ground-disturbing activities will be temporarily redirected from the vicinity of the find. The Project Paleontologist will be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find. If the resource is significant, Mitigation Measure GEO-2 shall apply.
- **GEO-2:** Paleontological Treatment Plan. If a significant paleontological resource(s) is discovered, the Project Paleontologist shall develop a plan of mitigation which shall include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation in the find a local qualified repository, and preparation of a report summarizing the find.

	2 Greenhouse Gas Emissions ould the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?				
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			\boxtimes	

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHGs related to human activity that include CO₂, CH₄, NO_X, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 – tetrafluoroethane), and HFC-152a (difluoroethane).

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) year 2000 levels by 2010, 2) year 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the State's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no federal legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the Environmental Protection Agency (EPA) to regulate GHG as a pollutant under the Clean Air Act (*Massachusetts vs. [EPA]*, 549 U.S. 497 (2007)). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the authority to regulate GHG. Despite the Supreme Court's ruling, there are no promulgated federal regulations to date limiting GHG emissions. ^[1]

^[1] http://www.epa.gov/climatechange/endangerment.html

According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." (See CEQA Guidelines sections 15064(i)(1) and 15130.) To make this determination the incremental impacts of the Project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

The proposed Project would build a new bridge that eliminates the one-lane bridge that currently causes vehicles to idle while waiting for other travelers to cross the bridge. The Project does not make improvements to the rural road leading to and from the bridge, thus does not increasing traffic on the road.

Response to Question a):

Less than Significant Impact. GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from traffic delays due to construction. GHG emissions produced during operations are those that result from potentially increased traffic volumes or changes in automobile speeds. Construction activities are expected to generate CO₂ in quantities that would not individually or cumulatively contribute to a significant impact on the environment, for the reasons discussed below.

Short-Term Construction Emissions

Short-term construction emissions from the proposed Project are anticipated. Emissions from construction equipment would include all equipment powered by gasoline and diesel engines. The RCEM estimates construction equipment effects of criteria pollutants including CO, NOX, VOCs, directly emitted PM₁₀ and PM_{2.5}, and TACs such as diesel exhaust particulate matter. The RCEM also estimates the amount of GHG emissions that would result from construction equipment. These emissions would be temporary and limited to the immediate area surrounding the construction site. The RCEM model was calculated with the proposed Project's construction anticipated to take approximately 8 months. The estimated amount of GHG emissions generated by construction of the proposed Project are shown on Table 12 below. These emissions are included for the sake of disclosure.

Table 13: Estimated Construction Greenhouse Gas Emissions

	MT CO ₂	MT CH₄	MT N₂O	MT CO₂e
2022	935.39	0.27	0.01	857.76

Currently, the South Coast Air Quality Management District does not have any established greenhouse gas emissions thresholds that apply to construction of transportation projects. The only greenhouse gas emissions threshold currently established is 10,000 MT/yr CO₂e for industrial facilities. Although this

threshold is not transportation-related, it could still be used to present a relevant reference point. The proposed Project construction greenhouse gas emissions of 857.76 MT/yr CO₂e do not surpass this threshold. Therefore, construction greenhouse gas emissions are less than significant.

Operational Emissions

The proposed Project would not result in any operational increases in the number of automobiles in the traffic system, therefore, long-term operational emissions are not anticipated. The proposed Project would not add any additional travel lanes and its vehicle capacity would not change. Potential future maintenance or repair of the bridge may be necessary, consistent with what is required for the existing bridge, but it would be short-term and temporary, and it would not result in a substantial source of GHG emissions. Accordingly, the operational GHG emissions are less than significant.

Response to Question b):

Less than Significant Impact. The proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emission. Currently, the County of Orange and SCAQMD have not adopted any GHG reduction measures that would apply to GHG emissions associated with the proposed Project. Since the proposed Project is not a capacity-increasing project, there will be no permanent increase in greenhouse gas emissions that would affect the greenhouse gas emissions reduction goals that the state has set. The proposed Project would remain consistent with the CARB Scoping Plan that was implemented with the goal of reducing statewide greenhouse gas emissions to 2000 levels by 2010, 1990 levels by 2020 and to 80% below 1990 levels by 2050. Since the proposed Project is only anticipated to generate temporary emissions during construction, there would be no impediment in achieving the statewide emissions reduction goals set in the Scoping Plan. Therefore, impacts would be less than significant.

4.13 Hazards and Hazardous Materials Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to public or the environment the the routine transport, use, or disposal of hazardous mater	rough r			\boxtimes	
b) Create a significant hazard to public or the environment the reasonably foreseeable upset accident conditions involving release of hazardous materiathe environment?	rough t and g the				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substan or waste within one-quarter of an existing or proposed so	nces, mile				
d) Be located on a site which is included on a list of hazardo materials sites compiled pur to Government Code Section 65962.5 and, as a result, wo create a significant hazard to public or the environment?	us suant n uld it				
e) For a Project located within airport land use plan or, who such a plan has not been add within two miles of a public or public use airport, would Project result in a safety haz excessive noise for people re or working in the Project are	ere opted, airport the ard or esiding				\boxtimes
f) Impair implementation of or physically interfere with an adopted emergency respons or emergency evacuation pla	e plan		\boxtimes		
g) Expose people or structures, directly or indirectly, to a significant risk of loss, injury death involving wildland fire	or				

Affected Environment

During the Initial Site Assessment prepared in April of 2021 by WRECO (Appendix E), the proposed Project area was evaluated for the presence of Recognized Environmental Conditions (RECs) and/or Activity and Use Limitations (AULs), which are:

REC: "...the presence or the likely presence of any hazardous substances or petroleum hydrocarbons on the (Subject Property) that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum hydrocarbons into structures or into the ground, groundwater, or surface water of the subject property."

AUL: "...an explicit recognition by a federal, tribal, state, or local agency that residual levels of hazardous substances or petroleum hydrocarbons may be present on the property, and that unrestricted use of the property may not be acceptable."

From site reconnaissance, a Preliminary Site Investigation (PSI) is recommended to test bridge materials for asbestos-containing material (ACM) and lead-based paint (LBP) prior to demolition. Soil that will be disturbed around the bridge should be tested for constituents of concern, as indicated below. The RECs identified at the proposed Project area are described in Table 11 below.

Table 14: Summary of RECs and Recommendations

Description	Evidence of REC Found	Recommended Actions
Aerially deposited lead (ADL)	There is potential for elevated levels of lead in exposed soil from historical vehicle emissions, since leaded gasoline was used through the 1970s and the shoulders of the roadway, south of the bridge, may contain ADL.	PSI: - Soil sampling for total lead
Utility Poles and Pole-mounted Transformers	Treated wood poles (utility poles) along the side of the road may contain a variety of chemicals (arsenic, chromium, copper, creosote, PAHs, and pentachlorophenol) that can runoff and impact soil. Polemounted transformers, located to the northeast of the bridge, may leach these constituents of concern into the soil and water.	PSI: - Soil sampling for polychlorinated biphenyls (PCBs), pentachlorophenol (PAHs), and heavy metals. (If utility poles will be moved or replaced, abate transformers prior to construction)
Existing bridge structure may contain LBP and ACM.	Due to the age of the bridge, there is potential for LBP and ACM within the structure.	PSI: - Structural elements sampling for LBP and ACM

Response to Question a):

Less than Significant Impact. The proposed Project would involve the use of heavy equipment for grading, hauling, and materials handling. Use of this equipment may require the use of fuels and other common materials that have hazardous properties (e.g., fuels are flammable). These materials would be used in accordance with all applicable laws and regulations and because they would be used properly, would not pose a hazard to people, animals, or plants. All refueling of construction vehicles and equipment would occur within the designated staging area for the proposed Project as shown in Figure 3 and Figure 8 in this document. The use of hazardous materials would be temporary, and the proposed Project would not include a permanent use or source of hazardous materials. Implementation of BIO-4 will ensure that impacts associated with the active use of potentially hazardous materials during construction would be less than significant.

Response to Question b):

Less than Significant with Mitigation Incorporated. According to the Initial Site Assessment (Appendix E), potential RECs, shown in Table 13 (above), were observed. It is recommended that a PSI be conducted to test bridge materials for ACM and LBP before the existing bridge is demolished. Upset and accident conditions involving the release of hazardous materials into the environment would not be significant based on background research of hazardous materials in the proposed Project vicinity and implementation of avoidance and minimization measures, such as the PSI which would identify potential sources of hazardous materials that could be disturbed during construction so that they could be properly addressed before any disturbance occurs. With the implementation of measures HAZ-1 and HAZ-2, which further require efforts to identify potential sources of hazardous materials and require that steps be taken to prevent their release, impacts will be less than significant.

Additionally, minor operations, maintenance activities, and minor roadway improvements such as repaving and restriping may be required during the life of proposed bridge. These activities could result in the release of hazardous materials (e.g., fuel spillage, VOCs from paint). However, these activities would occur under the guidance of experienced professionals, who, in compliance with federal, state, and local regulations, would be required to properly handle and dispose of hazardous materials. Accordingly, impacts related to the handling of and potential release of hazardous materials would be less than significant with mitigation incorporated.

Response to Question c):

No Impact. The proposed Project is not located within 0.25 miles of an existing or proposed school. The closest school (Earthroots Field School) is approximately 0.3 miles east of the proposed Project area. Accordingly, no impacts related to schools are anticipated.

Response to Question d):

No Impact. According to EnviroStor Database (2020), GeoTracker Database (2020), and Environmental Data Resources (2020) search, the proposed Project is not on a site included in the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, which is also known as the Cortese List. Therefore, no impacts related to a Cortese List site are anticipated.

Response to Question e):

No Impact. The proposed Project is not within an airport land use plan or within the vicinity of a privately-owned airport or airstrip. The closest public airport to the proposed Project site is Corona Municipal Airport located in Riverside County approximately 10.0 miles north of the Project site. No impacts related to an airport land use plan or privately-owned airport or airstrip are anticipated.

Response to Question f):

Less than Significant with Mitigation Incorporated. During construction, half of the bridge would be removed at a time providing one traffic lane for one-way traffic across the bridge. A temporary traffic signal will be installed to control the one-way traffic at each end of the bridge. As the bridge will remain open during construction, emergency response times are not anticipated to be affected during construction. Additionally, a traffic management plan will be prepared as part of the proposed Project, which will further provide for maintenance of traffic flow during construction and for through access for emergency responders. Accordingly, less than significant impacts are anticipated.

Response to Question g):

Less Than Significant with Mitigation Incorporated. According to the California Fire Hazard Severity Zone Viewer Map, the proposed Project is in a Very High Fire Hazard Severity Zone. The County General Plan Safety Element sets forth fire safety policies for the County. The following is related to the proposed Project:

- **Goal 1:** Provide a safe living environment, ensuring adequate fire protection facilities and resources to prevent and minimize the loss of life and property fire.
 - Policy 2: Establish improved development standards for location of new construction, structural design, emergency vehicular access, and detection hardware.
 - Policy 3: To improve building code regulations to provide increased built-in fire protection.
 - Policy 6: To provide technical and policy information regarding structural and wildland fire hazards to developers, interested parties and the general public through all available

The proposed Project involves the replacement of the existing Silverado Canyon Bridge. The proposed Project would involve the use of heavy equipment for grading, hauling, and materials handling. Use of this equipment may require the use of fuels and other common materials that have hazardous properties (e.g., fuels are flammable), and could cause a fire if not properly handled. Also, should a wildland fire occur in the vicinity of the proposed Project site, evacuation across the bridge could be affected during the construction phase due to a single travel lane. With the implementation of measures **WF-1** through **WF-6**, which provide for the preparation of emergency response plans and a traffic management plan that will facilitate continued access for emergency responders, the proposed Project's impact would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

See Biological Resources mitigation measure **BIO-4** in Section 4.8 above, and Wildfire mitigation measures **WF-1** through **WF-6**, in Section 4.24 below.

- **HAZ-1:** A PSI is recommended to test for ADL in soils and for LBP and ACM in the existing bridge structure prior to construction.
- HAZ-2: Any leaking transformers observed during the course of the Project should be considered a potential PCB hazard. A detailed inspection of individual electrical transformers was not conducted for the Phase I Environmental Site Assessment performed for the Project. However, should leaks from electrical transformers (that will either remain within the construction limits or will require removal and/or relocation) be encountered during construction, the transformer fluid will be sampled and analyzed by qualified personnel for detectable levels of PCBs. Should PCBs be detected, the transformer will be removed and disposed of in accordance with Title 22, Division 4.5 of the California Code of Regulations and the direction and/or regulations of any other appropriate regulatory agency. Any stained soil encountered below electrical transformers with detectable levels of PCBs will also be handled and disposed of in accordance with Title 22, Division 4.5 of the California Code of Regulations and the direction and/or regulations of any other appropriate regulatory agency.

4.14 Hydrology and Water Quality Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		\boxtimes		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would:				
i) result in substantial erosion or siltation on- or offsite?		\boxtimes		
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?				
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial sources of polluted runoff?				
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?				

ir C	Conflict with or obstruct mplementation of a water quality ontrol plan or sustainable groundwater management plan?				
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Affected Environment

The proposed Project is not located in any defined groundwater basin or subbasin according to the Department of Water Resources (DWR). The proposed Project site is bounded by the Coastal Plain of the County of Orange (8-001) basin on the west, and the Elsinore-Bedford Coldwater subbasin (8-004.02) to the east (DWR 2020). Much of the water within the proposed Project area is derived from surface water or channeled from other areas.

The proposed Project site is located within the Santa Ana River - Lower Santa Ana River — Santiago Watershed (801.12). The Santa Ana River Watershed is the largest watershed drainage south of the Sierra and is located largely in a highly urbanized and regulated setting. The watershed is approximately 100 miles long and has more than 50 tributary rivers and creeks. The Santa Ana River Watershed spans part of San Bernardino, Riverside, and Orange counties, draining approximately 2,840 square miles (Water Education Foundation 2020).

The Santa Ana River Watershed is divided geographically into upper and lower watersheds that are delineated by the 60-year-old Prado Dam, which is a flood-controlled facility located where the river cuts through the Santa Ana Mountains section of the Coast Ranges (Water Education Foundation 2020).

The Santa Ana River Watershed drains the Santa Ana River that begins in San Bernardino County and flows west into the Pacific Ocean. The largest tributaries include Lytle, Temescal, and Santiago creeks. Like multiple rivers in this area the stream bed is lined with concrete. Much of the area relies on the Santa Ana River and its tributaries due to the climate in Southern California (Water Education Foundation 2020).

Response to Question a):

Less than Significant with Mitigation Incorporated. A Construction Storm Water General Permit is required for the proposed Project, consistent with Construction General Permit Order No. 2009-009-DWQ, issued by the SWRCB, to address storm water runoff, as well as a Clean Water Act Section 401 Water Quality Certification. The construction general permit and Section 401 Water Quality Certification would address grading, clearing, grubbing, and disturbances to the ground, such as stockpiling or excavation. This proposed Project would also require the preparation and implementation of a SWPPP with the intent of preventing products of erosion from moving off site and into receiving waters. The SWPPP includes BMPs to prevent construction pollutants from entering storm water runoff. By preparing the SWPPP and following the stormwater BMPs provided in the SWPPP, the proposed Project impacts to surface water quality would be less than significant with the implementation of mitigation measures WQ-1 and WQ-3.

Response to Question b):

No impact. The proposed Project does not include activities requiring permanent increases in groundwater use. No new buildings that will increase water usage are proposed. The proposed Project would involve only the replacement of an existing bridge, which is not a use that relies on groundwater.

Therefore, the proposed Project does not have the potential to impede sustainable groundwater management of the basin, and no impact will occur.

Response to Question c):

No impact. The proposed Project does not require any alteration of Silverado Creek and would not alter the existing drainage pattern of the area since the new bridge would only add approximately 0.006 of an acre of impervious surface. Therefore, the proposed Project will have no impact.

Response to Question c (i):

Less than Significant with Mitigation Incorporated. The proposed Project will be built in the same location as the existing structure, and no substantial erosion is expected from construction of the replacement bridge. Additionally, **BIO-3** would be implemented during Project construction to reduce and avoid erosion to the extent practicable. Impacts would be less than significant with mitigation incorporated.

Response to Question c (ii):

No impact. The proposed Project will not result in a discernable increase in the volume of storm water runoff into the waterways within the Project area. The new bridge would include open bridge rails allowing surface runoff to flow off the sides of the bridge. Existing drainage patterns would be maintained along the approach roadway. Therefore the proposed Project will have no impact with respect to the volume of stormwater runoff.

Response to Question c (iii):

Less than Significant with Mitigation Incorporated. The proposed Project will not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Additionally, the inclusion of a SWPPP or WPCP as required by **BIO-3** would prevent erosion and protect water quality during construction. Accordingly, the proposed Project's impact would be less than significant with mitigation incorporated.

Response to Question d):

Less than Significant Impact. The proposed Project is located within a community that experiences seasonal floods and within a Special Flood Hazard Area (see FIRMette map, Appendix F). Due to construction constraints, the proposed bridge will be raised approximately three feet to increase hydraulic conveyance under the bridge, but would only be able to pass approximately the 5-year storm event. In the event of inundation, pollutants resulting from standard roadway traffic may be released into the local waterways. However, this risk remains the same with or without the proposed Project, and the Project's impact is therefore less than significant.

The proposed Project is located approximately 17.5 miles northeast of the Pacific Ocean and is not subject to tsunamis. Furthermore, the proposed Project site is not subject to seiche or mudflow. Therefore, the proposed Project will have no impact as relates to the release of pollutants as the result of a tsunami, seiche, or mudflow.

Response to Question e):

No impact. As discussed in response to Question b), above, implementation of the proposed Project would not interfere with groundwater recharge in the groundwater basin and would not affect the local groundwater table. The proposed Project would involve the replacement of a bridge. Thus, there would be no loss of land available for groundwater recharge as the proposed Project would not significantly decrease pervious surfaces, nor would it significantly increase impervious surfaces. The construction of the proposed Project would require minimal amounts of water for concrete mixing and dust abatement. Operation of the proposed Project would not require the use of potable water, with the exception of occasional maintenance. The proposed Project would not conflict with or obstruct a water quality control plan or sustainable groundwater management plan. No impacts are anticipated.

Avoidance, Minimization, and/or Mitigation Measures

To conform to water quality requirements, the proposed Project would implement the following mitigation measures, including BMPs.

- **WQ-1:** BMPs will be incorporated into Project design and Project construction to minimize impacts on the environment:
 - The area of construction and disturbance shall be limited to as small an area as feasible to reduce erosion and sedimentation.
 - Measures shall be implemented during land-disturbing activities to reduce erosion and sedimentation. These measures may include mulches, soil binders and erosion control blankets, silt fencing, fiber rolls, temporary berms, sediment desilting basins, sediment traps, and check dams.
 - Existing vegetation shall be protected where feasible to reduce erosion and sedimentation.
 Vegetation shall be preserved by installing temporary fencing, or other protection devices, around areas to be protected.
 - Exposed soils shall be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events.
 - All construction roadway areas shall be properly protected to prevent excess erosion, sedimentation, and water pollution.
 - All concrete curing activities shall be conducted to minimize spray drift and prevent curing compounds from entering the waterway directly or indirectly.
 - All construction materials, vehicles, stockpiles, and staging areas shall be situated outside of the creek channel. All stockpiles must be covered, as feasible.
 - All erosion control measures and stormwater control measures shall be properly maintained until the site has returned to a pre-construction state.
 - All construction materials shall be hauled off-site after completion of construction.
- **WQ-2:** Any requirements for additional avoidance, minimization, and/or mitigation measures will be contained in the permits obtained from required regulatory agencies, and all such requirements shall be implemented as part of the Project.
- **WQ-3:** The construction contractor shall adhere to the SWRCB Order No. 2012-0006-DWQ NPDES Permit pursuant to Section 402 of the Clean Water Act (CWA). This permit authorizes stormwater and non-stormwater discharges from construction activities. As part of this Permit requirement, an

SWPPP or WPCP will be prepared prior to construction consistent with the requirements of the RWQCB. This SWPPP shall incorporate all applicable BMPs to ensure that adequate measures are taken during construction to minimize impacts to water quality.

4.15 Land Use and Planning Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?				
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				

Affected Environment

The proposed Project area, within Silverado Canyon, is located in a rural setting, surrounded by residential homes on large parcels of land. The proposed Project site is located in the eastern central part of the County of Orange. The area of potential effects for the proposed Project extends to the immediately surrounding properties. The proposed bridge replacement staging area is on a residential property which extends directly north of the bridge (Assessors Parcel Number [APN] 105-172-22).

Response to Question a):

No Impact. The physical division of an established community typically refers to the construction of a linear feature (such as a major highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community or between a community and outlying area. The Silverado Canyon Bridge No. 55C-0177 is one of several bridges that lead out of the canyon and is used to connect rural residential area to the more populated areas of the County to the west. To provide continued access during construction, half of the bridge would be removed at a time, providing one-way traffic across the bridge. A temporary traffic signal will be installed to control the one-way traffic at each end of the bridge. The proposed Project would improve vehicular access through the area and would not physically divide an established community. Therefore, no impacts are anticipated.

Response to Question b):

No Impact. The proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project. According to the Silverado-Modjeska Specific Plan, Silverado Canyon is designated for residential use. The proposed Project involves the replacement of an existing bridge, and will provide access from rural residential to the more populated areas of the County to the west over Silverado Creek along Silverado Canyon Road. The proposed Project supports residential use since it will provide safer vehicular access for residents of Silverado Canyon. Additionally, the specific plan identifies rural road characteristics as roads that do not have curbs, gutters, sidewalks, and street lights unless necessary for safety purposes (County of Orange 1977). To keep with the rural setting and to comply with the specific plan, the replacement bridge would not contain any of those features. The proposed Project is consistent with the Land Use Concept in the Silverado-Modjeska Specific Plan that

states, "Modjeska and Silverado Canyon are devoted primarily to residential use," which the Project would not change, and would not conflict with General Development Guidelines by reducing impacts to contours, vegetation, and the natural landscape to the greatest extent possible with the implementation of the bio mitigation measures within this document. No impacts are anticipated.

4.16 Mineral Resources Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				\boxtimes
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?				

Affected Environment

The County of Orange has significant amounts of mineral resources, which have been utilized to meet development needs in the form of construction aggregate. The mineral land classification in the Silverado Canyon Bridge Project area is Portland Cement Concrete Aggregate. However, the proposed Project itself is not located near any identified mineral resource or mineral resource recovery site.

Response to Question a):

No Impact. The Figure VI-3 Mineral Resources Map in the County of Orange General Plan indicates that the proposed Project area is not located near any mineral resources (County of Orange 2015). The nearest mineral resource area to the proposed Project area is in Trabuco Canyon, which is several miles to the southeast. Due to the distance between the closest mineral resource and the proposed Project area, and because the Project area itself does not contain mineral resources, no impacts to mineral resources are anticipated.

Response to Question b):

No Impact. According to the County of Orange General Plan Resources Element, the proposed Project area is not located within an area that has important mineral resources. The County of Orange General Plan identifies mineral resources that are located in portions of the Santa Ana River, Santiago Creek, San Juan Creek, Arroyo Trabuco and other areas, shown in Figure VI-3. As mentioned above, the nearest mineral resource area is in Trabuco Canyon, which is several miles southeast of the proposed Project area. Additionally, the proposed Project area is not identified as a mineral resource recovery site. Therefore, no impacts associated with the loss of availability of a locally important mineral resource recovery site would occur.

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

Regulatory Setting

State Standards

According to the Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Caltrans 2020), construction noise is regulated by Caltrans Standard Specifications Section 14-8.02, Noise Control, which states the following:

- Do not exceed 86 A-weighted decibels (dBA) at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.
- Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

Local Standards

Orange County General Plan

The County's General Plan Noise Element contains noise guidelines determined by land use. As detailed in the Noise Element's Major Noise Policy 6 (Noise Sensitive Land Uses), all new residential units are required to "have an interior noise level in living areas that is not greater than 45 decibels Community

Noise Equivalent Level (CNEL) with it being understood that standard construction practices reduce the noise level by 12 decibels CNEL with the windows open and 20 decibels CNEL with the windows closed. Higher attenuation than listed above may be claimed if adequate field monitoring or acoustical studies are provided to and approved by the County (Policy 6.3 in Orange County General Plan)." In addition, Policy 6.5 states, that noises affecting "All outdoor living areas associated with new residential uses shall be attenuated to less than 65 decibels CNEL."

Orange County Noise Ordinance

Division 6, Noise Control is the noise ordinance that was adopted by the County to regulate excessive noise generated. The current exterior noise standard thresholds are 55 dBA from 7:00 a.m. to 10:00 p.m. and 50 dBA from 10:00 p.m. to 7:00a.m. However, the County exempts noise associated with construction activities, provided that these activities do not take place between the hours of 8:00p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday.

Affected Environment

The proposed Project area is located in a rural setting, surrounded by the Cleveland National Forest with residential homes on large parcels of land. There are different noise standards that are established to assess potential noise impacts from the proposed Project. They are discussed below.

Response to Question a):

Less than Significant with Mitigation Incorporated. The broad, noise-related goal of the County of Orange, as stated in the County of Orange General Plan, is to: Protect the health, safety, and general welfare of County residents by reducing noise levels and establishing compatible land uses in noise-impacted areas (OC Public Works 2015). The proposed Project will generate temporary increases in noise due to construction activities, but a permanent increase in ambient noise will not occur, as the replacement bridge is anticipated to accommodate the same levels of traffic and use as currently exist without the proposed Project. Table 14 below lists typical noise levels associated with construction equipment.

Table 15: Typical Construction Equipment Noise Levels

Type of Equipment	Typical Noise Level (dBA) 50 feet from Source
Dozer	85
Excavator	88
Concrete Mixer	85
Compactor	82
Loader	85
Backhoe	80
Grader	85
Crane	83
Generator	81
Truck	88

Short-Term Construction Noise

During construction, noise from construction equipment would cause short-term localized increases in ambient noise levels. Residential homes at and around the proposed Project area are generally within 150 feet of construction activities with the highest possible noise level from construction being 88 dBA. The actual noise levels at any particular location would depend on a variety of factors, including the type of construction equipment or activity involved, distance to the source of the noise, obstacles to noise that exist between the receptor (a resident) and the source, time of day, and similar factors. Construction of the proposed Project would result in a temporary, periodic increase in ambient noise levels. However, this increase would be temporary, intermittent, and limited to daytime hours during only the approximately 8-month construction phase of the proposed Project.

Long-Term Operational Noise

The completed Project would have a similar noise environment to existing conditions, as there would be no additional travel lanes added. Therefore, operation of the completed facility would not be in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be less than significant with mitigation.

The proposed Project will comply with the County of Orange Noise Control Ordinance and will not conduct activities that would exceed exterior noise standards during hours defined in Sec. 4-6-7(e). Measure **NOI-1** will be implemented to ensure that any construction noise impacts are reduced to a less than significant level.

Response to Question b):

Less than Significant Impact. Demolition and construction activities that might expose persons to excessive ground-borne vibration or ground-borne noise have the potential to cause a significant impact. Caltrans has collected ground-borne vibration information related to construction/heavy equipment activities. Information from Caltrans indicates that transient vibrations (such as from demolition activity) with a peak particle velocity of approximately 0.035 inches per second may be characterized as barely perceptible, and vibration levels of 0.24 inches per second may be characterized as distinctly perceptible (Caltrans 2020b).

Temporary ground-borne vibration and noise would be associated with the dismantling of the existing bridge and replacement with the new bridge. A Vibratory Roller, Hoe Ram, Large Bulldozer, and a Jackhammer could be used during demolition. Of these, the highest vibration potential may come from the Vibratory Roller which has a value of 0.21 inches per second at 25 feet. This vibration level would be below the threshold for distinctly perceptible of 0.24 inches per second. Noise is typically attenuated at short distances. Since the nearest residential structure to the bridge is approximately 75 feet northeast, it is not anticipated that the proposed Project would excessively impact residents in the area. Therefore, impacts would be less than significant.

Response to Question c):

No Impact. The proposed Project is not located within the vicinity of an airstrip, an airport land use plan, or an airport. The nearest airport is the Corona Municipal Airport in Corona, CA, approximately 10 miles to the north. Therefore, there would be no impact from the proposed Project.

Avoidance, Minimization, and/or Mitigation Measures

NOI-1: To minimize construction-related noise in the area, the following BMPs shall be followed:

- Construction activities will not occur between the hours of 8:00pm and 7:00am on weekdays, including Saturdays, or any time on Sunday or a federal holiday.
- Ensure all internal combustion engine equipment is equipped with the manufacturer recommended muffler.

4.18 Population and Housing Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				

Response to Question a):

No Impact. The proposed Project would have no direct impact on population growth since it does not propose any new construction. The current bridge is on an existing road and is surrounded by existing infrastructure. The proposed Project would replace an existing bridge that would serve existing and planned population growth and reduce traffic. Additionally, employees hired to construct the new bridge would be sourced from the regional employee pool, or would be existing County employees. However, to the extent any of the labor force comes from outside of the region, the construction of this proposed Project will be seasonal work and it is unlikely that these employees would become permanent residents and cause unplanned population growth. Substantial population growth as a result of the proposed Project is considered unlikely as the Project is primarily meant to improve safety of existing infrastructure and accommodate existing traffic volumes, and does not involve the construction of new development, and therefore no impacts are anticipated.

Response to Question b):

No Impact. The proposed Project would replace an existing bridge. Displacement of people in the Project site or surrounding area would not occur. Additionally, the proposed Project has temporary construction easements of less than 0.14 of an acre and permanent acquisitions of approximately 0.006 of an acre, that would impact only a small portion of the surrounding residences and would not impact or displace any residential structures. Therefore, no Project impacts associated with displacement of people or housing would occur.

4.19 Public Services Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact		
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
a-i) Fire protection		\boxtimes				
a-ii) Police protection				\boxtimes		
a-iii) Schools				\boxtimes		
a-iv) Parks				\boxtimes		
a-v) Other public facilities				\boxtimes		

Response to Question a-i):

Less than Significant with Mitigation Incorporated. The Project does not propose a new housing or commercial development requiring additional fire services. The proposed Project will replace the existing facilities (a bridge) in the same location. Because there is no viable detour location, the bridge must remain open as a one-lane bridge and construction will occur in stages. The proposed Project would have a less than significant impact on emergency fire access during Project construction with the incorporation of an Emergency Plan and Traffic Management Plan, which will allow the bridge to remain open and operational during construction; local fire response personnel will be informed of any transportation constraints of the bridge due to construction, so that alternative routes can be identified and utilized during those limited periods. Mitigation measures WF-1 through WF-6, in Section 4.24, will be implemented to minimize and avoid impacts to emergency services, including fire services, during Project construction. Implementation of the proposed Project would not result in the need for altered fire stations. Therefore, with the implementation of the recommended mitigation measures, impacts related to fire protection services would be less than significant.

Response to Question a-ii):

No impact. The proposed Project involves replacement of an existing bridge. The proposed Project does not propose a new housing or commercial development requiring additional police services. Additionally, despite the phased construction of the proposed Project, no transportation constraints, such as traffic delays, are expected for the Orange County Sheriff's Department due to the bridge construction since one lane will be open at all times. No impacts are anticipated.

Response to Question a-iii):

No impact. The proposed Project does not include a residential component; therefore, no direct increase in population would occur requiring additional school facilities. The proposed Project area is located within the enrollment boundaries of Chapman Hills Elementary School (170 North Handy Creek Road), Santiago Middle School (515 North Rancho Santiago), and El Modena High School (3920 Spring Street). Replacing the existing bridge will allow for safer transport and will not increase enrollment at these schools. No impacts are anticipated.

Response to Question a-iv):

No impact. The proposed Project is located in the unincorporated community of Silverado, Orange County, California. Silverado is bounded by the Cleveland National Forest to the east and the Limestone Canyon Regional Park to the west. The proposed Project area is surrounded by rural residential uses that utilize these parks for recreation. The proposed Project would not introduce new residents that would increase the use of these parks. No impacts are anticipated.

Response to Question a-v):

No impact. The proposed Project involves replacement of an existing bridge. The proposed Project would not generate new permanent residents nor increase demand in the surrounding area, as it will primarily increase the safety of existing facilities and better serve the existing traffic volumes. The proposed Project will not have an impact on other public facilities.

Avoidance, Minimization, and/or Mitigation Measures

See Wildfire mitigation measures **WF-1** and **WF-2** in Section 4.24, which include the implementation of a Traffic Management Plan and Construction Fire Prevention Plan as part of the Project.

4.20 Recreation Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				

Response to Question a):

No Impact. As addressed in Impact Question a-iv) in Section 4.19, above, the proposed Project is located in the unincorporated community of Silverado, Orange County, California. Silverado is bounded by the Cleveland National Forest to the east and the Limestone Canyon Regional Park to the west. The proposed Project area is surrounded by rural residential uses that utilize these parks for recreation. The proposed Project would not add residents that would increase the use of these existing parks or other recreational facilities such that substantial physical deterioration would occur. Therefore, no impact is anticipated.

Response to Question b):

No Impact. The proposed Project involves replacement of an existing bridge and does not require the construction or expansion of recreational facilities which would have an adverse effect on the environment. The proposed Project would not induce substantial population growth indirectly through the expansion of infrastructure because it does not involve any expansion of infrastructure. Therefore, there would be no impacts to recreational facilities.

	1 Transportation ould the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				
b)	Would the Project conflict or be inconsistent with CEQA section 15064.3, subdivision (b)?				
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				
d)	Result in inadequate emergency access?				

Response to Question a):

No Impact. The proposed Project area is located within rural residential land use area in the unincorporated community of Silverado. No traffic impact analysis report was done for this Project because the proposed Project is not anticipated to increase traffic on Silverado Canyon Road or nearby roadways. The proposed Project will not increase capacity for vehicles. The County Plan Growth Management Element uses level-of-service (LOS) criteria for signalized intersections. One of the goals established in the Transportation Element of the General Plan is to "provide a circulation plan that facilitates the safe, convenient and efficient movement of people and goods throughout unincorporated areas of the County." A policy under this goal states that Orange County should maintain a peak hour LOS "D" at intersections in unincorporated sections of the County. Since the proposed Project is not anticipated to generate more traffic, LOS would not change as a result of the Project.

The Silverado-Modjeska Specific Plan Circulation Element presents criteria to meet the appropriate rural street standards (Orange County 1977). The proposed Project would not conflict with policies, plans, or programs regarding public transit, pedestrian facilities, or decrease the safety of these facilities. The proposed Project does not include additional improvements that would extend into public transit, pedestrian facilities, or impede construction of these facilities in the future. In addition, the County's Guidelines for Evaluating vehicle miles traveled (VMT) Under CEQA identifies transportation projects that involve rehabilitation and maintenance would not require an induced travel analysis, therefore, the proposed Project would not conflict with any ordinance or policy that involves the circulation system. No impact would occur as a result of the proposed Project.

Response to Question b):

Less than Significant Impact. Section 15064.3(b) of the CEQA Guidelines states that projects considered transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less-than-significant transportation impact. The Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA states, "Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation" (OPR 2018, p. 23). Transportation projects include rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways, roadways, bridges, culverts) and would not add additional motor vehicle capacity. This is also consistent with the County of Orange Guidelines for Evaluating Vehicle Miles Traveled Under CEQA, adopted by the Board of Supervisors on November 17, 2020. Therefore, implementation of the proposed Project would not conflict or be inconsistent with the provisions of CEQA Guidelines Section 15064.3, as it is a transportation project (replacement of an existing bridge) that does not increase or otherwise alter VMT. Impacts would be less than significant and would not require mitigation.

Response to Question c):

No Impact. The proposed Project is not expected to substantially increase hazards due to its design. The proposed bridge will be constructed in the same place as the existing facilities and would improve the bridge facility to meet current safety and geometric standards. The bridge is situated on a curve; however, the proposed bridge deck cannot be curved. Instead, the 4- and 6-foot shoulders will vary slightly to accommodate the curve, match the approaches, and meet the 25 mph design speed. Because the proposed Project will meet all current safety, design, and geometric standards for bridges, no impact is anticipated.

Response to Question d):

Less than Significant with Mitigation Incorporated. The proposed Project will replace the existing facilities (a bridge) in the same location. Because there is no viable detour location, the bridge must remain open during construction (as a one-lane bridge) and construction will occur in stages. Construction activity would be coordinated with community emergency services to inform them of when lane closures would be occurring, as required by measure TRA-1. The proposed Project would have a less than significant impact on emergency fire access during Project construction with the Emergency Plan incorporated under measure WF-5, as set forth in Section 4.24; local fire response personnel will be informed of any transportation constraints of the bridge due to construction.

Avoidance, Minimization, and/or Mitigation Measures

See Wildfire mitigation measure **WF-5**, in Section 4.24, that includes the implementation of an Emergency Plan as part of the Project.

TRA-1: Construction activity would be coordinated with community emergency services to inform them of when lane closures would be occurring.

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

Regulatory Setting

Effective July 1, 2015, CEQA was revised to include early consultation with California Native American tribes and consideration of tribal cultural resources (TCRs). These changes were enacted through Assembly Bill 52 (AB 52). By including TCRs early in the CEQA process, AB 52 intends to ensure that local and Tribal governments, public agencies, and Project proponents would have information available early in the Project planning process to identify and address potential adverse impacts to TCRs. CEQA now establishes that a "project with an effect that may cause a substantial adverse change in the significance of a [TCR] is a project that may have a significant effect on the environment" (PRC §21084.2).

To help determine whether a project may have such an adverse effect, the PRC requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. The consultation must take place prior

to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project (PRC § 21080.3.1). Consultation must consist of the lead agency providing formal notification, in writing, to the tribes that have requested notification of proposed projects within their traditionally and culturally affiliated area. AB 52 stipulates that the NAHC shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated within the project area. If the tribe wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of a formal notification from the lead agency. Once the lead agency receives the tribe's request to consult, the lead agency must then begin the consultation process within 30 days. If a lead agency determines that a project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR, or 2) a party acting in good faith and after reasonable effort concludes that mutual agreement cannot be reached (PRC § 21080.3.2). Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Gov't Code Sec. 6250, et seq.). TCRs are also exempt from disclosure. The term "tribal cultural resource" refers to either of the following:

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

- Included or determined to be eligible for inclusion in the California Register of Historical Resources;
- Included in a local register of historical resources as defined in subdivision (k) of California PRC Section 5020.1; or
- A resource determined by a California lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the PRC Section 5024.1.

Affected Environment

The APE was established as the broader area of interest and includes the full extent of parcels that are only partially located within the ADI. The APE is approximately 5.5 acres in size and covers potential indirect effects, but does not include any direct proposed Project activities. The ADI encompasses these direct effects and includes construction areas, staging areas, stream diversion activities, and utility relocations. The ADI covers approximately 1.3 acres and encapsulates an approximately 525 foot-long segment of Silverado Canyon Road, including adjoining areas along the roadway margins.

Native American National Historic Preservation Act Section 106 Consultation

On September 20, 2019, Dokken Engineering sent a letter and a map depicting the proposed Project vicinity to the NAHC in West Sacramento, asking the commission to review the sacred land files for any Native American cultural resources that might be affected by the proposed Project. The request to the NAHC seeks to identify any Native American cultural resources within or adjacent to the proposed Project area. A list of Native American individuals who might have information or concerns about the proposed Project was also requested. On October 4, 2019, Steven Quinn, Associate Government Program Analyst, replied via letter that a review of the sacred lands file failed to indicate the presence of known Native American cultural resources in the proposed Project area, but provided a list of Native American individuals who might have information or concerns about the Project.

On March 13, 2020, initial consultation letters were mailed to the Native American individuals on the list provided by the NAHC. The letters provided a summary of the proposed Project and requested information regarding comments or concerns the Native American community might have about the Project. For those individuals who did not respond to the letter, a telephone call was placed on May 4, 2020. Those who could not be reached by telephone were e-mailed a copy of the original notification letter on May 28, 2020. The following discussion presents a summary of consultation efforts for each individual on the list provided by the NAHC.

Agua Caliente Band of Cahuilla Indians, Jeff Grubbe, Chairperson.

To date, there has been no response to the initial Section 106 consultation letter dated March 13, 2020. However, Chairperson Grubbe's executive assistant was reached via telephone On May 4, 2020, who indicated that Chairperson Grubbe was unavailable, but provided instructions to directly contact Director/Tribal Historic Preservation Officer Patricia Garcia-Plotkin.

Agua Caliente Band of Cahuilla Indians, Patricia Garcia-Plotkin, Director/Tribal Historic Preservation Officer.

On May 4, 2020, a telephone call to Patricia Garcia-Plotkin was placed, and a detailed message was left. On May 5, 2020, an additional copy of the letter and attendant figure was requested and provided. On May 6, 2020, Tribal Historic Preservation Officer Garcia-Plotkin responded via e-mail, indicating that the proposed Project lies outside Agua Caliente Band territory, and that the band defers to tribal groups with greater proximity. Ms. Garcia-Plotkin reiterated this finding and concluded consultation efforts via e-mail on May 12, 2020.

La Jolla Band of Luiseño Indians, Fred Nelson, Chairperson.

To date, there has been no response to the initial Section 106 consultation letter dated March 13, 2020. A telephone call placed on May 4, 2020 was directed to a full voice mailbox where no message could be recorded. No e-mail address for this recipient was provided by the NAHC.

Pala Band of Mission Indians, Shasta Gaughen, Tribal Historic Preservation Officer.

To date, there has been no response to the initial Section 106 consultation letter dated March 13, 2020, the detailed message left via telephone on May 4, 2020, or the e-mail sent May 28, 2020.

Pauma Band of Luiseño Indians, Temet Aguilar, Chairperson.

To date, there has been no response to the initial Section 106 consultation letter dated March 13, 2020 (certified mail delivery receipt noted as "unclaimed"), the detailed message left via telephone on May 4, 2020, or the e-mail sent May 28, 2020.

Pechanga Band of Mission Indians, Mark Macarro, Chairperson.

Chairperson Macarro's executive assistant Emily Preston was reached via telephone On May 4, 2020. Ms. Preston confirmed that the initial Section 106 consultation letter had been received on March 23, 2020. At Ms. Preston's direction, a copy of the letter was forwarded to Ebru Ozdil (Planning Specialist) and Tina Thompson Mendoza (Executive Administration), however no response was received from either of those individuals. Another copy of the initial Section 106 letter was e-mailed to each of these recipients on May 28, 2020. To date, no further response has been received.

Pechanga Band of Mission Indians, Paul Macarro, Cultural Resources Manager.

To date, there has been no response to the initial Section 106 consultation letter dated March 13, 2020, the detailed message left via telephone on May 4, 2020, or the e-mail sent May 28, 2020.

Rincon Band of Luiseño Indians, Bo Mazzetti, Chairperson.

To date, there has been no response to the initial Section 106 consultation letter dated March 13, 2020, or the detailed message left via telephone on May 4, 2020. A follow up email was not sent to Bo Mazzetti since a letter from the tribe's Tribal Historic Preservation Officer was received on May 8, 2020.

Rincon Band of Luiseño Indians, Jim McPherson, Tribal Historic Preservation Officer.

A May 8, 2020 letter from Cheryl Madrigal, current Tribal Historic Preservation Officer, indicates that the proposed Project lies within Rincon Band territory, and that the Band is not aware of any cultural resources within or in the vicinity of the proposed Project. The Band requested copies of geotechnical or other reports pertaining to depths of ground disturbance associated with proposed Project activities. In response, Dokken provided information regarding anticipated Project surface disturbance depths, along with the results of the record search and pedestrian surface survey via e-mail on May 28, 2020. On June 4, 2020, Ms. Madrigal responded via e-mail communicating that while no tribal cultural resources have yet been identified, subsurface archaeological deposits may still exist. For this reason, the Rincon Band recommended the establishment of protocols to address inadvertent discoveries of "cultural material and human remains", and that should such resources be discovered during construction, an archaeological and tribal monitoring regime should commence, with a final report on those activities provided to the Band. On June 8, 2020, Dokken provided via e-mail details on Caltrans policy regarding inadvertent discoveries and state regulations pertaining to the treatment of human remains (PRC § 5097.94 and Section 7050.5 of the California Health and Safety Code), that cultural awareness and sensitivity training for construction personnel would be administered, and that relevant reporting would be provided upon finalization. No further response has been received to date.

San Luis Rey Band of Mission Indians, Tribal Council and Cultural Department.

To date, there has been no response to the initial Section 106 consultation letter dated March 13, 2020, the detailed message left via telephone on May 4, 2020, or the e-mail sent May 28, 2020.

Soboba Band of Luiseño Indians, Scott Cozart, Chairperson.

To date, there has been no response to the initial Section 106 consultation letter dated March 13, 2020, the detailed message left via telephone on May 4, 2020, or the e-mail sent May 28, 2020.

Soboba Band of Luiseño Indians, Joseph Ontiveros, Director, Cultural Resources Department.

Director Ontiveros was reached via telephone on May 4, 2020, and he indicated that the proposed Project lies outside Soboba Band territory and defers to tribal groups with greater proximity. No further response has been received to date.

Native American AB 52 Consultation

On September 24, 2020, Orange County Public Works sent via U.S Certified Mail initial consultation letters to the following tribes: Juaneño Band of Mission Indians, San Gabriel Band of Mission Indians, Soboba Band of Luiseño Indians, and Gabrieleño Band of Mission Indians - Kizh Nation. These tribes have standing requests to be notified of projects in the area. The Gabrieleño Band of Mission Indians - Kizh Nation and Juaneño Band of Mission Indians responded and requested consultation. The Soboba Band of Luiseño

Indians did not respond to the initial consultation letter within 30 days, thereby concluding AB52 consultation with them.

Gabrieleño Band of Mission Indians - Kizh Nation.

Staff from OC Public Works, Development Services/Planning and OC Public Works, Infrastructure/Project Management consulted with the Kizh Nation via telephone conference on December 3, 2020. Development Services/Planning provided an overview of the proposed Project. Tribal Chairman Salas of the Kizh Nation provided details on the Tribe's history in the region and indicated the creek was historically used as transportation corridors. Chairman Salas also inquired about the construction and soil conditions at the bridge site. No substantial evidence of historical resources in the Project area, either listed or eligible for listing, was presented.

Juaneño Band of Mission Indians.

Staff from OC Public Works, Development Services/Planning and OC Public Works, Infrastructure/Project Management consulted with the Juaneño Band of Mission Indians via telephone conference on November 3, 2020. Development Services/Planning provided an overview of the proposed Project. Joyce Stanfield Perry, Tribal Manager and Cultural Resource Director, inquired about the 2020 wildfire's potential impact on the vegetation near the bridge and soil conditions and requested an inadvertent discovery plan be prepared. No substantial evidence of historical resources in the Project area, either listed or eligible for listing, was presented.

Response to Question a):

No Impact. The proposed Project is not anticipated to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the California Register of Historical Resources (CRHR), or in a local register of historic resources as defined by the Public Resources Code section 21074. There is no TCR listed in the CRHR located either in the APE or the ADI for the proposed Project, and there are no known TCRs in either the APE or the ADI for the Project. During the course of consultation, no TCRs were identified within the proposed Project area, nor was any substantial evidence of TCRs within the Project area, either listed or eligible for listing, was presented. Therefore, no impact is anticipated.

Response to Question b):

Less than Significant with Mitigation Incorporated. The proposed Project is not anticipated to cause adverse impact to any resources considered significant to a California Native American tribe or other resources in the California Register that meet the PRC Section 5024.1 subdivision (c) criteria. No cultural resources were identified during the visual survey, record search, or Native American consultation with either the Gabrieleño Band of Mission Indians - Kizh Nation or the Juaneño Band of Mission Indians. However, with any Project involving ground disturbance, there is a possibility that a previously unknown TCR may be unearthed during construction. This impact would be considered potentially significant and implementation of measures CUL-1 through CUL-3, which address such unexpected discoveries and provide for proper efforts to identify the discovery and avoid or mitigate for impacts, would reduce this impact to a less than significant level, along with Standard Condition (SC) TR-1.

Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measures **CR-1** through **CR-3** within Section 4.9 - Cultural Resources will be implemented for any impacts relating to TCRs along with the Standard Condition below.

SC TR-1: If unanticipated archaeological resources or deposits are discovered during earth-moving activities, OC Public Works (OCPW) will implement the following measures. All work will halt within a 50-foot radius of the discovery. OCPW will have a qualified professional archaeologist assess the significance of the find. If the resources are Native American in origin, the County of Orange shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCPW. Work will not continue within the no-work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either (1) not cultural in origin or (2) not potentially eligible for listing on the California Register of Historic Resources. If a potentially eligible resource is encountered, then the archaeologist and OCPW, as lead agency, in consultation with the Tribe, will arrange for either (1) avoidance of the resource, if possible, or (2) test excavations to evaluate eligibility, and if eligible, an attempt to resolve adverse effects to determine appropriate mitigation. The assessment of eligibility will be formally documented in writing as verification that the provisions in the California Environmental Quality Act for managing unanticipated discoveries and California Public Resources Code, Section 5024, have been met.

4.23 Utilities and Service Systems Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?				
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?				
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?		\boxtimes		

Response to Question a):

Less than Significant Impact. The proposed Project will not result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, and telecommunication facilities. A water line would be temporarily relocated during construction and then

put back in place once the new bridge is constructed. Impacts are anticipated to be less than significant since the temporary relocation of the water line would not cause significant environmental effects.

Response to Question b):

Less than Significant Impact. The proposed Project would not result in the need for new or expanded water supplies. Project construction could temporarily require the use of water resources for dust control during the limited, 8-month construction of the proposed Project. However, water usage would only occur during construction and be negligible in respect to long term water supply since water would not be required for Project operation. Therefore, the proposed Project would result in a less than significant impact on having sufficient water supplies available to serve the Project and reasonably foreseeable future.

Response to Question c):

No Impact. The proposed Project would not include the construction of any wastewater-generating uses nor would it increase the intensity of any existing wastewater generating uses. Therefore, there would be no impact anticipated.

Response to Question d):

Less than Significant Impact. Solid waste associated with removal of the existing bridge will occur as part of the proposed Project. With BMPs incorporated by the construction contractor, which would dispose or recycle waste at an appropriate waste disposal or recycling facility, the generation of solid waste caused by the removal of the existing bridge is expected to be less than significant.

There are three active landfills operated by the County's Waste & Recycling. The landfills are Olinda Alpha, Frank R. Bowerman, and Prima Deshecha. The Frank R. Bowerman Landfill is one of the largest in the state and is permitted for 11,500 tons per day (TPD). Olinda Alpha Land fill is permitted for 8,000 TPD and Prima Deshecha landfill is permitted for 4,000 TPD, Solid waste from the demolition of the existing bridge would be taken to one of the landfills or approved facilities identified by the County's Construction & Demolition (C&D) Program.

Response to Question e):

Less than Significant with Mitigation Incorporated. Project construction would require minimal, short-term solid waste disposal, which would be conducted in compliance with federal, state, and local statutes and regulations related to solid waste. Waste would be generated during construction activities, which include the removal of existing bridge. That waste would be disposed of in accordance with mitigation measure UTL-1, to ensure that all waste generated will be properly disposed of. Therefore, the proposed Project would result in less than significant impact with mitigation incorporated related to solid waste.

Avoidance, Minimization, and/or Mitigation Measures

UTL-1: OC Public Works shall complete and submit a construction and demolition program application to County of Orange Waste & Recycling. The application will identify and estimate the material to be recycled and demolished during construction. Compliance with the plan will be required within

construction contracts. OC Public Works shall prepare a tonnage report for County of Orange Waste & Recycling.

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

Affected Environment

The proposed Project is located in a State Responsibility Area in a "very high fire hazard severity" zone (FHSZ 2021).

Response to Question a):

Less than Significant with Mitigation Incorporated. The proposed Project will replace the existing facilities in the same location. Because there is no viable detour location, the bridge must remain open during construction and construction will therefore occur in stages. The proposed Project would have a less than significant impact on emergency fire access during Project construction with mitigation measures stated under Wildfire **WF-1** incorporated.

Similarly, the proposed Project would regulate transportation over the bridge replacement during phased construction. Because the proposed Project is open to traffic during construction, the Project would have a less than significant impact with mitigation stated under Public Services, in Section 4.19, to inform the community what to do in the event of an emergency evacuation during active construction.

Response to Question b):

Less than Significant with Mitigation Incorporated. The proposed Project involves removal of the existing bridge over Silverado Creek and replacement with a single span prestressed, precast concrete void slab girder bridge. The proposed Project would involve the use of heavy equipment for grading, hauling, and materials handling. Use of this equipment may require the use of fuels and other common materials that have hazardous properties (e.g., fuels are flammable). With the implementation of WF-1 through WF-6, which require specific measures to address and minimize fire risk and to coordinate with emergency services that would be responsible for responding in the event of a fire, the proposed Project would not exacerbate wildfire risks due to slope, prevailing winds, and other factors and thereby expose Project occupants, including construction crews, to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would be less than significant with mitigation incorporated.

Response to Question c):

Less than Significant with Mitigation Incorporated. The proposed Project involves replacement of the existing Silverado Canyon Bridge. A temporary staging area near the bridge will be used for equipment storage and vehicle parking. The construction phase has the potential to exacerbate fire risk. With the implementation of **WF-1** through **WF-6**, that would implement measures to avoid, address, and mitigate fire risk, temporary impacts to the environment would be less than significant.

Response to Question d):

Less Than Significant Impact. The proposed Project would not expose people or structures to downslope or downstream flooding or landslides. Please see section 4.11 Geology and Soils for more information.

Avoidance, Minimization, and/or Mitigation Measures

- **WF-1:** The contractor shall prepare a Traffic Management Plan that includes a Project schedule with specific information on the staged construction and when only one lane will be available, vehicle restrictions during construction including if/when limitation to fire equipment access would occur, location of signage, and a map of work zone limits.
- **WF-2:** The contractor shall prepare a Construction Fire Prevention Plan approved by the Orange County Fire Authority Fire Chief. The Construction Fire Prevention Plan shall implement fire safety measures during construction activities in compliance with the National Fire Protection Association Standard 51B and California Public Resources Code Section 4442.
- WF-3: Hot work shall cease during Red Flag Warning periods declared by the National Weather Service.
- **WF-4:** In the event of a fire on the Project site, all construction activities will immediately stop, the construction crew should use the onsite fire extinguishers to extinguish the fire and dial 911 to inform fire services that a fire has occurred.

- **WF-5:** The contractor shall prepare an Emergency Plan with a Project schedule, including start and end dates for construction phases. The Emergency Plan shall include emergency operational procedures for:
 - Flood emergencies
 - Wildland Fires
 - EMS emergencies
 - Red Flag Days
 - Loss of power

The Emergency Plan shall be provided to the Orange County Fire Authority, Orange County Sherriff, and Orange County Public Works.

- **WF-6:** Two weeks prior to initiation of construction activities, the contractor shall post on the community bulletin board adjacent to the Silverado Canyon Market located at 28192 Silverado Canyon Road, post at the Silverado Community Center located at 27641 Silverado Canyon Road, and mail to the homes and PO Boxes in Silverado Canyon the following:
 - Information on the Orange County Fire Authority's Ready, Set, Go! safety program
 - An emergency evacuation route map
 - The direct phone number of the County of Orange Fire Station number 14 and 15

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

Response to Question a):

Less than Significant with Mitigation Incorporated. Implementation of the proposed Project would have the potential to impact the quality of the existing environment. Potential impacts have been identified related to Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, Tribal Cultural Resources, and Wildfire. Mitigation measures have been defined within this document related to individual resource-specific

impacts to reduce impacts to the greatest extent possible, and which will reduce impacts to those resources to a less than significant level.

Response to Question b):

Less than Significant with Mitigation Incorporated. The proposed Project would have less than significant environmental impacts with mitigation incorporated. Past and current Projects, for example the Modjeska Bridge Replacement Project, in the Project vicinity have been or will be cleared through the CEQA process and potentially significant impacts from those previous or future Projects would have been or will be mitigated. Cumulative effects are not anticipated as this is a standalone Project and nearby Projects and their impacts would be localized and of limited extent.

The following table provides a summary of related projects in the vicinity of the proposed Project site, which is used in the cumulative impact analysis. Figure 6 provides visual representation of the Related Projects.

Table 16: Related Projects

Project	Location	Description
	County of Orange	
Modjeska Canyon Bridge Replacement Project 55C- 0172	Modjeska Canyon near the Cleveland National Forest travelling over Santiago Creek.	The existing bridge is a single span bridge. The Project will replace the existing substandard steel bridge with a 65' long single span prestressed, precast concrete girder bridge.
		Anticipated construction year: 2023
Silverado Canyon Road Bridge 55C-0174	Bridge west of the Project on Silverado Canyon Road.	Replacement bridge over Silverado Canyon Creek due to structural deficiency.
		Anticipated construction year: 2023
Silverado Canyon Road Bridge 55C-0175	Bridge west of the Project on Silverado Canyon Road.	Replacement bridge over Ladd Creek due to structural deficiency.
		Anticipated construction year: 2022

Source: OC Public Works, Infrastructure (2021).

The discussion below provides environmental impacts of the proposed Project, highlighting specific factors that could potentially be cumulatively considerable, but are anticipated to be less than significant due to the incorporated mitigation for this individual Project; it is presumed the other projects identified

above will also incorporate a mitigation and monitoring plan thus avoiding cumulatively considerable impacts.

Biological Resources

The majority of the BSA consists of urban/barren vegetation (3.94 acres of a total of 7.26 acres within the BSA), but with more Riparian Woodland (2.19 acres of the total 7.26 acres within the BSA) within and near the proposed Project Impact Area. Based on biological surveys and database research and inquiries, 12 special status wildlife species were determined to have potential to occur within the BSA. Additionally, the entire proposed Project area is designated critical habitat for the ARTO. Silverado Creek runs east to west through the BSA, but is not identified as an Essential Connectivity Area by CDFW.

Of the 12 species within the BSA, ten species have a low to moderate potential to occur, those are the coastal California gnatcatcher; least Bell's vireo; coast patch-nosed snake; coastal whiptail; orange-throated whiptail; red-diamondback rattlesnake; southern California legless lizard; two-striped gartersnake; west pond turtle; and western mastiff bat. The coast range newt and coast horned lizard are considered to have a high potential to occur. As stated above, there is also critical habitat for the ARTO.

Section 7 Consultation with USFWS will determine mitigation for special status avian species (coastal California gnatcatcher and least Bell's vireo) and ARTO critical habitat. The proposed Project is anticipated to have a "may affect, not likely to adversely affect" impact on these species and critical habitat. Implementation of measures **BIO-1** through **BIO-9** and species-specific measures **BIO-14** through **BIO-16** would reduce impacts to less than significant.

Cultural and Tribal Cultural Resources

Through field surveys, record searches, and database inquiries there were no resources identified that would be significantly impacted. However, there is almost always potential to impact cultural or tribal cultural resources when ground disturbance occurs. With the implementation of avoidance, minimization, and mitigation measures **CUL-1** through **CUL-3**, impacts would be less than significant.

Hydrology and Water Quality

The proposed Project site is located within the Santa Ana River - Lower Santa Ana River — Santiago Watershed (801.12). The Santa Ana River Watershed is the largest watershed drainage south of the Sierra and is located largely in a highly urbanized and regulated setting. The watershed is approximately 100 miles long and has more than 50 tributary rivers and creeks. The Santa Ana River Watershed spans part of San Bernardino, Riverside, and Orange counties, draining approximately 2,840 square miles (Water Education Foundation 2020).

The Santa Ana watershed drains the Santa Ana River that begins in San Bernardino County and flows west into the Pacific Ocean. The largest tributary rivers include Lytle, Temescal, and Santiago creeks. Like multiple rivers in this area the stream bed is lined with concrete. Much of the area relies on the Santa Ana River and its tributaries due to the climate in Southern California (Water Education Foundation 2020).

Impacts to hydrology and water quality would be less than significant with mitigation incorporated. A Construction Storm Water General Permit is required, consistent with Construction General Permit Order No. 2009-009-DWQ, issued by the SWRCB, to address storm water runoff, as well as a Section 401 Water Quality Certification. Those regulatory approvals would address grading, clearing, grubbing, and disturbances to the ground, such as stockpiling, or excavation. This Project would also require the

preparation and implementation of a SWPPP with the intent of keeping all products of erosion from moving off site and into receiving waters. The SWPPP includes BMPs to prevent construction pollutants from entering storm water runoff. By preparing and following the stormwater BMPs provided in the SWPPP, the proposed Project impacts to water quality would be less than significant per implementation of measures **WQ-1** and **WQ-3**.

The proposed Project will be built in the same place as the existing structure, and no substantial erosion is expected from development nor would the Project create runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Additionally, **BIO-3** would be implemented during Project development to reduce erosion during construction.

Wildfire

The proposed Project is located in a State Responsibility Area in a "very high fire hazard severity" zone (FHSZ 2021). In light of current and foreseeable fire risks and extreme wildfire behavior, projects near or within heavily vegetated areas should include specific avoidance, minimization, and mitigation measures relevant to the area. This Project has identified measures to assure impacts to emergency and evacuation plans are reduced to a less than significant level.

Because there is no viable detour location, the bridge must remain open during construction to ensure access, and therefore construction will occur in stages. The proposed Project would have a less than significant impact on emergency fire access during Project construction, with mitigation measures stated under Wildfire **WF-1** incorporated.

Similarly, the proposed Project would regulate transportation over the bridge replacement during phased construction. Because the proposed Project is open to traffic during construction, the Project would have a less than significant impact with mitigation stated under Public Services to inform the community what to do in the event of an emergency evacuation during active construction. **WF-1** through **WF-6** would be implemented to reduce the risk of wildfire to the greatest extent possible and assure protocols are understood and in place should an emergency caused by wildfire occur.

Response to Question c):

Less than Significant with Mitigation Incorporated. The proposed Project would have no adverse effects, directly or indirectly, on humans. The analysis shows that the proposed Project would not have environmental effects causing substantial adverse effects on human beings, directly or indirectly. Impacts associated with Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, Tribal Cultural Resources, and Wildfire would all be reduced to a less than significant level with implementation of avoidance, minimization, and/or mitigation measures.

Chapter 5: Summary of Mitigation Measures

Mitigation Measure	Reporting Milestone	Reporting / Responsible Party	VERIFICA COMPL Initials	
 AQ-1: The Wind Erosion Control BMP (WE-1) from Caltrans' Construction Site Best Management Practices Manual will be implemented as follows: Water shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution. All distribution equipment shall be equipped with a positive means of shutoff. Unless water is applied by means of pipelines, at least one mobile unit shall be available at all times to apply water or dust palliative to the project. If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board requirements. Non-potable water shall not be conveyed in tanks or drain pipes that will be used to convey potable water and there shall be no connection between potable and non-potable supplies. Non-potable tanks, pipes and other conveyances shall be marked "NON-POTABLE WATER – DO NOT DRINK." Materials applied as temporary soil stabilizers and soil binders will also provide wind erosion control benefits. 	Prior to and During Construction	Construction Contractor	IIIIIII	Date
BIO-1: Prior to the start of construction activities, the Project limits in the vicinity of Santiago Creek and associated riparian areas shall be marked with high visibility Environmentally Sensitive Area (ESA) fencing or staking to ensure construction will not further encroach into waters. Plans of the ESA fencing including maps of the project area and fencing limits shall be provided to the Carlsbad Fish & Wildlife Office (CFWO) at least 5 days prior to initiating project impacts. The fencing shall be inspected by the Contractor before the start of each workday and maintained by the Contractor until completion of the Project. The Project biologist will periodically inspect the ESA to ensure sensitive locations remain undisturbed.	Prior to Construction	Construction Contractor		

BIO-2:	Every individual working on the Project must attend a biological awareness training session delivered by a qualified biologist. This training program shall include information regarding special-status species (including pertinent bird, amphibians and reptile species along with photographs), sensitivity of the species to human activities, penalties for violations of Federal and State laws, and the importance of avoiding impacts to wildlife species individuals and associated habitat. The training shall include species identification characteristics, BMPs to be implemented, Project-specific avoidance measures that must be followed, and the steps necessary if the species is encountered at any time. Personnel would attend biological awareness training prior to working within the Project area. The biological awareness training would include a description of special-status species and sensitive habitats and identify mitigation measures that must be complied with.	During Construction	Lead Agency	
BIO-3:	 Contract specifications will include the following best management practices (BMPs), where applicable, to reduce erosion during construction: Implementation of the Project shall require approval of a site-specific Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) that would implement effective measures to protect water quality, which may include a hazardous spill prevention plan and additional erosion prevention techniques. Existing vegetation will be protected in place where feasible to provide an effective form of erosion and sediment control. Roughening and terracing will be implemented to create unevenness on bare soil through the construction of furrows running across a slope, creation of stair steps, or by utilization of construction equipment to track the soil surface. Surface roughening or terracing reduces erosion potential by decreasing runoff velocities, trapping sediment, and increasing infiltration of water into the soil, and aiding in the establishment of vegetative cover from seed. Soil exposure must be minimized through the use of temporary BMPs, groundcover, and stabilization measures. The contractor must conduct periodic maintenance of erosion and sediment-control measures. 	During Construction	Construction Contractor	

BIO-4:	To conform to water quality requirements, the Project must implement the following:			
	 Vehicle maintenance, staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants must be a minimum of 50 ft. from surface waters. Any necessary equipment washing must occur where the water cannot flow into surface waters. The Project specifications will require the contractor to operate under an approved spill prevention and clean-up plan; Construction equipment will not be operated in flowing water; Construction work must be conducted according to site-specific construction plans that minimize the potential for sediment input to surface waters; Raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life shall be prevented from contaminating the soil or entering surface waters; Equipment used in and around surface waters must be in good working order and free of dripping or leaking contaminants; and, Any concrete rubble, asphalt, or other debris from construction must be taken to an approved disposal site. 	During Construction	Construction Contractor	
BIO-5:	During construction, water diversion measures (e.g., sheet piles, sandbags or coffer dams) will be utilized to prevent water from entering the work area when conducting debris removal activities within the stream channel. No work activities shall occur within flowing water within the OHWM of Santiago Creek. Once debris removal activities have occurred the creek channel will be graded back to pre-project conditions.	During Construction	Construction Contractor	
	Immediately upon completion of in-channel work, temporary fills (as needed), and any water diversion materials will be removed in a manner that minimizes disturbance to downstream flows and water quality.			
BIO-6:	Where feasible, riparian vegetation within temporary construction zones would be cleanly cut to ground level and then covered with a layer of clean gravel or topsoil as necessary to protect plant viability and prevent damage to remaining root structures during construction	Prior to Construction	Construction Contractor	

BIO-7:	The Project Biologist must be approved by the Carlsbad Fish and Wildlife Office (CFWO) and will be on site: (a) during all vegetation clearing, and (b) weekly during project construction within 500 feet of gnatcatcher and vireo habitat and arroyo toad critical habitat to monitor compliance with conservation measures. The biologist's name, contact information, and work schedule on the project must be submitted to the CFWO at least 15 working days prior to initiating project impacts. The Project Biologist will be available during pre-construction and construction phases to address protection of sensitive biological resources, monitor ongoing work, and maintain communications with construction personnel to facilitate the appropriate and lawful management of issues relating to biological resources. The Project biologist shall submit a final report to the CFWO within 120 days of project completion including photographs of impact areas and adjacent habitat and documentation that general compliance with conservation measures was achieved. The report will list the number and location of listed species observed, observed listed species behavior, and remedial measures employed to avoid and minimize impacts to listed species. Raw field notes should be available upon request by the CFWO.	During Construction	Construction Contractor	
BIO-8:	All temporary impacts to jurisdictional waters, riparian woodland and ARTO Critical Habitat during Project construction will be restored at a 1:1 ratio and will be re-contoured to preconstruction conditions and seeded with a native seed mix. Where possible, vegetation will be trimmed rather than fully removed with the guidance of the Project biologist. A restoration plan will be developed and submitted to the Carlsbad Fish & Wildlife Office. The plan will be implemented for a minimum of 5 years unless success criteria are met earlier. If maintenance of a riparian area occupied by vireo occurs within the nesting season, a qualified biologist will survey for vireos. Surveys will consist of three visits separated by 2 weeks. Restoration work will be allowed to continue during surveys. However, if vireos are found during visits, a qualified biologist will notify the Carlsbad Fish & Wildlife Office to identify measures to avoid and/or minimize effects.	During and Post Construction	Construction Contractor	
BIO-9:	The County proposes to replant any mature native and non-native trees removed from within natural communities of special concern at a 2:1 ratio within the Santa Ana River watershed, due to the extent of existing development and minimal impact to native habitats resulting from the proposed Project.	Post Construction	Lead Agency	
BIO-10:	A pre-construction clearance survey for special status amphibian and reptile species shall be conducted 24-hours prior to vegetation clearing and/or initiation of construction activities. If any special status wildlife species or wildlife is found, the Project biologist shall relocate the wildlife downstream in the appropriate habitat. If a lapse in Project-related work of 15 days or longer occurs, another focused survey shall occur.	Prior to Construction	Lead Agency	

BIO-11:	 As a first order of construction, the Project contractor shall install wildlife exclusion fencing (WEF) along the Project boundaries within suitable habitat prior to commencement of construction activities or staging of equipment, in order to prevent special status amphibian and reptile species individuals from entering the Project area during construction activities. WEF shall consist of taught silt fencing supported by wooden stakes on the Project side only. WEF shall be buried a minimum of six (6) inches below ground and soil shall be compacted against the sides of the fence for its entire length to prevent special status species from passing under the fence. WEF shall extend 12 to 18 inches above the ground. The contractor shall inspect the WEF daily, and WEF shall be maintained, and repaired where necessary, throughout construction to ensure that it is functional and without defects, that the fencing material is taught and that the bottom edge of the fencing material remains buried. The Project biologist will periodically inspect the WEF to ensure it remains functional and appropriately maintained throughout construction. 	Prior to and During Construction	Construction Contractor	
BIO-12:	Prior to installation of WEF, the Project biologist shall inspect the Project area for wildlife to prevent entrapment within the Project area. If any special status wildlife species or wildlife is found, the Project biologist shall relocate the wildlife downstream in the appropriate habitat. If a lapse in Project-related work of 15 days or longer occurs, another clearance survey shall occur.	Prior to Construction	Lead Agency	
BIO-13:	All construction pipes, culverts, or similar structures that are stored in the Project area for one or more overnight periods shall be either securely capped prior to storage or thoroughly inspected by the contractor and/or the Project biologist for special status wildlife species or other animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If any special status wildlife species or wildlife is found within WEF, construction activities in the vicinity shall cease and the Project biologist shall be notified to relocate the wildlife to suitable habitat outside of the Project area. Only the approved Project biologist shall handle or relocate special status wildlife.	During Construction	Lead Agency	
BIO-14:	To prevent inadvertent entrapment of the special status wildlife species or other animals during construction, the Project biologist and/or construction foreman/manager shall ensure all excavated, steep-walled holes or trenches more than six inches deep are provided with one or more escape ramps constructed of earthen fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by the Project biologist and/or construction foreman/manager.	During Construction	Lead Agency	
BIO-15:	Vegetation removal shall occur outside of the coastal California gnatcatcher and Least Bell's vireo nesting season (February 1 to September 1).	Prior to and During Construction	Construction Contractor	

BIO-16:	If vegetation removal is required during the migratory bird nesting season (February 1 to September 1), a pre-construction nesting bird survey must be conducted within 7 days prior to vegetation removal. Within 2 weeks of the nesting bird survey, all vegetation cleared by the Project biologist will be removed by the contractor. A minimum 300-foot no-disturbance buffer will be established around any active nest of migratory birds and a minimum 500-foot no-disturbance buffer will be established around any nesting raptor or CESA/FESA listed species. The contractor must immediately stop work in the buffer area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the Project biologist and in consultation with wildlife agencies) in the buffer area until a qualified biologist determines the young have fledged. A reduced buffer can be established if determined appropriate by the Project biologist and approved by wildlife agencies.	Prior to Construction	Construction Contractor	
BIO-17:	If project construction, excluding clearing and grubbing, is necessary during the gnatcatcher and vireo breeding season (February 1 to September 1), nesting surveys will be conducted to determine and document the presence/absence of breeding gnatcatchers or vireos. If active nests are identified within 500 feet of the noise generating construction activities and construction noise exceeds ambient noise levels, measures will be implemented to reduce noise to ambient levels at the nest location. The Project Biologist will oversee implementation of the noise abatement measures and may conduct noise monitoring and gnatcatcher and vireo surveys as needed, based on their judgment and knowledge of the species, site, and proposed activities, to minimize noise impacts to gnatcatchers and vireos. If the Project Biologist suspects that these measures are ineffective, and project activities may be adversely affecting the gnatcatcher and/or vireo, culpable activities will be suspended within 500 feet of active nesting territories until nesting activity is completed and fledglings are no longer in the area, or until effective avoidance and minimization measures can be identified, implemented, and demonstrated to be effective.	During Construction	Construction Contractor	
BIO-18:	Prior to arrival at the Project site and prior to leaving the Project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds. Special care will be taken during transport, use, and disposal of soils containing invasive weed seeds, and weedy vegetation removed during construction will be properly disposed of to prevent spread into areas outside of the construction area.	Prior to Construction	Lead Agency	
BIO-19:	Trees that must be removed as part of the Project must be removed during one of the appropriate bat non-pupping seasonal work windows (September 1 to October 15, or March 1 to April 15).	Prior to and During Construction	Lead Agency and Construction Contractor	

BIO-20:	Trees that must be removed as part of the Project identified as "habitat trees", must be trimmed and removed using a two-step process conducted over two consecutive days: During Day 1, "habitat trees" must first be trimmed with initial supervision by the project biologist. Proper procedures will be provided in the field to the tree cutting crew by the project biologist, after which the crew can work unsupervised. As part of Day 2 operations, trimmed "habitat trees" must be removed to prevent reoccupation of trimmed trees.	Prior to and During Construction	Lead Agency and Construction Contractor	
BIO-21:	Prior to arrival at the Project site and prior to leaving the Project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds.	During Construction	Construction Contractor	
BIO-22:	All hydroseed and plant mixes must consist of a biologist approved plant palate seed mix of native species sourced locally to the Project area.	Post Construction	Construction Contractor	
CUL-1:	Prior to construction, environmental awareness training shall be provided to all construction workers onsite regarding the possibility of encountering subsurface cultural resources.	During Construction	Lead Agency	
CUL-2:	If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archaeologist can assess the significance of the find and develop a plan for documentation and removal of resources, if necessary.	During Construction	Construction Contractor	
CUL-3:	Section 5097.94 of the Public Resources Code and Section 7050.5 of the California Health and Safety Code protect Native American burials, skeletal remains and grave goods, regardless of age and provide method and means for the appropriate handling of such remains. If human remains are encountered, California Law requires that work shall halt in that vicinity and the Orange County Coroner shall be notified immediately to assess the remains. If the coroner determines the human remains to be of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within twenty-four hours of such identification. The NAHC shall then determine the Most Likely Descendant (MLD) of the human remains and contact the MLD immediately. The County, the MLD, and a professional archaeologist retained by the County shall then consult to determine the appropriate plans for treatment and assessment of the human remains and any associated grave goods.	During Construction	Lead Agency and Construction Contractor	

GEO-1: Paleontological Monitoring. A qualified paleontologist (the "Project Paleontologist") shall be retained by the Contractor prior to the issuance of a grading permit. The Project Paleontologist will be on-call to monitor ground-disturbing activities and excavations on the Project site following identification of potential paleontological resources by project personnel. If paleontological resources are encountered during implementation of the project, ground-disturbing activities will be temporarily redirected from the vicinity of the find. The Project Paleontologist will be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find. If the resource is significant, Mitigation Measure GEO-2 shall apply.	Prior to and During Construction	Construction Contractor	
GEO-2: Paleontological Treatment Plan. If a significant paleontological resource(s) is discovered, the qualified paleontologist shall develop a plan of mitigation which shall include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation in the find a local qualified repository, and preparation of a report summarizing the find.	During Construction	Construction Contractor	
HAZARDS AND HAZARDOUS WASTE HAZ-1: A PSI is recommended to test for ADL in soils and for LBP and ACM in the existing bridge structure prior to construction.	Prior to Construction	Lead Agency	
HAZ-2: Any leaking transformers observed during the course of the Project should be considered a potential polychlorinated biphenyl (PCB) hazard. A detailed inspection of individual electrical transformers was not conducted for this Phase I Environmental Site Assessment. However, should leaks from electrical transformers (that will either remain within the construction limits or will require removal and/or relocation) be encountered during construction, the transformer fluid should be sampled and analyzed by qualified personnel for detectable levels of PCB's. Should PCBs be detected, the transformer should be removed and disposed of in accordance with Title 22, Division 4.5 of the California Code of Regulations and any other appropriate regulatory agency. Any stained soil encountered below electrical transformers with detectable levels of PCB's should also be handled and disposed of in accordance with Title 22, Division 4.5 of the California Code of Regulations and any other appropriate regulatory agency.	During Construction	Construction Contractor	

HYDROLOGY AND WATER QUALITY			
 WQ-1: BMPs will be incorporated into project design and project construction to minimize impacts on the environment: The area of construction and disturbance shall be limited to as small an area as feasible to reduce erosion and sedimentation. Measures shall be implemented during land-disturbing activities to reduce erosion and sedimentation. These measures may include mulches, soil binders and erosion control blankets, silt fencing, fiber rolls, temporary berms, sediment desilting basins, sediment traps, and check dams. Existing vegetation shall be protected where feasible to reduce erosion and sedimentation. Vegetation shall be preserved by installing temporary fencing, or other protection devices, around areas to be protected. Exposed soils shall be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events. All construction roadway areas shall be properly protected to prevent excess erosion, sedimentation, and water pollution. All construction roadway areas shall be conducted to minimize spray drift and prevent curing compounds from entering the waterway directly or indirectly. All construction materials, vehicles, stockpiles, and staging areas shall be situated outside of the creek channel. All stockpiles must be covered, as feasible. All erosion control measures and stormwater control measures shall be properly maintained until the site has returned to a pre-construction state. All construction materials shall be hauled off-site after completion of construction. 	During Construction	Construction Contractor	
WQ-2: Any requirements for additional avoidance, minimization, and/or mitigation measures will be contained in the permits obtained from required regulatory agencies, and all such requirements shall be implemented as part of the Project.	Prior to Construction	Lead Agency	
WQ-3: The construction contractor shall adhere to the SWRCB Order No. 2012-0006-DWQ NPDES Permit pursuant to Section 402 of the Clean Water Act (CWA). This permit authorizes stormwater and non-stormwater discharges from construction activities. As part of this Permit requirement, an SWPPP or WPCP will be prepared prior to construction consistent with the requirements of the RWQCB. This SWPPP shall incorporate all applicable BMPs to ensure that adequate measures are taken during construction to minimize impacts to water quality.	During Construction	Construction Contractor	

NOISE			
 NOI-1: To minimize construction-related noise in the area, the following Best Management Practices (BMP) shall be followed: Construction activities will not occur between the hours of 8:00pm and 7:00am on weekdays, including Saturdays, or any time on Sunday or a federal holiday. Ensure all internal combustion engine equipment is equipped with the manufacturer recommended muffler. 	During Construction	Construction Contractor	
TRANSPORTATION		Lead Agency	
TRA-1: Construction activity would be coordinated with community emergency services to inform them of when lane closures would be occurring.	During Construction	and Construction Contractor	
TRIBAL CULTURAL RESOURCES			
Follow CUL-1 – CUL-3 under Cultural Resources above and the measure SC TR-1. SC TR-1: If unanticipated archaeological resources or deposits are discovered during earth-moving activities, OC Public Works (OCPW) will implement the following measures. All work will halt within a 50-foot radius of the discovery. OCPW will have a qualified professional archaeologist assess the significance of the find. If the resources are Native American in origin, the County of Orange shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCPW. Work will not continue within the no-work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either (1) not cultural in origin or (2) not potentially eligible for listing on the California Register of Historic Resources. If a potentially eligible resource is encountered, then the archaeologist and OCPW, as lead agency, in consultation with the Tribe, will arrange for either (1) avoidance of the resource, if possible, or (2) test excavations to evaluate eligibility, and if eligible, an attempt to resolve adverse effects to determine appropriate mitigation. The assessment of eligibility will be formally documented in writing as verification that the provisions in the California Environmental Quality Act for managing unanticipated discoveries and California Public Resources Code, Section 5024, have been met.	During Construction	Lead Agency and Construction Contractor	
UTILITIES AND SERVICE SYSTEMS UTL-1: OC Public Works shall complete and submit a construction and demolition program application to County of Orange Waste & Recycling. The application will identify and estimate the material to be recycled and demolished during construction. Compliance with the plan will be required within construction contracts. OC Public Works shall prepare a tonnage report for County of Orange Waste & Recycling.	During and Post Construction	Lead Agency	

WILDFIRE			
WF-1: The contractor shall prepare a Traffic Management Plan that includes a Project schedule with specific information on the staged construction and when only one lane will be available, vehicle restrictions during construction including if/when limitation to fire equipment access would occur, location of signage, and a map of work zone limits.	Prior to and During Construction	Lead Agency and Construction Contractor	
WF-2: The contractor shall prepare a Construction Fire Prevention Plan approved by the Orange County Fire Authority Fire Chief. The Construction Fire Prevention Plan shall implement fire safety measures during construction activities in compliance with the National Fire Protection Association Standard 51B and California Public Resources Code Section 4442.	During Construction	Construction Contractor	
WF-3: Hot work shall cease during Red Flag Warning periods declared by the National Weather Service.	During Construction	Construction Contractor	
WF-4: In the event of a fire on the Project site, all construction activities will immediately stop, the construction crew should use the onsite fire extinguishers to extinguish the fire and dial 911 to inform fire services that a fire has occurred.	During Construction	Construction Contractor	
 WF-5: The contractor shall prepare an Emergency Plan with a Project schedule, including start and end dates for construction phases. The Emergency Plan shall include emergency operational procedures for: Flood emergencies Wildland Fires EMS emergencies Red Flag Days Loss of power The Emergency Plan shall be provided to the Orange County Fire Authority, Orange County Sherriff, and Orange County Public Works. 	During Construction	Construction Contractor	
 WF-6: Two weeks prior to initiation of construction activities, the contractor shall post on the community bulletin board adjacent to the Silverado Canyon Market located at 28192 Silverado Canyon Road, post at the Silverado Community Center located at 27641 Silverado Canyon Road, and mail to the homes and PO Boxes in Silverado Canyon the following: Information on Orange County Fire Authority's Ready, Set, Go! safety program An emergency evacuation route map The direct phone number of Orange County Fire Station number 14 and 15 	Prior to Construction	Lead Agency and Construction Contractor	

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Daily Emis	sion Estimates for -> S	Silverado Canyon Bridg	e Replacement Project		Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust					
Project Phases (Pounds)		ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing		0.99	9.67	10.28	6.44	0.44	6.00	1.64	0.39	1.25	0.02	2,109.07	0.58	0.04	2,136.77
Grading/Excavation		8.22	66.30	88.12	9.62	3.62	6.00	4.52	3.27	1.25	0.16	15,446.37	4.69	0.18	15,616.33
Drainage/Utilities/Sub-Grade		5.72	47.90	59.98	8.48	2.48	6.00	3.52	2.28	1.25	0.11	10,486.68	2.73	0.12	10,591.90
Paving		0.99	12.91	9.66	0.52	0.52	0.00	0.46	0.46	0.00	0.02	2,144.21	0.56	0.05	2,172.08
Maximum (pounds/day)		8.22	66.30	88.12	9.62	3.62	6.00	4.52	3.27	1.25	0.16	15,446.37	4.69	0.18	15,616.33
Total (tons/construction project)		0.50	4.15	5.29	0.67	0.22	0.45	0.29	0.20	0.09	0.01	935.39	0.27	0.01	945.51
Notes:	Project Start Year ->	2022													

 Notes:
 Project Start Year ->
 2022

 Project Length (months) ->
 8

 Total Project Area (acres) ->
 1

 Maximum Area Disturbed/Day (acres) ->
 1

 Water Truck Used? ->
 Yes

Trator Traon Cood. F								
		mported/Exported (yd³/day)		Daily VMT	(miles/day)			
Phase	Soil Asphalt		Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck		
Grubbing/Land Clearing	0	0	0	0	200	40		
Grading/Excavation	9	5	0	0	1,120	40		
Drainage/Utilities/Sub-Grade	0	0	0	0	720	40		
Paving			0	0	320	40		

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -	 Silverado Canyon Bridg 	ge Replacement Project		Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust					
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	PM10 (tons/phase)	PM10 (tons/phase)	PM10 (tons/phase)	PM2.5 (tons/phase)	PM2.5 (tons/phase)	PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.09	0.09	0.06	0.00	0.05	0.01	0.00	0.01	0.00	18.56	0.01	0.00	17.06
Grading/Excavation	0.33	2.63	3.49	0.38	0.14	0.24	0.18	0.13	0.05	0.01	611.68	0.19	0.01	561.01
Drainage/Utilities/Sub-Grade	0.15	1.26	1.58	0.22	0.07	0.16	0.09	0.06	0.03	0.00	276.85	0.07	0.00	253.68
Paving	0.01	0.17	0.13	0.01	0.01	0.00	0.01	0.01	0.00	0.00	28.30	0.01	0.00	26.01
Maximum (tons/phase)	0.33	2.63	3.49	0.38	0.14	0.24	0.18	0.13	0.05	0.01	611.68	0.19	0.01	561.01
Total (tons/construction project)	0.50	4.15	5.29	0.67	0.22	0.45	0.29	0.20	0.09	0.01	935.39	0.27	0.01	857.76

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

AQUATIC RESOURCE DELINEATION REPORT

Silverado Canyon Bridge Replacement Project Orange County Public Works Orange County, California



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Prepared For:

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Executive Summary

Orange County Public Works (County), in cooperation with the California Department of Transportation (Caltrans), is proposing to replace the Silverado Canyon Road Bridge (Bridge No. 55C0177) over Silverado Creek as the Silverado Canyon Road Bridge Replacement Project (Project). The purpose of the Project is to replace the existing deteriorated steel bridge with a new bridge in conformance with current environmental and design standards, both structurally and hydraulically, and have a life expectancy of 75 years minimum. Portions of the roadway connecting to the bridge will require widening and re-profiling to provide for a smooth transition to the new bridge. The existing bridge is a single span and crosses over Silverado Creek. The Project will replace the existing substandard steel bridge; construction funding is provided by the Highway Bridge Program (HBP) and toll credits.

The proposed Project is located in southeastern Orange County, California, approximately 2 miles east of the unincorporated community of Silverado. The Project is within the *Santiago Peak* U.S. Geological Survey (USGS) 7.5-minute quadrangle, Section 10, Township 5 South, Range 7 West of the San Bernardino meridian. The Project site occurs at an elevation of approximately 1,577 feet above mean sea level.

On behalf of the County, Dokken Engineering conducted a delineation to determine the extent of aquatic resources within the approximately 1.27-acre Project study area. The delineation was conducted on September 26, 2019 by Dokken Engineering biologist Andrew Dellas. Delineation procedures followed the technical methods outlined in the Corps of Engineers Wetlands Delineation Manual (U.S. Department of the Army, Corps of Engineers, 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008), and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2010).

The field investigation confirmed that on-site waters are limited to Silverado Creek and total approximately 0.10 acres (420 linear feet) of potential waters of the United States were mapped as intermittent stream.

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Acronyms and Abbreviations

amsl Above mean sea level

BSA Biological Study Area

CDFW California Department of Fish and Wildlife

CEQA California Environmental Quality Act

County Orange County Public Works

IS/MND Initial Study/Mitigated Negative Declaration

NEPA National Environmental Policy Act

NRCS National Resource Conservation Service

NWI National Wetland Inventory

OHWM Ordinary High Water Mark

Project Silverado Canyon Bridge Replacement Project

RWQCB Regional Water Quality Control Board

USACE United States Army Corps of Engineers

Chapter 1. Introduction

1.1 History

Constructed in 1947, the existing Silverado Canyon Bridge is a 43-foot long single span steel I-Girder bridge with a concrete deck. The bridge barrier consists of parapet supported timber posts with a timber rail on one side and metal beam guard railing on the other. There is no approach railing. The bridge is founded on concrete spread footings set on rock. Short, concrete wingwalls flare away from the bridge at all four corners.

The bridge clear width is 24 ft. and is striped for approximately 10-foot lanes. There are no defined shoulders. The concrete parapets on the bridge, at 1'-6", are too narrow to function as sidewalks. The approach roadway is on average 22 ft. wide and is also striped for 10-foot lanes.

A private road intersects Silverado Canyon just northeast of the bridge, which serves several residents downstream of the bridge. The west approach is on a tangent, and the east approach slightly curves to the north. These approaches and 25 mph speed limit provide for adequate sight distance when approaching the bridge. A school crosswalk is just to the east of the bridge, but there are no connecting sidewalks or paths. The most recent County traffic count in March 2018 determined the average daily traffic (ADT) at approximately 2000.

Silverado Creek flows from the east, crossing under the bridge at a sharp angle, and after crossing under the bridge flows adjacent to and parallel to the road for approximately 50 ft. The existing bridge is skewed 45 degrees. The channel was excavated under the bridge approximately 5 to 6 ft. when the bridge was constructed to provide additional conveyance.

The bridge was programmed for replacement based on the low sufficiency rating and Functional Obsolete classification due to the narrow deck.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the Project is to replace the existing deteriorated steel bridge with a new bridge in conformance with current environmental and design standards, both structurally and hydraulically, and have a life expectancy of 75 years minimum. Portions of the roadway connecting to the bridge will require widening and re-profiling to provide for a smooth transition to the new bridge.

1.2.2 Need

The road is the only access for residents of Silverado Canyon east of the bridge; therefore, it is critical to keep it in service and avoid potential deficiencies that would take the bridge out of service. Seasonal floods and wildfires occur in the Santa Ana Mountains that affect this community and quick access from the Canyon is necessary during such events. The existing 2-lane bridge is classified as functionally Obsolete due to the very narrow road width, and the bridge live load capacity does not meet current standards. The bridge must be widened to meet current standards and traffic volumes.

1

A new bridge structure is needed to provide a facility that will meet current federal standards and that will support an increased ADT capacity.

1.3 Project Description

The County, in cooperation with the California Department of Transportation (Caltrans), is proposing to replace the Silverado Canyon Road Bridge (Bridge No. 55C0177) over Silverado Creek. The Silverado Canyon Road Bridge is located in Silverado Canyon within the Cleveland National Forest. The existing bridge is a single span and crosses over Silverado Creek. The Project will replace the existing substandard steel bridge; construction funding is provided by the Highway Bridge Program (HBP) and toll credits.

The proposed replacement structure is a single span prestressed, precast concrete voided slab girder bridge. The bridge will be raised approximately three ft. to increase hydraulic conveyance. However, the bridge will only be able to pass the approximately 5-year storm event. Raising the bridge higher will begin to greatly impact residents to the east of the bridge. The abutments, similar to the existing bridge, will be set on spread footing foundations. Bridge barriers will be side mounted open metal railing, Type ST-70SM.

The replacement bridge will have 12-foot wide lanes and will include a 4-foot shoulder on the north side and 6-foot shoulder on the south side, for a minimum total barrier to barrier width of 34 ft. There are no nearby pedestrian facilities or future plans to place sidewalks along Silverado Canyon Road, but portions of Silverado Canyon Road have sufficient dirt shoulders to provide room for pedestrians. To keep with the rural setting, there will not be sidewalks on the bridge. Silverado Creek is an intermittent stream that flows west under the existing bridge. Construction will require stream diversion (Figure 3. Project Features).

The narrow road and limited right of way require the replacement structure be placed in the same location as the existing structure. There is no viable detour available. The bridge will be replaced utilizing stage construction with approximately ½ the bridge replaced in each stage. The existing 4 girder bridge allows half the bridge to be removed, supporting the remaining half on two girders. Contractor staging areas are limited. The contractor may stage on the closed portion of the existing road approaches. Additional staging locations may need to be utilized.

Utilities include a waterline attached to the south side of the bridge and overhead electrical and communication lines which diagonally cross the bridge. It is likely the overhead lines will need to be relocated for construction. The waterline will need to be relocated to the new bridge.

Typical equipment for roadway construction would include heavy construction earthmoving equipment, dump trucks and pavers. Typical bridge construction equipment would include cranes, excavators, rock hammers, generators, and concrete pumps.

The purpose of this report is to identify and describe aquatic resources in the Survey Area.

This report facilitates efforts to:

- 1. Avoid or minimize impacts to aquatic resources during the Project design process.
- 2. Document aquatic resource boundary determinations for review by regulatory authorities.
- 3. Provide background information regarding aquatic resources in the Survey Area.

Chapter 2. Location

The proposed Project is located in southeastern Orange County, California, approximately 2 miles east of the unincorporated community of Silverado. The Project is within the Santiago Peak U.S. Geological Survey (USGS) 7.5-minute quadrangle, Section 10, Township 5 South, Range 7 West of the San Bernardino meridian. The Project site occurs at an elevation of approximately 1,577 feet above mean sea level. (**Appendix B. Project Location Map**).

Prior to field surveys, the biological study area (BSA) was defined as the proposed Project impact area (**Appendix B. Project Features**). The Project impact area is defined as all areas that will be temporarily or permanently impacted by the Project, including proposed right of way, construction easements, cut and fill limits, potential staging areas, and access roads. The total area of the BSA is approximately 1.27 acres.

Chapter 3. Methods

The jurisdictional delineation was conducted by Dokken Engineering biologist, Andrew Dellas on September 26, 2019. The purpose of the survey was to identify and delineate aquatic resources present within the proposed Project area. The field investigation was conducted in accordance with technical methods outlined in the Corps of Engineers *Wetlands Delineation Manual* (U.S. Department of the Army, Corps of Engineers, 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (U.S. Department of the Army, Corps of Engineers, 2008), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010). Observed OHWM and wetland features were mapped in the field with a R1 GNSS Receiver and ArcGIS software. An *Arid West Ephemeral and Intermittent Streams OWHM Datasheet* was completed for each OHWM GPS location. OHWM data points were taken where primary indicators of the OWHM were delineated in accordance with the technical methods listed above.

Scientific nomenclature for plants cited in this report is in accordance with The Jepson Manual (Baldwin et al., 2012). The indicator status of plants in this report is in accordance with the National Wetland Plant List (NWPL) (Lichvar et al., 2016).

Chapter 4. Existing Conditions

4.1 Landscape Setting

The Project occurs within in unincorporated Orange County in the California Coastal Range Open Woodland-Shrub-Coniferous Forest-Meadow Province ecological subregion (M262), Southern California Mountain and Valley ecological subsection M262B (USDA 2007), and Jepson Floristic Province "Peninsular Ranges" (Jepson 2020). The elevation within the BSA is approximately 1,577 ft. above mean sea level. In the vicinity of the BSA, annual temperatures range from a high of 76 degrees Fahrenheit to a low of 55 degrees Fahrenheit. The average annual rainfall is approximately 13.63 inches (USclimatedata.com 2020). The topography within the BSA is generally flat at the bottom of the Silverado Canyon with large sloping California sage scrub hills to the north and south of the BSA. Soil within the BSA consists entirely of Soboba cobbly sandy loam, 0 to 15 percent slopes (NRCS 2019) (Appendix B. Topographic Map).

4.2 Habitat Communities

The BSA is dominated by urban landscape and riparian woodland. Land use within the BSA is designated as "General Agriculture". Dominant land cover and vegetative communities within the BSA consist of urban/barren, intermittent stream, and riparian woodland (**Appendix B. Vegetation Communities within the BSA**).

Vegetation

Dominant vegetation communities within the BSA include barren/urban, intermittent stream, and riparian woodland (Appendix B. Vegetation Communities within the BSA; C: Representative Photographs; Appendix D. Plant Species Observed).

Urban/Barren

Urban/Barren habitat is man-made infrastructures, defined by the absence of any vegetation, and is constructed with gravel, compacted soil, and/or asphalt. Urban areas within the BSA are categorized as roadway (Silverado Canyon Road) and associated pullouts and driveways along the road. This habitat type is categorized as highly disturbed. Approximately 0.60 acres of the BSA is classified as urban/barren.

Intermittent Stream

Within the BSA, Silverado Creek is classified as intermittent stream. It is dominated by run and riffle areas with cobble, gravel, and sand substrates. Within the intermittent stream habitat, a composition of vegetation accustomed to wet conditions exists including, watercress (*Nasturtium officinale*), California mugwort (*Artemisia douglasiana*), and spearmint (*Menta spicata*). Delineation results determined that approximately 0.10 acres of Silverado Creek are within the BSA.

Riparian Woodland

Riparian woodland is a tall deciduous streamside woodland that is dominated by western sycamore (*Platanus racemosa*) and occasional white alders (*Alnus rhombifolia*). These woodland stands seldom form closed canopies and may even appear as trees scattered in a shrubby thicket. The community is associated with rocky stream beds, such as Silverado Creek, that are subject to high intensity flooding. The intermittent nature these types of drainages favors western sycamore as the dominant species, but white alder increases in abundance on more perennial streams.

Within the BSA, the riparian area is dominated by western sycamore and white alder, with additional vegetation accustomed to generally wet conditions including Pacific willow (*Salix lasiandra*) and Fremont cottonwood (*Populus fremonti*). Approximately 0.57 acres of the BSA is classified as riparian woodland.

4.3 Aquatic Resources

4.3.1 Overview

Based on field survey results, the United State Geological Survey (USGS) Santiago Peak 7½ minute quadrangle topographic map, the USFWS National Wetland Inventory, and FEMA FIRM (Appendix E), the only water feature within the BSA is Silverado Creek. Silverado Creek is an intermittent creek tributary to Santiago Creek as part of the Santa Ana watershed. Within the BSA, Silverado Creek maintains flows throughout most of the year, with complete drying during the summer months. The creek bed has very cobbly loamy sand alluvium substrate from 0 to 10 inches and very gravelly sand from 10 to 60 inches (NRCS 2019).

4.3.2 Aquatic Features Survey Results

Silverado Creek – Intermittent Stream

As a result of the preliminary jurisdictional delineation, WOTUS were identified within the BSA and include Silverado Creek. Silverado Creek is the only hydrological feature within the BSA, flowing east to west through the BSA. The creek is an intermittent tributary water of Santiago Creek. Santiago Creek is known as a navigable water of the U.S. and with direct connectivity to the Silverado Creek; therefore, Silverado Creek is also considered a jurisdictional water of the U.S. Field observations and completion of an *Arid West Ephemeral and Intermittent Streams OHWM Datasheet*, determined the extent of the OHWM of Silverado Creek. Delineation results found that approximately 0.10 acres (420 linear feet) of Silverado Creek are within the BSA (See Table 1 below for aquatic resource details).

The Aquatic Resources Delineation Map illustrates jurisdictional boundaries within the Project area (**Appendix A. Aquatic Resources Delineation Map**).

Table 1: Aquatic Resources within the Survey Area

Site Coordinates (decimal degrees)	Aquatic Resource	Cowardin*	Aquatic Resource Size (acre)	Aquatic Resource Size (linear feet)		
33.746128 N -117.605835 W	Silverado Creek – IS-1	R4SB	0.10	420		
		Total	0.10	420		

^{*}Cowardin et.al. 1979

Chapter 5. References

CDFW. 2020. The California Wildlife Habitat Relationship Classification Scheme. Available at: http://www.dfg.ca.gov/biogeodata/cwhr/wildlife_habitats.asp#Tree

Caltrans. 2020. Caltrans Water Quality Planning Tool. Available at: http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx (accessed May 23, 2019).

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Jepson Flora Project (eds.) 2020. Jepson eFlora. Available at: http://ucjeps.berkeley.edu/IJM.html

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USACE 1987. Corps of Engineers Wetland Delineation Manual. Environmental Laboratory, U.S. Army Corps of Engineers Waterways Experiment Station.

USACE 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.

USACE 2010. A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Arid West of the United States

USFWS 2020. National Wetlands Inventory. United States Fish and Wildlife Service. Available at: https://www.fws.gov/wetlands/data/mapper.HTML



Selected Elements by Common Name

California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria:

Quad IS (Orange (3311777) OR Black Star Canyon (3311776) OR Corona South (3311775) OR Tustin (3311767) OR El Toro (3311766) OR Santiago Peak (3311765))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Allen's pentachaeta	PDAST6X021	None	None Status	G4T1	S1	1B.1
Pentachaeta aurea ssp. allenii						
American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Falco peregrinus anatum						
arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Gila orcuttii						
arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
Anaxyrus californicus						
bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Haliaeetus leucocephalus						
Belding's savannah sparrow	ABPBX99015	None	Endangered	G5T3	S3	
Passerculus sandwichensis beldingi						
Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
Astragalus brauntonii						
burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Athene cunicularia						
California beardtongue	PDSCR1L110	None	None	G3	S2	1B.2
Penstemon californicus						
California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Laterallus jamaicensis coturniculus						
California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Arizona elegans occidentalis						
California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eremophila alpestris actia						
California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Sternula antillarum browni						
California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
California Walnut Woodland						
Canyon Live Oak Ravine Forest Canyon Live Oak Ravine Forest	CTT61350CA	None	None	G3	S3.3	
chaparral nolina	PMAGA080E0	None	None	G3	S3	1B.2
Nolina cismontana						
chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Senecio aphanactis						
chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Abronia villosa var. aurita						
coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Phrynosoma blainvillii						



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Charles	Element Oct	Fodoval Crate	State Status	Clabal Band	State Devil	Rare Plant Rank/CDFW
Species	ARADB30033	Federal Status	State Status	Global Rank G5T4	State Rank S2S3	SSC or FP
coast patch-nosed snake Salvadora hexalepis virgultea	ARADB30033	None	None	G514	5253	55C
, - -	AAAAF02032	None	None	G4	S4	SSC
Coast Range newt Taricha torosa	AAAAFU2U32	none	None	G4	54	330
	ADDDC0000E	Nana	None	CET2O	S3	SSC
coastal cactus wren Campylorhynchus brunneicapillus sandiegensis	ABPBG02095	None	None	G5T3Q	53	55C
	APPP 100001	Threatened	None	CACETOO	S2	SSC
coastal California gnatcatcher Polioptila californica californica	ABPBJ08081	rnreatened	None	G4G5T2Q	32	330
	AD AC 1024 42	Nana	None	CETE	Co	SSC
coastal whiptail Aspidoscelis tigris stejnegeri	ARACJ02143	None	None	G5T5	S3	55C
, , , , ,	ADNII/040040	Nama	Nama	05	0.4	14 /1
Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Accipiter cooperii	DD 4 0751 0 4 4	Maria	Mana	0.470	00	4D 4
Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Lasthenia glabrata ssp. coulteri	DD 01150 1050				0.100	
Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Atriplex coulteri	III IV/1 40 4 400		0 "1.	0004	0.400	
Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Bombus crotchii			-	0	0.4	
Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Atriplex serenana var. davidsonii						
estuary seablite	PDCHE0P0D0	None	None	G3	S2	1B.2
Suaeda esteroa						
ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo regalis						
Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Nasturtium gambelii						
grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Ammodramus savannarum						
great blue heron	ABNGA04010	None	None	G5	S4	
Ardea herodias						
Hall's monardella	PDLAM180E1	None	None	G5T3	S3	1B.3
Monardella macrantha ssp. hallii						
heart-leaved pitcher sage	PDLAM0V020	None	None	G3	S2S3	1B.2
Lepechinia cardiophylla						
intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T2	S2	1B.2
Calochortus weedii var. intermedius						
intermediate monardella	PDLAM180A4	None	None	G4T2?	S2?	1B.3
Monardella hypoleuca ssp. intermedia						
least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Vireo bellii pusillus						
light-footed Ridgway's rail	ABNME05014	Endangered	Endangered	G5T1T2	S1	FP
Rallus obsoletus levipes						



California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
Asio otus						
long-spined spineflower	PDPGN040K1	None	None	G5T3	S3	1B.2
Chorizanthe polygonoides var. longispina						
Los Angeles sunflower	PDAST4N102	None	None	G5TX	SX	1A
Helianthus nuttallii ssp. parishii						
Malibu baccharis	PDAST0W0W0	None	None	G1	S1	1B.1
Baccharis malibuensis						
many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Dudleya multicaulis						
mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Horkelia cuneata var. puberula						
Mexican long-tongued bat	AMACB02010	None	None	G4	S1	SSC
Choeronycteris mexicana						
mimic tryonia (=California brackishwater snail) Tryonia imitator	IMGASJ7040	None	None	G2	S2	
mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
Nama stenocarpa						
northern harrier	ABNKC11011	None	None	G5	S3	SSC
Circus hudsonius						
northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Chaetodipus fallax fallax						
orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis hyperythra						
Pacific pocket mouse	AMAFD01042	Endangered	None	G5T1	S1	SSC
Perognathus longimembris pacificus						
pallid bat	AMACC10010	None	None	G5	S3	SSC
Antrozous pallidus						
Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calochortus plummerae						
pocketed free-tailed bat	AMACD04010	None	None	G4	S3	SSC
Nyctinomops femorosaccus						
quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Euphydryas editha quino						
red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Crotalus ruber						
Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S1S2	
Streptocephalus woottoni						
Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
Riversidian Alluvial Fan Sage Scrub						
Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Lepidium virginicum var. robinsonii						



California Department of Fish and Wildlife California Natural Diversity Database



SpeciesElement CodeFederal StatusState StatusGlobssalt spring checkerbloomPDMAL110J0NoneNoneG4Sidalcea neomexicanaPDASTE80C0NoneNoneG2San Bernardino asterPDASTE80C0NoneNoneG2Symphyotrichum defoliatumAMAFF08041NoneNoneG5T3San Diego desert woodratAMAFF08041NoneNoneG2Neotoma lepida intermediaICBRA03060EndangeredNoneG2San Diego fairy shrimpICBRA03060EndangeredNoneG2Branchinecta sandiegonensisPDPGN040J1NoneEndangeredG2T1Chorizanthe parryi var. fernandinaPDPLAM08030NoneNoneG3Santa Ana River woollystarPDPLM03035EndangeredEndangeredG4T1Eriastrum densifolium ssp. sanctorumAFCJB3705KNoneNoneG5T1Santa Ana speckled daceAFCJB3705KNoneNoneG5T1Catostomus santaanaeAFCJC02190ThreatenedNoneG1	S2 1 S1 S2 1 S1	Rank SSC or FP 2B.2 1B.2 SSC 1B.1 1B.2 1B.1
San Bernardino aster San Diego desert woodrat Neotoma lepida intermedia San Pernandino Valley spineflower Chorizanthe parryi var. fernandina San Miguel savory Clinopodium chandleri Santa Ana River woollystar Eriastrum densifolium ssp. sanctorum Santa Ana speckled dace Rhinichthys osculus ssp. 3 San Bernardino aster PDASTE80C0 None None None PDAMAFF08041 None None Redangered Set Tanahar None Rose Tendangered Ros	S2 S3T4 S3S4 S2 S1 S2 S1	1B.2 SSC 1B.1 1B.2
San Diego desert woodrat Neotoma lepida intermedia San Diego fairy shrimp Branchinecta sandiegonensis San Fernando Valley spineflower Chorizanthe parryi var. fernandina San Miguel savory Clinopodium chandleri Santa Ana River woollystar Eriastrum densifolium ssp. sanctorum Santa Ana speckled dace Rhinichthys osculus ssp. 3 Santa Ana sucker AFCJC02190 Threatened None None Rostra Rostra None Rostra AMAFF08041 None Rostra Rostra None Rostra Santa Anagered Rostra Rostra None Rostra Santa Ana sucker Rostra AFCJC02190 Threatened None G5T3 Santa Ana Sucker	S3S4 S2 S2 S1 S2 S2	SSC 1B.1 1B.2
San Diego desert woodrat Neotoma lepida intermedia San Diego fairy shrimp Branchinecta sandiegonensis San Fernando Valley spineflower Chorizanthe parryi var. fernandina San Miguel savory Clinopodium chandleri Santa Ana River woollystar Eriastrum densifolium ssp. sanctorum Santa Ana speckled dace Rhinichthys osculus ssp. 3 Santa Ana sucker AMAFF08041 None None G573 None None Findangered Findangered G271 CBRA03060 Findangered Findangered Findangered Findangered G471 Findangered G471 AFCJC02190 Threatened None G573	S2 1 S1 S2 1 S1	1B.1 1B.2
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San Fernando Valley spineflower Chorizanthe parryi var. fernandinaPDPGN040J1NoneEndangeredG2T1 G2T1San Miguel savory Clinopodium chandleriPDLAM08030NoneNoneG3Santa Ana River woollystar Eriastrum densifolium ssp. sanctorumPDPLM03035EndangeredEndangeredG4T1 G4T1Santa Ana speckled dace Rhinichthys osculus ssp. 3AFCJB3705KNoneNoneG5T1 G5T1Santa Ana suckerAFCJC02190ThreatenedNoneG1	S2 1 S1	1B.2
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San Miguel savoryPDLAM08030NoneNoneG3Clinopodium chandleriPDPLM03035EndangeredEndangeredG4T1Santa Ana River woollystarPDPLM03035EndangeredEndangeredG4T1Eriastrum densifolium ssp. sanctorumAFCJB3705KNoneNoneG5T1Santa Ana speckled dace Rhinichthys osculus ssp. 3AFCJC02190ThreatenedNoneG1	1 S1	
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Rhinichthys osculus ssp. 3 Santa Ana sucker AFCJC02190 Threatened None G1		000
Santa Ana sucker AFCJC02190 Threatened None G1	1 S1	SSC
	S1	
Calosionus sandanae	31	
	64	40.0
Santiago Peak phacelia PDHYD0C4G1 None None G1 Phacelia keckii	S1	1B.3
	00	40.0
south coast saltscale PDCHE041C0 None None G4	S2	1B.2
Atriplex pacifica	OND	
Southern California Arroyo Chub/Santa Ana Sucker CARE2330CA None None GNR Stream Southern California Arroyo Chub/Santa Ana Sucker	SNR	
Stream	0.0	000
southern California legless lizard ARACC01060 None None G3	S 3	SSC
Anniella stebbinsi	_	
southern California rufous-crowned sparrow ABPBX91091 None None G5T3 Aimophila ruficeps canescens	3 S3	WL
southern California saltmarsh shrew AMABA01104 None None G5T1	1? S1	SSC
Sorex ornatus salicornicus		
Southern Coast Live Oak Riparian Forest CTT61310CA None G4 Southern Coast Live Oak Riparian Forest	S4	
Southern Coastal Salt Marsh CTT52120CA None None G2	S2.1	
Southern Coastal Salt Marsh		
Southern Cottonwood Willow Riparian Forest CTT61330CA None None G3	\$3.2	
Southern Cottonwood Willow Riparian Forest		
southern grasshopper mouse AMAFF06022 None None G5T3	3 S3	SSC
Onychomys torridus ramona		
Southern Interior Cypress Forest CTT83230CA None None G2	S2.1	
Southern Interior Cypress Forest	-	
Southern Riparian Forest CTT61300CA None None G4 Southern Riparian Forest	\$4	

Report Printed on Thursday, July 30, 2020



California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Riparian Scrub						
Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Southern Sycamore Alder Riparian Woodland						
southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
Centromadia parryi ssp. australis						
Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
Southern Willow Scrub						
steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	
Oncorhynchus mykiss irideus pop. 10						
Stephens' kangaroo rat	AMAFD03100	Endangered	Threatened	G2	S2	
Dipodomys stephensi						
summer holly	PDERI0B011	None	None	G3T2	S2	1B.2
Comarostaphylis diversifolia ssp. diversifolia						
Tecate cypress	PGCUP040C0	None	None	G2	S2	1B.1
Hesperocyparis forbesii						
thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
Brodiaea filifolia						
ricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Agelaius tricolor						
two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Thamnophis hammondii						
Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Valley Needlegrass Grassland						
western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Eumops perotis californicus						
western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Emys marmorata						
western spadefoot	AAABF02020	None	None	G3	S3	SSC
Spea hammondii						
western yellow bat	AMACC05070	None	None	G5	S3	SSC
Lasiurus xanthinus						
western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coccyzus americanus occidentalis				_		
white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Pseudognaphalium leucocephalum	ADAU(0.00.)			0.5	0004	
white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Elanus leucurus	ADAM (#2000)			0.4	0.400	000
yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Coturnicops noveboracensis yellow warbler	ABPBX03010	None	None	G 5	S3S4	SSC



California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Icteria virens						
Yuma myotis	AMACC01020	None	None	G5	S4	
Myotis yumanensis						

Record Count: 105



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Carlsbad Fish And Wildlife Office 2177 Salk Avenue - Suite 250 Carlsbad, CA 92008-7385 Phone: (760) 431-9440 Fax: (760) 431-5901





In Reply Refer To: December 01, 2020

Consultation Code: 08ECAR00-2020-SLI-1395

Event Code: 08ECAR00-2021-E-00665

Project Name: Silverado Canyon Bridge Replacement Project

Subject: Updated list of threatened and endangered species that may occur in your proposed

project location, and/or may be affected by your proposed project

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

Attachment(s):

Official Species List

Official Species List

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

This species list is provided by:

Carlsbad Fish And Wildlife Office 2177 Salk Avenue - Suite 250 Carlsbad, CA 92008-7385 (760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2020-SLI-1395

Event Code: 08ECAR00-2021-E-00665

Project Name: Silverado Canyon Bridge Replacement Project

TRANSPORTATION Project Type:

Project Description: The County, in cooperation with the California Department of

Transportation (Caltrans), is proposing to replace the Silverado Canyon Road Bridge (Bridge No. 55C0177) over Silverado Creek. The Silverado Canyon Road Bridge is located in Silverado Canyon within the Cleveland National Forest. The existing bridge is a single span and crosses over Silverado Creek. The Project will replace the existing substandard steel bridge; construction funding is provided by the Highway Bridge Program

(HBP) and toll credits.

The proposed replacement structure is a single span prestressed, precast concrete voided slab girder bridge. The bridge will be raised approximately three ft. to increase hydraulic conveyance. However, the bridge will only be able to pass the approximately 5-year storm event. Raising the bridge higher will begin to greatly impact residents to the east of the bridge. The abutments, similar to the existing bridge, will be set on spread footing foundations. Bridge barriers will be side mounted open metal railing, Type ST-70SM.

The replacement bridge will have 12-foot wide lanes and will include a 4foot shoulder on the north side and 6-foot shoulder on the south side, for a minimum total barrier to barrier width of 34 ft. There are no nearby pedestrian facilities or future plans to place sidewalks along Silverado Canyon Road, but portions of Silverado Canyon Road have sufficient dirt shoulders to provide room for pedestrians. To keep with the rural setting, there will not be sidewalks on the bridge. Silverado Creek is an intermittent stream that flows west under the existing bridge. Construction will require stream diversion (Figure 3. Project Features).

The narrow road and limited right of way require the replacement structure be placed in the same location as the existing structure. There is no viable detour available. The bridge will be replaced utilizing stage construction with approximately $\frac{1}{2}$ the bridge replaced in each stage. The existing 4 girder bridge allows half the bridge to be removed, supporting the remaining half on two girders. Contractor staging areas are limited. The contractor may stage on the closed portion of the existing road

approaches. Additional staging locations may need to be utilized.

Utilities include a waterline attached to the south side of the bridge and overhead electrical and communication lines which diagonally cross the bridge. It is likely the overhead lines will need to be relocated for construction. The waterline will need to be relocated to the new bridge.

Typical equipment for roadway construction would include heavy construction earthmoving equipment, dump trucks and pavers. Typical bridge construction equipment would include cranes, excavators, rock hammers, generators, and concrete pumps.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.746117431661254N117.60581407026658W



Counties: Orange, CA

Endangered Species Act Species

Species profile: https://ecos.fws.gov/ecp/species/3762

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo <i>Vireo bellii pusillus</i>	Endangered
There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	J
Southwestern Willow Flycatcher Empidonax traillii extimus	Endangered
There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	
Amphibians	
NAME	STATUS
Arroyo (=arroyo Southwestern) Toad <i>Anaxyrus californicus</i> There is final critical habitat for this species. Your location overlaps the critical habitat.	Endangered

Crustaceans

NAME STATUS

Riverside Fairy Shrimp Streptocephalus woottoni

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/8148

Flowering Plants

NAME STATUS

Santa Monica Mountains Dudleyea Dudleya cymosa ssp. ovatifolia

Threatened

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2538

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME STATUS

Arroyo (=arroyo Southwestern) Toad *Anaxyrus californicus* https://ecos.fws.gov/ecp/species/3762#crithab Final



Inventory of Rare and Endangered Plants

*The database used to provide updates to the Online Inventory is under construction. <u>View updates and changes made since May 2019 here</u>.

Plant List

40 matches found. Click on scientific name for details

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3], Found in Quads 3311777, 3311766, 3311765, 3311767 3311775 and 3311776;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	1B.1	S2	G5T2?
Allium munzii	Munz's onion	Alliaceae	perennial bulbiferous herb	Mar-May	1B.1	S1	G1
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	1B.1	S2	G2
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	1B.2	S1S2	G3
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	1B.2	S2	G4
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S1	G5T1
Baccharis malibuensis	Malibu baccharis	Asteraceae	perennial deciduous shrub	Aug	1B.1	S1	G1
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	1B.1	S2	G2
Calochortus weedii var. intermedius	intermediate mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	1B.2	S2	G3G4T2
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)	3	S4	G4
Centromadia parryi ssp. australis	southern tarplant	Asteraceae	annual herb	May-Nov	1B.1	S2	G3T2
Centromadia pungens ssp. laevis	smooth tarplant	Asteraceae	annual herb	Apr-Sep	1B.1	S2	G3G4T2
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Polygonaceae	annual herb	Apr-Jul	1B.1	S1	G2T1
<u>Chorizanthe polygonoides var.</u> <u>longispina</u>	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul	1B.2	S3	G5T3
Chorizanthe xanti var. leucotheca	white-bracted spineflower	Polygonaceae	annual herb	Apr-Jun	1B.2	S3	G4T3
Clinopodium chandleri	San Miguel savory	Lamiaceae	perennial shrub	Mar-Jul	1B.2	S2	G3
Comarostaphylis diversifolia ssp. diversifolia	summer holly	Ericaceae	perennial evergreen shrub	Apr-Jun	1B.2	S2	G3T2
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1
<u>Dudleya cymosa ssp. ovatifolia</u>	Santa Monica dudleya	Crassulaceae	perennial herb	Mar-Jun	1B.1	S1	G5T1
<u>Dudleya multicaulis</u>	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Polemoniaceae	perennial herb	Apr-Sep	1B.1	S1	G4T1
Hesperocyparis forbesii	Tecate cypress	Cupressaceae	perennial evergreen tree		1B.1	S2	G2
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1	S1	G4T1
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
Lepechinia cardiophylla	heart-leaved pitcher sage	Lamiaceae	perennial shrub	Apr-Jul	1B.2	S2S3	G3
Monardella hypoleuca ssp. intermedia	intermediate monardella	Lamiaceae	perennial rhizomatous herb	Apr-Sep	1B.3	S2?	G4T2?
Monardella hypoleuca ssp. lanata	felt-leaved monardella	Lamiaceae	perennial rhizomatous herb	Jun-Aug	1B.2	S3	G4T3
Monardella macrantha ssp. hallii	Hall's monardella	Lamiaceae	perennial rhizomatous herb	Jun-Oct	1B.3	S3	G5T3
Nama stenocarpa	mud nama	Namaceae	annual / perennial herb	Jan-Jul	2B.2	S1S2	G4G5
Nasturtium gambelii	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	1B.1	S1	G1
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	(Mar)May-Jul	1B.2	S3	G3
Penstemon californicus	California beardtongue	Plantaginaceae	perennial herb	May-Jun(Aug)	1B.2	S2	G3
Pentachaeta aurea ssp. allenii	Allen's pentachaeta	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G4T1
Phacelia keckii	Santiago Peak phacelia	Hydrophyllaceae	annual herb	May-Jun	1B.3	S1	G1
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug- Nov(Dec)	2B.2	S2	G4
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4
Suaeda esteroa	estuary seablite	Chenopodiaceae		(May)Jul- Oct(Jan)	1B.2	S2	G3
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov(Dec)	1B.2	S2	G2

Suggested Citation

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http://www.rareplants.cnps.org [accessed 30 July 2020].

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Table 1. Special Status Species with Potential to Occur in the Project Vicinity

Common Name	Species Name	Statu	ıs	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Amphibian Spe	cies					
Arroyo toad	Anaxyrus californicus	Fed: State: CDFW:	E SSC	Inhabits semi-arid regions near washes or intermittent streams of valley foothill, desert riparian, desert wash, or similar communities. Often associated with riparian areas containing willows, sycamores, oaks, and cottonwoods. Requires exposed sandy streamsides with stable terraces for burrowing, scattered vegetation for shelter, and sandy or gravelly bottom pools with slow moving water for breeding. Breeding is aquatic. Mating and egg laying occurs from March to July.	СН	Presumed Absent: Silverado Creek is an intermittent stream with a low flow and could potentially provide adequate breeding pools and slow moving water during the breeding season, which occurs after the rain season. However, there are no recent (<20 years) CNDDB occurrences within 10 miles of the BSA. In addition to the lack of recent occurrences within 10 miles, a 2019 Arroyo Toad (ARTO) habitat assessments and protocol presence/absence surveys for Santiago Creek, Silverado Creek, and Trabuco Creek in Orange County, CA was conducted by ICF. Habitat assessments found that stream reaches of Santiago Creek within Modjeska Canyon do have find suitable habitat for ARTO. Additionally, protocol presence/absence surveys resulted in no observations of ARTO individuals, egg strands, larvae, or juveniles, and no male ARTO calls were detected during any survey efforts. The combined findings of habitat assessments and protocol level surveys confirmed the absence of ARTO in Modjeska Canyon, Silverado Creek, Santiago Creek (from Modjeska Canyon to Irvine Lake), and most of Trabuco Creek. See ICF 2019 ARTO Results report in Appendix H for further details.

Common Name	Species Name	Statı	JS	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Coast Range newt	Taricha torosa	Fed: State: CDFW:	 SSC	Most commonly inhabits wet forests, valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub, and mixed chaparral communities, but may utilize annual grassland and mixed conifer habitats. In southern California, the species inhabits drier chaparral, oak woodlands, and grasslands. Adults require surface cover such as rocks, logs, mammal burrows, rock fissures, or human-made structures. Breeds within intermittent streams, rivers, permanent ponds, semi-permanent ponds, lakes, and large reservoirs. Breeds from fall through late spring. In the spring, adults return to subterranean summer aestivating sites; rarely travels more than 3,300 ft. between aestivation burrow and breeding site. Migrations are delayed until as late as May at higher elevations of the Sierra (sea level-6,000 ft.).	НР	High Potential: The BSA does contain hardwood sycamore/alder riparian habitat and is adjacent to sloped chaparral habitat. Silverado Creek, which runs through the BSA, is an intermittent stream and could serve as breeding habitat for the species. The nearest historic (1999) CNDDB occurrence of the species is within the general area of the USGS 7.5-minute quadrangle of Black Star Canyon, which is approximately 3 miles north of the project area. Additionally, a recent (2015) iNaturalist research grade observation documented the species within 0.5 mile of the BSA. Due to the presence of potentially suitable habitat, and recent occurrences, the species is considered to have a high potential to occur within the BSA.
Northern leopard frog	Lithobates pipiens	Fed: State: CDFW:	 SSC	The species inhabits grassland, wet meadows, potholes, forests, woodland, brushlands, springs, canals, bogs, marshes, and reservoirs. Generally prefers permanent water with abundant vegetation. The species is well adapted to cold conditions. Can stray far from water in summer, into habitats with sufficient vegetative cover for concealment, such as hay fields and grassy woodlands. Hibernates in winter under large, deep bodies of water that do not freeze, under rocks or logs. Breeding activities occur from March to July, after the snow melt.	А	Presumed Absent: The BSA does not contain suitable permanent water habitat for the species. Silverado Creek is an intermittent stream and cannot provide a permanent water source for the species. Additionally, there is only one historic (1957) CNDDB occurrence of the species, approximately 6.5 miles northwest of the project area within Irvine Lake. Due to the lack of suitable aquatic habitat and the lack of recent, nearby occurrences, the species is presumed absent.
Western spadefoot	Spea hammondii	Fed: State: CDFW:	 SSC	Inhabits open areas with sandy or gravelly soils within mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Burrows	А	Presumed Absent: The BSA does not contain suitable vernal pool breeding habitat or open areas with sandy or gravelly soils. The nearest CNDDB occurrence of the species is

Common Name	Species Name	State	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				underground from most of the year and is active above ground during rainfall. Requires vernal, shallow, temporary pools formed by heavy winter rains for reproduction. These pools must be free of bullfrogs, fish, and crayfish. Breeds from late winter to March.		approximately 2.4 miles northwest of the project area (2017). Due to the lack of suitable habitat and local occurrences, the species is presumed absent from the BSA.
Bird Species						
American peregrine falcon	Falco peregrinus anatum	Fed: State: CDFW:	D D FP	Inhabits riparian areas and coastal and inland wetland habitats yearlong. During the breeding season, species occurs near wetlands, lakes, rivers, or other water where it nests on high cliffs, banks, dunes, and mounds; may nest on man-made structures and occasionally tree or snag cavities. Nesting location must contain protected cliffs or ledges for cover. Nests are usually scrapes on a depression or ledge in an open site. The species breeds from early March to late August.	Α	Presumed Absent: The BSA lacks large, open water features. While the BSA may contain suitable nesting sites, it lacks adjacent foraging sites and is unlikely to support the species. There is only one CNDDB occurrence of the species within the general area of the USGS 7.5-minute quadrangle of Orange, which is approximately 8 miles northwest of the project area (2015). Due to the lack of suitable foraging habitat, the species is presumed absent.
Bald eagle	Haliaeetus leucocephalus	Fed: State: CDFW:	D E FP	Species occurs near ocean shores, lakes, rivers, rangelands, and coastal wetlands for nesting and wintering; nesting occurs within one mile of a water source with abundant fish near mountain forests and woodlands. The species nests in large, old growth, or dominant live trees with open branches. Prefers ponderosa pines and often chooses the largest tree in a stand. Usually will not nest near evident human disturbance. Prefers lower elevations and not found in the high Sierra Nevada. The breeding season is from February through July.	Α	Presumed Absent: The BSA does not contain suitable lakes, rivers, rangelands, or coastal wetlands for nesting or foraging. There is a CNDDB occurrence of the species approximately 6 miles northwest of the project area (2011), near Irvine Lake. Due to the lack of suitable nesting or foraging habitat, the species is presumed absent from the BSA.
Belding's savannah sparrow	Passerculus sandwichensis beldingi	Fed: State: CDFW:	 E 	A southern California endemic, the species inhabits southern California coastal salt marshes year-round. It is a tidal-dependent species. Strongly associated with dense pickleweed vegetation, especially Pacific swampfire (Salicornia virginica). Most nests	А	Presumed Absent: The BSA lacks coastal saltmarsh habitat required by the species. In addition, the nearest CNDDB occurrence of the species is approximately 9 miles southwest of the project area (2006). Due to the lack of suitable habitat and nearby occurrences,

Common Name	Species Name	State	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				occur within the preferred pickleweed communities.		the species is presumed absent from the BSA.
Burrowing owl	Athene cunicularia	Fed: State: CDFW:	 SSC	The species inhabits arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Can be associated with open shrub stages of pinyon-juniper and ponderosa pine habitats. Nests in old small mammal burrows, but may dig own burrow in soft soil. Nests are lines with excrement, pellets, debris, grass, and feathers. The species may use pipes, culverts, nest boxes, and even buildings where burrows are scarce. Breeding occurs March through August (below 5,300 ft.).	А	Presumed Absent: The BSA is located within a canyon and lacks open grassland habitat suitable for the species. Additionally, the nearest CNDDB occurrence of the species is approximately 8.2 miles southwest of the project area (2010). Due to the lack of suitable habitat and distance from local occurrences, the species is presumed absent from the BSA.
California black rail	Laterallus jamaicensis coturniculus	Fed: State: CDFW:	 T FP	A rare, yearlong California resident of brackish and freshwater emergent wetlands in delta and coastal locations, including the San Francisco Bay area, Sacramento-San Joaquin Delta, Morro Bay, the Salton Sea, and lower Colorado River. The species is extirpated from San Diego County and the majority of coastal southern California. Occurs in tidal emergent wetlands dominated by pickleweed, in brackish marshes dominated by bulrushes with pickleweed, and in freshwater wetlands dominated by bulrushes, cattails, and saltgrass. Species prefers high wetland areas, away from areas experiencing fluctuating water levels. Requires vegetation providing adequate overhead cover for nesting. Eggs are laid from March through June.	А	Presumed Absent: The BSA does not contain brackish or freshwater emergent wetlands and is located approximately 15 miles from the nearest delta or ocean habitat areas. There are no recent (<20 years) CNDDB occurrences within 10 miles of the BSA, and the nearest historic (1986) CNDDB occurrence of the species is approximately 9.5 miles west of the project area. Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent from the BSA.
California horned lark	Eremophila alpestris actia	Fed: State: CDFW:	 WL	Inhabits open areas with low, sparse vegetation lacking trees and large shrubs of grasslands, hills, mountain meadows, open coastal plains, fallow grain fields, alpine dwarf-shrub habitat, and alkali flats. Less common in mountain regions, on the North Coast, and in coniferous or chaparral habitats. Species is a ground	А	Presumed Absent: The nearest CNDDB occurrence of the species is approximately 2.5 miles south of the project area (2002). However, the BSA lacks open, sparse habitats. It is located within a canyon in a mountain region. Despite the presence of suitable plant communities, the habitat is lacking key

Common Name	Species Name	Statı	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				nester and breeds from March through July (sea level-above the tree line).		features that support populations of the species. Due to the lack of suitable habitat, the species is presumed absent.
California least tern	Sternula antillarum browni	Fed: State: CDFW:	E E FP	A Californian nesting migrant from April through September. Forages in near-shore ocean water and shallow estuaries and lagoons. Species nests in colonies on sandy soils with sparse vegetation along the ocean, lagoons, and bays. Breeds beginning in April.	А	Presumed Absent: The BSA does not contain suitable estuary habitat form the species, and the BSA is located approximately 15 miles from the nearest ocean access. In addition, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable habitat and location of the BSA the species is presumed absent from the BSA.
Coastal cactus wren	Campylorhynchus brunneicapillus sandiegensis	Fed: State: CDFW:	 1B.2	Inhabits southern California coastal sage scrub communities. Species requires tall <i>Opuntia</i> sp. cacti (specifically prickly pear and coastal cholla) for nesting and roosting. Found in arid parts of westward-draining slopes. Breeds from March through June; frequently produces two broods per season.	A	Presumed Absent: The BSA does not contain California coastal sage scrub habitat, and no prickly pear or coastal cholla cacti are present within the BSA. The nearest CNDDB occurrence of the species is approximately 1 mile south of the project area (2017). Due to the lack of suitable habitat, the species is presumed absent from the BSA despite recent, nearby occurrences.
Coastal California gnatcatcher	Polioptila californica californica	Fed: State: CDFW:	T SSC	Inhabits arid washes, mesas, and slopes of coastal hills dominated by dense, low-growing, drought-deciduous shrubs and subshrubs of coastal sage scrub. May also use chaparral, grassland, and riparian communities when adjacent to or intermixed with sage scrub vegetation. Breeds February through August (sea level-2,500 ft.).	НР	Low to Moderate Potential: The BSA lacks suitable dense coastal sage scrub; however, the BSA does contain potentially suitable riparian habitat for dispersal and foraging adjacent to sloped chaparral habitat. The nearest CNDDB occurrence of the species is approximately 2 miles southeast of the project area (2002). Additionally, there are 2 eBird occurrences ranging from 1999 to 2015 within 1 mile of the BSA. Due to the presence of potentially suitable dispersal and foraging habitat and nearby occurrences, the species is

Common Name	Species Name	Statı	ıs	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Grasshopper sparrow	Ammodramus savannarum	Fed: State: CDFW:	 SSC	Inhabits foothills and lowlands with dry, dense, well-drained grasslands with a variety of grasses, tall forbs, and shrubs for perches. In southern California largely utilizes hillsides, and lower mountain slopes. Nests are composed of grasses and forbs on slight depressions in the ground. Species may form small groups when nesting. Breeds April through July (0-5,000 ft.).	A	considered to have a high potential to occur within the BSA. Presumed Absent: The BSA does contain mountain slopes; however, it lacks open grassland habitats. In addition, the nearest CNDDB occurrence of the species is approximately 8.5 miles southwest of the project area (2003). Due to the lack of suitable open grassland and the lack of nearby occurrences, the species is presumed absent.
Least Bell's vireo	Vireo bellii pusillus	Fed: State: CDFW:	E E :-	Summer resident of southern California inhabiting low riparian habitats in the vicinity of water and dry river bottoms. Prefers willows, baccharis, mesquite, and other low, dense vegetation as nesting site. Forages in dense brush and occasionally tree tops (below 2,000 ft.).	НР	Low to Moderate Potential: The BSA does contain suitable riparian habitat in the vicinity of water and dry river bottoms such as the intermittent Silverado Creek within the BSA. The nearest presumed extant CNDDB occurrence of the species is approximately 4.5 miles southwest of the BSA (2012). Additionally, there are 2 eBird occurrences (2019) within 4 miles of the BSA. Due to the presence of suitable habitat and nearby occurrences, the species is considered to have a low to moderate potential to occur within the BSA.
Light-footed Ridgeway's rail	Rallus obsoletus levipes	Fed: State: CDFW:	E E FP	Inhabits southern California coastal salt marshes, lagoons, and their maritime environments. Nests in the lower littoral zone of coastal salt marshes where dense strands of cordgrass are present. Requires shallow water and mudflats for foraging, with adjacent higher vegetation for cover.	А	Presumed Absent: The BSA does not contain coastal salt marshes suitable for the species. Additionally, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent from the BSA.
Long-eared owl	Asio otus	Fed: State: CDFW:	 SSC	Species is an uncommon yearlong resident throughout the state with the exception of the Central Valley and southern California deserts where it is an uncommon winter visitor. Species	А	Presumed Absent: The BSA does contain potentially suitable riparian habitat. However, no large trees with suitable nesting cavities and no open

Common Name	Species Name	Statu	ıs	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				utilizes riparian forest or thickets with dense canopied trees for roosting and nesting. Forages in open areas, woodlands, and forested habitats. At high elevations may utilize dense conifer stands. Uses old nests (usually crow, magpie, hawk, heron, squirrel) 10-50 ft. above ground in tree cavities. Breeds in April to July.		foraging habitat is present within the BSA. Furthermore, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of key habitat features and the lack of recent, nearby occurrences, the species is presumed absent from the BSA.
Northern harrier	Circus hudsonius	Fed: State: CDFW:	 SSC	Species occurs in flat, or hummocky, open areas of tall, dense grasses and moist or dry shrubs. Inhabits meadows, grasslands, open rangelands, desert sinks, and fresh or saltwater emergent wetland communities. Nesting occurs on the ground within grasslands, grain fields, sagebrush, or other shrubby vegetation. Nest sites are often chosen at marsh edges or in proximity to water. Breeds April through September (0-5,700 ft.).	А	Presumed Absent: The BSA does not contain suitable flat, open areas and meadow, grassland, and wetland habitat. Additionally, there is only one nearby historic (1987) CNDDB occurrence reported, approximately 6 miles southeast of the project area. Due to the lack of suitable habitat and recent occurrences, the species is presumed absent from the BSA.
Southern California rufous-crowned sparrow	Aimophila ruficeps canescens	Fed: State: CDFW:	 WL	Inhabits steep, often rocky hillsides with grass and forb patches or shrubless, grassy slopes in proximity to rock outcrops of southern California coastal sage scrub and open mixed chaparral communities. Generally absent from dense, unbroken stands of coastal sage scrub and chaparral. Breeds March to June.	А	Presumed Absent: The BSA does not contain suitable rocky hillsides or grassy slopes in proximity to rock outcrops or coastal sage scrub. The nearest presumed extant CNDDB occurrence of the species is approximately 1 mile southeast of the project area (2002) within suitable coastal sagebrush dominated grassland area. Due to the lack of suitable habitat, the species is presumed absent from the BSA, despite recent local occurrences.
Southwestern willow flycatcher	Empidonax traillii extimus	Fed: State: CDFW:	E E	Breeds in riparian habitats characterized by dense vegetation in proximity to open water or saturated soil. Species is associated with dense willow-covered islands and riparian habitats at elevations up to 8,000 ft Often in proximity to rivers, swamps, lakes, reservoirs, and other wetlands. Historically, the species nested in native vegetation, but will also use thickets of	А	Presumed Absent: There are no CNDDB occurrences of the species within 10 miles of the project area. Additionally, the BSA lacks large, open water features, as Silverado Creek is a small intermittent creek. Despite the presence of riparian habitat within the BSA, the species is presumed absent

Common Name	Species Name	Stati	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				non-native tamarisk and Russian olive. Breeds in April through August.		due to the lack of suitable aquatic habitat features and the lack of nearby occurrences.
Tricolored blackbird	Agelaius tricolor	Fed: State: CDFW:	T SSC	Inhabits freshwater marsh, swamp, and wetland communities, but may utilize agricultural or upland habitats that can support large colonies, often in the Central Valley area. Requires dense nesting habitat that is protected from predators, is within 3-5 miles from a suitable foraging area containing insect prey, and is within 0.3 miles of open water. Suitable foraging includes wetland, pastureland, rangeland, dairy farms, and some irrigated croplands (silage, alfalfa, etc.). Nests in dense cattails, tules, willow, blackberry, wild rose, or tall herbs. Nests mid-March to early August, but may extend until October or November in the Sacramento Valley region.	А	Presumed Absent: The BSA does not contain open swamp and marsh habitat required by the species. In addition, the nearest recent CNDDB occurrence is approximately 9 miles northwest of the project area (2014), concentrated around Peters Canyon Reservoir. Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent from the BSA.
Western yellow-billed cuckoo	Coccyzus americanus occidentalis	Fed: State: CDFW:	T E 	Species inhabits riparian forests, along broad, lower flood bottoms of larger river systems. Nests in large blocks of riparian jungles often mixed with cottonwoods. Nesting appears to be preferred in riparian forest habitats with a dense understory; requires water near nesting site. Breeds June to August.	А	Presumed Absent: The BSA does not contain larger river systems preferred by the species. The habitat surrounding the BSA contains riparian vegetation; however, the understory is less dense than what the species is typically found in. There are no CNDDB occurrences of the species within 10 miles of the BSA. Additionally, Silverado Creek, which runs through the BSA, is a small intermittent creek and would typically lack required water during the nesting season. Due to the lack of preferred habitat features, and distance from recent extant occurrences, the species is presumed absent from the BSA.
White-tailed kite	Elanus leucurus	Fed: State: CDFW:	 FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees	A	Presumed Absent: The BSA does contain potentially suitable deciduous riparian woodland nesting habitat; however, the BSA and surrounding area does not exhibit necessary open

Common Name	Species Name	Stati	ıs	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				for nesting and perching. In southern California, will roost in saltgrass and Bermuda grass. Often found near agricultural lands. Nests are placed near the tops of dense oak, willow, or other tree stands. Breeds February through October.		grassland foraging habitat necessary for the species. The nearest CNDDB presumed extant occurrence is approximately 8.25 miles southwest of the project area (2009). Due to the lack of suitable foraging habitat and nearby occurrences, the species is presumed absent from the BSA.
Yellow rail	Coturnicops noveboracensis	Fed: State: CDFW:	 SSC	Occurs in shallow marshes, wet meadows, drier fresh-water and brackish marshes, rice fields, and dense, deep grasses. The species breeds in grass- and sedge-dominated marshes and wetlands with shallow water depths. Requires standing water over a foot deep, and areas with small trees may be utilized but are not ideal. Their preferred habitat provides a layer of vegetation where they can covertly move beneath. Wintering birds frequent mature salt marshes well above the water line.	Α	Presumed Absent: The BSA does not contain marsh, meadow, and wetland habitat. Silverado Creek, which runs through the BSA, lacks areas of standing water over a foot deep. Additionally, there are only historic (1914) CNDDB occurrences within 10 miles of the BSA. The nearest presumed extant occurrence is approximately 7 miles north of the project area. Due to the lack of suitable habitat and recent nearby occurrences, the species is presumed absent from the BSA.
Yellow warbler	Setophaga petechia	Fed: State: CDFW:	 SSC	Breeds in several southern California mountain ranges and throughout most of San Diego County. Species prefers to nest in areas with trees and shrubs typical of low, open-canopy riparian woodland. Species has been known to breed in riparian woodlands from coastal and desert lowlands and montane shrubbery in open conifer forests. Occurs up to 8,000 ft. in the Sierra Nevada. Breeds April to August.	А	Presumed Absent: The BSA does contain open-canopy riparian woodland for the species; however, the riparian woodland habitat does not contain a heavy brush understory required for nesting. Additionally, the nearest recent presumed extant occurrence of the species is over 15 miles northwest of the BSA. Due to the lack of potentially suitable dense brush understory within the riparian woodland habitat and the lack of recent presumed extant occurrences, the species is presumed absent from the BSA.

Common Name	Species Name	State	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Yellow- breasted chat	Icteria virens	Fed: State: CDFW:	 SSC	An uncommon summer resident of coastal California and in foothills of the Sierra Nevada, arriving in April and departing by late September. Requires riparian thickets of willow and other brushy tangles near watercourses for nesting and foraging. Nests in dense shrubs along streams and rivers. Breeds from May to August.	Α	Presumed Absent: The BSA does contain riparian habitat along the Silverado Creek corridor; however, the riparian habitat lacks thickets of willow and other dense brush understory required by the species for nesting. The nearest CNDDB occurrence of the species is approximately 6 miles west of the project area (2003). Due to the lack of potentially suitable nesting habitat the species is presumed absent from the BSA.
Fish Species						
Arroyo chub	Gila orcuttii	Fed: State: CDFW:	 SSC	The species is native in Malibu Creek and the Santa Clara, San Luis Rey, and Santa Margarita River drainages. Present (but non-native) in the Mojave River, Santa Inez River, and San Felipe Creek. Requires vegetated streams with muddy or sandy bottoms and slow moving or backwater areas. Adapted to survive in low oxygen concentrations and wide temperature fluctuations. The species feeds on algae, water fern, and invertebrates (such as insects and mollusks). Spawning occurs in pools or edge habitat from February to August with a peak in June and July.	Α	Presumed Absent: The BSA does not intersect any of the known river and creek systems inhabited by the species. Furthermore, the nearest presumed extant CNDDB occurrence (1998) is approximately 6 miles southeast of the project area. Silverado Creek is an intermittent stream and lacks sufficient water flow to support the species. Due to the lack of suitable aquatic habitat and the lack of nearby occurrences, the species is presumed absent from the BSA.
Santa Ana speckled dace	Rhinichthys osculus ssp. 3	Fed: State: CDFW:	 SSC	Species inhabits the San Gabriel and Santa Ana rivers, preferring shallow gravel and cobble substrate within permanent streams or lakes with riparian cover. Prefers clear, well oxygenated water with movement from currents or waves with a supply of aquatic plants and insects. Breeds in the summer months.	А	Presumed Absent: Silverado Creek is an intermittent creek tributary of Santiago Creek, which contains shallow waters, gravelly substrate, and riparian cover. However, Silverado Creek does not have movement from currents or waves and the low water flow is unlikely to support the species. According to CDFW, although the species was found in Silverado Creek in 1987, none were identified during surveys in 2005 and 2007, tributaries and has been

Common Name	Species Name	Status	5	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						determined extirpated from the Cleveland National Forest watershed (CDFW 2015). Due to the lack of suitable aquatic habitat and recent surveys/reports of extirpation the species considered absent from the BSA.
Santa Ana sucker	Catostomus santaanae	State: -	T 	Endemic to Los Angeles basin south coastal perennial streams. Prefers steams containing riparian vegetation, coarse substrates for algae foraging (gravel, cobble, and a mixture of gravel or cobble with sand), shallow riffle areas, deeper runs, and pools of cool, clear water. Breeds April through July.	А	Presumed Absent: Silverado Creek is an intermittent stream and does not contain deep or permanent waters to support the species. In addition, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable aquatic habitat and distance from the species known range, the species is presumed absent from the BSA.
Steelhead - southern California DPS	Oncorhynchus mykiss irideus pop. 10	State: -	E 	Southern California steelhead utilize rivers and creeks from Pajaro River south to Santa Maria River. Spawning occurs in coastal watersheds while rearing occurs in freshwater or estuary habitats prior to emigrating to the ocean in the winter and spring. Preferred spawning sites contain gravel substrate with sufficient water flow and riverine cover. Rearing habitat contains sufficient feeding with associated riparian forest containing willow and cottonwoods. Migration upstream for reproduction occurs from October to May with spawning occurring January to April.	А	Presumed Absent: The species is possibly extirpated from the nearest CNDDB occurrence, which is within Harding Canyon, approximately 1.9 miles southeast of the project area (2013). Silverado Creek is an intermittent creek and does not contain sufficient water flow to support the species. Due to the lack of suitable water flow and the species' extirpation from recent occurrences, the species is presumed absent.
Invertebrate Sp	ecies					
Quino checkerspot butterfly	Euphydryas editha quino	State: -	E 	Historically inhabited coastal sage scrub habitat in southern California and northern Baja California historically. Current distribution is limited to southwestern Riverside and San Diego Counties. Larvae associated with <i>Plantago erecta</i> or <i>Castilleja exserta</i> plants. Adults emerge in early to mid-spring.	А	Presumed Absent: The species is considered extirpated from the nearest historic (1967) CNDDB occurrence, which is approximately 4 miles north of the project area. Additionally, the BSA lacks coastal sage scrub habitat and Plantago erecta or Castilleja exserta. Due to the lack of suitable habitat and the extirpation of the species from nearby

Common Name	Species Name	State	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						occurrences, it is presumed absent from the BSA.
Riverside fairy shrimp	Streptocephalus woottoni	Fed: State: CDFW:	E 	A Ventura, Los Angeles, Orange, Riverside, and San Diego County vernal pool endemic species. Inhabits deep ephemeral vernal pools greater than 12 inches within chaparral, coastal sage scrub, and grassland communities. Species requires pools filled with sufficient rainfall; emerges late in the season within warm waters.	А	Presumed Absent: The BSA does not contain vernal pool habitats. In addition, the nearest CNDDB occurrence of the species is approximately 4.5 miles southwest of the project area (2005). Due to the lack of suitable habitat required by the species, the species is presumed absent from the BSA.
San Diego fairy shrimp	Branchinecta sandiegonensis	Fed: State: CDFW:	E 	Restricted to vernal pools and other ephemeral (lasting a short time) basins in coastal Orange and San Diego Counties in southern California and in northwestern Baja California. A habitat specialist found in shallower pools that range in depth from 2 to 12 inches. Prefers vernal pool complexes, which typically include between 5 and 50 vernal pools. Vernal pools within a complex are generally hydrologically connected.	А	Presumed Absent: The BSA does not contain vernal pool habitats. In addition, the nearest extant CNDDB occurrence of the species is approximately 7.5 miles northwest of the project area (2006). Due to the lack of suitable habitat required by the species, the species is presumed absent from the BSA.
Mammal Specie	es					
Mexican long- tongued bat	Choeronycteris mexicana	Fed: State: CDFW:	 SSC	A summer resident of San Diego County. Inhabits desert and montane riparian, desert succulent scrub, desert scrub, and pinyon juniper communities. Species is primarily a nectar feeder and migrates to acquire flowering food sources; strong preference to agave and yucca. Day roosts in caves, mines, and buildings, particularly dimly-lit sites. Births in June and early July, with lactation extending to August.	А	Presumed Absent: The BSA contains riparian habitat, but lacks suitable roosting sites such as caves, mines, and buildings. Additionally, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable roosting habitat and the lack of nearby occurrences, the species is presumed absent from the BSA.
Northwestern San Diego pocket mouse	Chaetodipus fallax fallax	Fed: State: CDFW:	 SSC	Within San Diego county inhabits arid coastal and desert border areas of coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland communities. Species strongly	А	Presumed Absent: The BSA does not contain coastal scrub, chaparral, desert wash, or grassland habitat suitable for the species. There is a recent (2016) CNDDB occurrence of the species approximately 4 miles southeast of the project area; within suitable coastal

Common Name	Species Name	Statı	ıs	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				associated with rocky, gravelly, or sandy substrates. Breeds March to May (0-6,000 ft.).		scrub habitat. Due to the lack of suitable habitat the species is presumed absent from the BSA.
Pacific pocket mouse	Perognathus longimembris pacificus	Fed: State: CDFW:	E SSC	Inhabits sandy soils of coastal strand, coastal dunes, river alluvium, and coastal sage scrub habitats on marine terraces. Occurs within close proximity to the Pacific Ocean. Species hibernates from November to February and births April to June (0-600 ft.).	А	Presumed Absent: The BSA is almost 15 miles away from the ocean and lacks maritime habitats. In addition, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of occurrences and suitable habitat, the species is presumed absent from the BSA.
Pallid bat	Antrozous pallidus	Fed: State: CDFW:	 SSC	Inhabits low elevations of deserts, grasslands, shrub lands, woodlands, and forests year-round. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground within 1-3 miles of day roosts. Prefers caves, crevices, and mines for day roosts, but may utilize hollow trees, bridges, and buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. Maternity colonies form early April and young are born April to July (below 10,000 ft.).	А	Presumed Absent: The BSA lacks open habitats for foraging and caves, crevices, and mines for roosting. Additionally, no roosting habitat was identified within the existing bridge structure. There are no recent extant occurrences within 10 miles of the BSA. Due to the lack of suitable roosting and foraging habitat and the lack of recent, nearby occurrences, the species is presumed absent from the BSA.
Pocketed free- tailed bat	Nyctinomops femorosaccus	Fed: State: CDFW:	 SSC	Inhabits pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis communities. Prefers rocky desert areas with high cliffs or rock outcrops and frequently selects roosts in cliff rock crevices. Species must have an adequate drop from the roost to gain flight. Maternity sites are located in rock crevices, caverns and buildings. Young are born June to July.	А	Presumed Absent: The project area is adjacent to steeply sloped chaparral habitat; however, the BSA lacks rocky outcrops and high cliffs. Furthermore, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable roosting habitat and the lack of recent, nearby occurrences, the species is presumed absent from the BSA.
San Diego desert woodrat	Neotoma lepida intermedia	Fed: State: CDFW:	 SSC	The species inhabits coastal scrub of southern California, from San Diego County to San Luis Obispo County. Prefers moderate to dense canopies, rocky outcrops, rocky cliffs, and slopes. Inhabits most desert habitats,	А	Presumed Absent: The BSA does not contain coastal scrub, chaparral, desert wash, or grassland habitat suitable for the species. There is a recent (2016) CNDDB occurrence of the species

Common Name	Species Name	Stati	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				particularly Joshua tree, pinyon-juniper, mixed chamise-redshank chaparral, and sagebrush communities. The species is active yearlong and usually nocturnal. Breeds from October to May.		approximately 4 miles southeast of the project area; within suitable chaparral habitat. Due to the lack of suitable habitat the species is presumed absent from the BSA.
Southern California saltmarsh shrew	Sorex ornatus salicornicus	Fed: State: CDFW:	 SSC	Inhabits coastal salt marshes in Los Angeles, Orange, and Ventura Counties. Specifically occurs in salt marshes dominated by <i>Salicornia spp.</i> and salt grass. In some occurrences, it is in association with willow (<i>Salix spp.</i>) and bulrush (<i>Scirpus sp.</i>). Important features of the species' habitat include dense vegetative ground cover, nesting sites above mean high tide, and moist surroundings.	А	Presumed Absent: The BSA lacks coastal salt marsh habitat, as it is almost 15 miles away from ocean habitat. Furthermore, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent from the BSA.
Southern grasshopper mouse	Onychomys torridus ramona	Fed: State: CDFW:	 SSC	Species prefers alkali and desert scrub habitats with low to moderate shrub cover and friable soils. Breeds from May to July, but may begin as early as January under ideal habitat conditions.	А	Presumed Absent: The BSA does not contain suitable desert scrub habitats for the species. The nearest recent (2016) extant CNDDB occurrence of the species is approximately 4 miles southeast of the project area. Despite nearby occurrences, the project area lacks open alkali and desert scrub habitats; therefore, the species is presumed absent from the BSA.
Stephens' kangaroo rat	Dipodomys stephensi	Fed: State: CDFW:	E T 	Inhabits annual and perennial grasslands and coastal scrub or sagebrush with sparse canopy cover. Prefers sparse grassland over dense grassland habitats and species prefers buckwheat, chamise, brome grass, and filaree as food sources. Species prefers sandy and gravely soils of level to gently sloping habitat with slopes less than 50%. Requires patches of fine-grained soils or dusty pockets for sand bathing. Burrows frequently found in clusters. Likely breeds April to June (180-4,100 ft.)	Α	Presumed Absent: The BSA lacks grassland and coastal habitat. Additionally, there are no known extant occurrences within 10 miles of the BSA. Due to the lack of suitable habitat and the lack of local occurrences the species is presumed absent from the BSA.

Common Name	Species Name	Stati	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Western mastiff bat	Eumops perotis californicus	Fed: State: CDFW:	 SSC	Inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Prefers open, rugged, rocky areas where suitable crevices are available for day roosts. Roots in cliff face crevices (usually granite or consolidated sandstone), high buildings, trees, and tunnels. Roosting sites must have a minimum 10-foot vertical drop. Births early April through August or September (sea level-8,475 ft.).	А	Low to Moderate Potential: The BSA does contain riparian deciduous woodland; and potentially suitable tree cavity roosting habitat was identified within the BSA during biological surveys. The nearest presumed extant CNDDB occurrence of the species is approximately within Silverado Canyon including the BSA (date unspecified and submitted by USFS – Cleveland National Forest for possible high use area, 2007). Due to the presence of suitable habitat and potential roosting sites, in addition to the USFS potential high use area CNDDB occurrence, the species is considered to have a low to moderate potential to occur within the BSA.
Western yellow bat	Lasiurus xanthinus	Fed: State: CDFW:	 SSC	Species known in California only in Los Angeles and San Bernardino Counties south to the Mexican border. Inhabits valley foothill riparian, desert riparian, desert wash, and palm oasis habitats in proximity to water. Species utilizes trees and palms for roosting and maternity colonies. Births in June and July (below 2,000 ft.).	А	Presumed Absent: The BSA does contain foothill riparian habitat; however, the species presumed extant range is not within Orange County and there are no CNDDB occurrences of the species within 10 miles of the BSA. Due to the BSA being outside the species known range, the species is presumed absent from the BSA.
Reptile Species						
California glossy snake	Arizona elegans occidentalis	Fed: State: CDFW:	 SSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers microhabitats of open areas and loose soils. A nocturnal species that hides underground in rocks and burrows during the day. The species can dig its own burrows or use existing ones. Lays from 3 to 23 eggs (more often 5 to 12) in June and July. Eggs hatch late summer and early fall. The species is found from below sea level to around 7,200 ft	А	Presumed Absent: The BSA does not contain rocky washes, grasslands, or chaparral habitat suitable for the species. The nearest recent (2014) CNDDB occurrence of the species is approximately 17 miles southeast of the project area. Due to the lack of suitable microhabitats and the lack of recent, nearby occurrences, the species is presumed absent from the BSA.

Common Name	Species Name	State	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Coast horned lizard	Phrynosoma blainvillii	Fed: State: CDFW:	 SSC	Inhabits valley-foothill hardwood, conifer forest, and riparian habitats, as well as pine-cypress, juniper woodland, and annual grasslands with sandy areas, washes, or flood plains. Frequently found near ant hills. Egg laying occurs from May to June, and some females may lay two clutches per year (sea level-8,000 ft.).	НР	High Potential: The BSA does contain potentially suitable riparian habitat and sandy soils. Additionally, the nearest CNDDB occurrence of the species is approximately 4 miles southeast of the project area (2017). Additionally, a recent (2019) iNaturalist research grade observation of the species was documented less than 0.5 mile from the BSA. Due to the presence of suitable habitat and recent, nearby occurrences, the species is considered to have a high potential to occur within the BSA.
Coast patch- nosed snake	Salvadora hexalepis virgultea	Fed: State: CDFW:	 SSC	Inhabits semi-arid brushy or shrubby areas and chaparral in canyons, rocky hillsides, and plains. Species is an active forager, and is susceptible to high levels of vehicle mortality. Requires small mammal burrows for refuge and overwintering sites. Egg laying probably occurs between May and August (below sea level-7,000 ft.).	НР	Low to Moderate Potential: The BSA does not contain brush or shrubby chaparral, rock hillslopes or plains suitable for the species. However, the species may use the Silverado creek habitat as a wildlife corridor. One historic (1999) presumed extant CNDDB occurrence of the species is approximately 5 miles northwest of the BSA (1999). Additionally, a recent (2019) iNaturalist research grade observation was documented approximately 1 mile west of the BSA within the Silverado Creek corridor. Due to the potential for the species to use the BSA as a wildlife corridor and the recent local occurrence, the species is considered to have a low to moderate potential to occur within the BSA.
Coastal whiptail	Aspidoscelis tigris stejnegeri	Fed: State: CDFW:	 SSC	Inhabits hot, dry areas with sparse foliage and open areas in forests, woodland, chaparral, and riparian areas. The species is diurnal. Breeding occurs from May to August. Their diet primarily includes termites as well as other lizards,	НР	Low to Moderate Potential: The BSA contains riparian habitat suitable for the species. The nearest recent (2008) presumed extant CNDDB occurrence of the species is approximately 5 miles southwest of the BSA. Additionally, a

Common Name	Species Name	Status	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
			insects, spiders, scorpions, and small animals. Occurs from sea level to 7,000 ft		recent (2018) iNaturalist research grade observation was documented approximately 3.5 mile west of the BSA. Due to the presence of potentially suitable habitat, and local recent occurrences, the species has a low to moderate potential to occur.
Orange- throated whiptail	Aspidoscelis hyperythra	Fed: State: CDFW: WI	Inhabits low-elevation coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats, especially in areas with summer morning fog. Prefers washes and other sandy areas with loose soils and patches of brush and rocks for cover and foraging. Reproduces April to July; young emerge August to September (0-3,410 ft.).	НР	Low to Moderate Potential: The project does contain potentially suitable hardwood riparian woodland habitat. In addition, the nearest CNDDB occurrence of the species is approximately 3.5 miles southeast of the project area (2016). Due to the presence of suitable habitat adjacent to the project area and nearby, recent occurrences, the species has a low to moderate potential to occur.
Red-diamond rattlesnake	Crotalus ruber	Fed: State: CDFW: SS	Inhabits coastal chaparral, oak and pine woodland, cultivated areas, and arid desert scrub communities. Requires rocky areas or areas of dense vegetation. Utilizes rodent burrows, cracks in rocks and surface cover objects for cover. Species is seasonally active, with the greatest activity occurring from March to June. Young are live-born from mid-August to October in quiet, safe locations (0-3,000 ft.).	А	Low to Moderate Potential: The project area does contain potentially suitable rocky areas through the Silverado Creek corridor. The nearest recent CNDDB occurrence of the species is approximately 6 miles southeast of the project area (2001), and two recent (2011, 2013) iNaturalist research grade observations is approximately 1 mile from the BSA. Due to the presence of potentially suitable habitat and local recent occurrences, the species has a low to moderate potential to occur within the BSA.
Southern California legless lizard	Anniella stebbinsi	Fed: State: CDFW: SS	Occurs in moist, warm, loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized	HP	Low to Moderate Potential: The BSA contains Silverado Creek, and the stream surroundings may provide suitable moist habitat with sandy soils and cover objects such as leaf litter from oaks, sycamores, willow and alder. The nearest historic (1970) CNDDB

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				with bush lupine and mock heather often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Can also be found by gently raking leaf litter under bushes and trees. Sometimes found in suburban gardens in southern California.		occurrence of the species is approximately 2.5 miles northwest of the project are, and a recent (2019) iNaturalist research grade observation is approximately 8 miles east of the BSA. Due to the presence of potentially suitable habitat, with historic and recent presumed extant occurrences, the species is considered to have a low to moderate potential to occur within the BSA.
Two-striped gartersnake	Thamnophis hammondii	Fed: State: CDFW:	 SSC	Species is diurnal, highly aquatic, and inhabits locations in proximity to permanent or semi-permanent bodies of water bordered by dense vegetation. Can be found around pools, creeks, cattle tanks, and other water sources. Associated with oak woodland, chaparral, brushland, and coniferous forest. Seasonally alters habitats: in summer, occupies streamside sites, and in winter, occupies nearby uplands. Thought to utilize holes, mammal burrows, crevices, and surface objects as night cover. Life young are born in late July and August, usually in secluded sites, such as under the loose bark of rotting logs or in dense vegetation near pond or stream margins (0-7,000 ft.).	НР	Low to Moderate Potential: The BSA contains Silverado Creek, and the stream surroundings may provide suitable habitat for the species. The nearest CNDDB occurrence of the species is approximately 3 miles northwest of the project area (2003), and a recent (2018) iNaturalist research grade observation is approximately 6 miles northeast of the BSA. Due to the presence of potentially suitable habitat and recent presumed extant occurrences, the species is considered to have a low to moderate potential to occur within the BSA.
Western pond turtle	Emys marmorata	Fed: State: CDFW:	 SSC	A fully aquatic turtle of ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with aquatic vegetation. Suitable habitat includes woodland, forests, and grasslands. Requires logs, rocks, cattail mats, and exposed banks for basking. Suitable upland habitat (sandy banks or grassy open field) is required for reproduction, which begins in April and ends with egg laying as late as August (sea level to 4,700 ft.).	Α	Low to Moderate Potential: The BSA contains Silverado Creek, an intermittent stream which does not provide permanent aquatic habitat for the species. However, the stream may provide habitat from fall to spring when the stream does carry water. There are multiple presumed extant occurrences within 5 miles of the BSA. Due to the presence of potentially suitable habitat and presumed extant occurrences, the species is considered to have a low to

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						moderate potential to occur within the BSA.
Plant Species						
Allen's pentachaeta	Pentachaeta aurea ssp. allenii	Fed: State: CNPS:	 1B.1	An annual herb endemic to California, inhabiting coastal scrub, foothill grassland, valley grassland, and southern oak woodland communities. Blooms March-June (250-1,700 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. The nearest CNDDB occurrence of the species is approximately 4.15 miles west of the project area (2003). Due to the lack of suitable habitat, the species is presumed absent.
Braunton's milk-vetch	Astragalus brauntonii	Fed: State: CNPS:	E 1B.1	A perennial herb inhabiting disturbed areas in chaparral, valley grassland, and coastal sage scrub communities. Usually occurs in sandstone soils with carbonate layers. Flowers January-August (15-2,000 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. In addition, the nearest CNDDB occurrence is approximately 7.1 miles northwest of the project area (2012). Due to the lack of suitable habitat, the species is presumed absent.
California beardtongue	Penstemon californicus	Fed: State: CNPS:	 1B.2	A perennial herb native to California inhabiting chaparral, yellow pine forest, and pinyon/juniper woodland communities. Blooms May-June (3,900-7,500 ft.).	А	Presumed Absent: The only nearby historic (1981) CNDDB occurrence is 8.9 miles northwest of the project area. Additionally, the BSA is outside the species' preferred elevation range. Due to the elevation of the BSA and the lack of nearby occurrences, the species is presumed absent.
Chaparral nolina	Nolina cismontana	Fed: State: CNPS:	 1B.2	A shrub inhabiting dry chaparral habitats of coastal mountains. Flowers May-July (650-4,270 ft.).	А	Presumed Absent: The nearest CNDDB occurrence of the species is approximately 1.9 miles west of the project area (2016). However, the project area does not contain suitable chaparral habitat for the species. Despite nearby occurrences, the species is presumed absent due to the lack of suitable habitat within the project area.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Chaparral ragwort	Senecio aphanactis	Fed: State: CNPS:	 2B.2	An annual herb native to California and Baja California, inhabiting alkaline soils in cismontane woodland, coastal scrub, and chaparral communities. Blooms January-May (50-2,600 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. The nearest historic (1989) CNDDB occurrence of the species is approximately 6.4 miles west of the project area. Due to the lack of suitable habitat, the species is presumed absent.
Chaparral sand-verbena	Abronia villosa var. aurita	Fed: State: CNPS:	 1B.1	An annual herb inhabiting sandy soils of chaparral, coastal sage scrub, and desert dune communities. Flowers March-September (250-5,250 ft.).	А	Presumed Absent: The BSA lacks coastal dune habitats. In addition, the nearest historic (1934) CNDDB occurrence is approximately 8.2 miles northeast of the project area. Due to the lack of habitat, the species is presumed absent.
Coulter's saltbush	Atriplex coulteri	Fed: State: CNPS:	 1B.2	A perennial herb native to California and Baja California, inhabiting coastal dunes, coastal strand, valley grassland, coastal sage scrub, and occasionally wetland communities. Blooms March-October (0-1,640 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. In addition, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of habitat and occurrences, the species is presumed absent.
Coulter's goldfields	Lasthenia glabrata ssp. coulteri	Fed: State: CNPS:	 1B.1	An annual herb inhabiting playas, coastal salt marshes, swamps, and vernal pool communities. Flowers from February-June (0-4,000 ft.).	А	Presumed Absent: The BSA lacks coastal and vernal communities. In addition, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of habitat and occurrences, the species is presumed absent.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Davidson's saltscale	Atriplex serenana var. davidsonii	Fed: State: CNPS:	 1B.2	An annual herb inhabiting alkaline bluffs of coastal bluff scrub or coastal scrub communities. Flowers April-October (30-660 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. Additionally, there are no CNDDB occurrences of the species within 10 miles of the project area. Additionally, the project area is outside of the species' preferred elevation range. Due to the lack of habitat and occurrences, the species is presumed absent.
Estuary seablite	Suaeda esteroa	Fed: State: CNPS:	 1B.2	A perennial herb native to California and Baja California, inhabiting coastal salt marsh and wetland-riparian communities. Blooms May-October (0-20 ft.).	А	Presumed Absent: The BSA lacks coastal and wetland habitats and there are no CNDDB occurrences of the species within 10 miles of the project area. Additionally, the project area is outside of the species' preferred elevation range. Due to the lack of habitat and occurrences, the species is presumed absent.
Felt-leaved monardella	Monardella hypoleuca ssp. lanata	Fed: State: CNPS:	 1B.2	A perennial herb native to California and Baja California, inhabiting chaparral and cismontane woodland communities. Blooms May-October (980-5,200 ft.).	А	Presumed Absent: There are no CNDDB occurrences of the species within 10 miles of the project area and the project area lacks suitable plant communities. Due to the lack of suitable habitat and occurrences, the species is presumed absent.
Gambel's water cress	Nasturtium gambelii	Fed: State: CNPS:	E T 1B.1	A perennial rhizomatous herb inhabiting fresh or brackish marshes and swamps. Flowers April-October (15-1,100 ft.).	А	Presumed Absent: The BSA lacks marshes and swamps. Additionally, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of habitat and occurrences, the species is presumed absent.

Common Name	Species Name	Statı	JS	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Hall's monardella	Monardella macrantha ssp. hallii	Fed: State: CNPS:	 1B.3	A perennial rhizomatous herb endemic to California, inhabiting chaparral, foothill woodland, yellow pine forest, mixed evergreen forest, and valley grassland communities. Blooms June-October (2,400-7,200 ft.).	А	Presumed Absent: The nearest CNDDB occurrence is approximately 4.1 miles southeast of the project area (2004). All nearby occurrences of the species are concentrated in this location, around Silverado Peak. Additionally, the BSA is below the species' preferred elevation range. Due to the elevation of the BSA and the species' pattern of occurrence, it is presumed absent.
Heart-leaved pitcher sage	Lepechinia cardiophylla	Fed: State: CNPS:	 1B.2	A shrub inhabiting chaparral, foothill woodlands and close-cone pine forest. Flowers April-July (2,000-3,940 ft.).	А	Presumed Absent: The nearest CNDDB occurrence is approximately 2.5 miles northeast of the project area (2016). All nearby occurrences of the species are concentrated in high elevation habitat of the Santa Ana Mountains. The BSA is below this preferred elevation range. Due to the elevation of the BSA and the species' pattern of occurrence, it is presumed absent.
Intermediate mariposa-lily	Calochortus weedii var. intermedius	Fed: State: CNPS:	 1B.2	A perennial bulbiferous herb inhabiting calcareous soils and dry, rocky, open slopes within chaparral, coastal scrub, and valley and foothill grassland communities. Flowers May-July (350-2,800 ft.).	А	Presumed Absent: The nearest recent CNDDB occurrence of the species is 0.66 miles southwest of the project area. Additionally, there is a historic (1958) occurrence of the species within Silverado Canyon, running through the project area. The slopes adjacent to the project area do contain potentially suitable chaparral habitat; however, the project will not impact these slopes. Due to the lack of suitable habitat within the project impact area, the species is presumed absent.

Common Name	Species Name	Statu	IS	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale	
Intermediate monardella	Monardella hypoleuca ssp. intermedia	Fed: State: CNPS:	 1B.3	A perennial herb inhabiting chaparral, cismontane woodland, and occasionally lower montane coniferous forest on dry slopes. Flowers April-September (1,300- 4,100 ft.).	A	Presumed Absent: The project area lacks suitable chaparral and woodland communities for the species. The nearest CNDDB occurrence is approximately 1.75 miles east of the project area (2009). Despite nearby occurrences, the species is presumed absent due to the lack of suitable habitat.	
Lewis' evening- primrose	Camissoniopsis lewisii	Fed: State: CNPS:	 3	An annual herb inhabiting sandy or clay soils of coastal grassland, coastal bluff scrub, cismontane woodland, coastal dunes, valley and foothill grassland, and coastal scrub communities. Flowers March-June (0-990 ft.).	A	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. Additionally, there are no CNDDB occurrences of the species within 10 miles of the project area. Additionally, the project area is outside of the species' preferred elevation range. Due to the lack of habitat and occurrences, the species is presumed absent.	
Long-spined spineflower	Chorizanthe polygonoides var. longispina	Fed: State: CNPS:	 1B.2	An annual herb inhabiting meadows within chaparral, valley grasslands, and coastal sage scrub habitats. Flowers April-July (100-4,920 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. In addition, there is only one nearby CNDDB occurrence reported, which is approximately 8.3 miles northwest of the project area (2001). Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent.	
Los Angeles sunflower	Helianthus nuttallii ssp. parishii	Fed: State: CNPS:	 1A	A perennial rhizomatous herb inhabiting damp meadows, marshes, and swamps of both coastal salt and freshwater. Flowers August-October (30-5,500 ft.). Species is presumed extinct in California by CNPS.	A	Presumed Absent: The species is presumed extinct in California by CNPS. There are no CNDDB occurrences of the species within 10 miles of the project area. Furthermore, the BSA lacks suitable marsh habitat for the species. Due to the species' likely extinction and lack of habitat, it is presumed absent.	

Common Name	Species Name	State	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Malibu baccharis	Baccharis malibuensis	Fed: State: CNPS:	 1B.1	A perennial deciduous shrub inhabiting chaparral, cismontane woodland, coastal scrub, and riparian woodland communities. Flowers in August (500-1,000 ft.).	Α	Presumed Absent: The BSA contains potentially suitable riparian habitat. However, the BSA is at a higher elevation than the species' preferred range and the nearest CNDDB occurrence is approximately 5.1 miles northwest of the project area (2008). All other occurrences of the species are concentrated around this occurrence. Despite potentially suitable habitat, the species is presumed absent from the BSA due to the elevation of the BSA and the species' previous pattern of occurrence.
Many-stemmed dudleya	Dudleya multicaulis	Fed: State: CNPS:	 1B.2	A perennial herb often found within clay and heavy soils of chaparral, coastal scrub, and valley and foothill grassland communities. Flowers April-July (50-2,600 ft.).	Α	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. Additionally, the BSA lacks clay soils and the nearest CNDDB occurrence is approximately 3.2 miles southwest of the project area (2005). Due to the lack of suitable habitat, the species is presumed absent.
Mesa horkelia	Horkelia cuneata var. puberula	Fed: State: CNPS:	 1B.1	A perennial herb inhabiting dry sandy or gravelly substrate, coastal chaparral, cismontane woodlands, and coastal scrub. Flowers February-September (230-2,600 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. Additionally, the nearest CNDDB occurrence of the species is approximately 8.5 miles northwest of the project area (2008). Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent.
Mud nama	Nama stenocarpa	Fed: State: CNPS:	 2B.2	An annual or perennial herb inhabiting intermittently wet areas including marshes, swamps, lake margins, and river banks. Flowers January-July (15-1,640 ft.).	А	Presumed Absent: The BSA does not contain marsh, swamp, lake or river habitat suitable for the species. There are no recent (<20 years) CNDDB

Common Name	Species Name	Stati	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						occurrences of the species within 10 miles of the BSA. Due to the lack of suitable habitat and lack of recent local occurrences.
Munz's onion	Allium munzii	Fed: State: CNPS:	 1B.1	A perennial herb inhabiting mesic and clay soils and grassy openings in coastal sage scrub, chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland. Flowers April-May (980-2,950 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. In addition, the BSA lacks clay soils and there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable soils and the lack of recent occurrences, the species is presumed absent.
Salt spring checkerbloom	Sidalcea neomexicana	Fed: State: CNPS:	 2B.2	A perennial herb inhabiting alkaline, mesic soils within alkaline springs, marshes, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Blooms March-June (50-5,020 ft.).	А	Presumed Absent: The BSA lacks alkaline, mesic soils and alkaline spring, marsh, and coastal habitats. Additionally, there is only one nearby CNDDB occurrence of the species, which is approximately 7.8 miles southeast of the project area (date unspecified). Due to the lack of suitable habitat, the species is presumed absent.
San Bernardino aster	Symphyotrichum defoliatum	Fed: State: CNPS:	 1B.2	A perennial rhizomatous herb inhabiting near ditches, streams, and springs of cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seep, marsh and swamp, and vernally mesic valley and foothill grassland communities. Flowers July-November (0-6,700 ft.).	А	Presumed Absent: The BSA lacks meadow, marsh, and vernal pool habitats. In addition, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of habitat and the lack of recent, nearby occurrences, the species is presumed absent.
San Fernando Valley spineflower	Chorizanthe parryi var. fernandina	Fed: State: CNPS:	C E 1B.1	An annual herb inhabiting sandy places, generally in coastal or desert scrub communities, but may also occur within valley and foothill grassland. Flowers April-July (500-4,000 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. In addition, the species is possibly extirpated from the only nearby historic (1902) CNDDB occurrence, which is 5.6

Common Name	Species Name	Stati	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						miles northwest of the project area. Due to the lack of suitable habitat and the lack of recent confirmed occurrences, the species is presumed absent.
San Miguel savory	Clinopodium chandleri	Fed: State: CNPS:	 1B.2	A perennial shrub inhabiting rocky, gabbroic, or metavolcanic soils of chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and grassland communities. Flowers March-July (400-3,600 ft.).	А	Presumed Absent: The BSA lacks rocky, gabbroic, and metavolcanic soils. In addition, the only nearby CNDDB occurrence of the species is approximately 7.8 miles southeast of the project area (date unspecified). Due to the lack of suitable soils, the species is presumed absent.
Santa Ana River woollystar	Eriastrum densifolium ssp. sanctorum	Fed: State: CNPS:	E E 1B.1	A perennial herb inhabiting river floodplains or terraced fluvial deposits within chaparral and coastal scrub communities. Flowers May-September (300-2,000 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. Additionally, the species is possibly extirpated from the only reported nearby CNDDB occurrence, which is approximately 9.9 miles northwest of the project area (1927). Due to the lack of habitat within the project area and the lack of nearby occurrences, the species is presumed absent.
Santa Monica dudleya	Dudleya cymose ssp. ovatifolia	Fed: State: CNPS:	T 1B.1	A perennial herb inhabiting volcanic, sedimentary, and rocky soils in chaparral and coastal sage scrub habitat in the Santa Monica Mountains. Flowers May-June (500-5,500 ft.).	А	Presumed Absent: The BSA is not located within the Santa Monica Mountains; therefore, there are no CNDDB occurrences of the species within 10 miles of the project area. Additionally, the project area lacks chaparral and sage scrub habitat. Due to the lack of habitat and nearby occurrences, the species is presumed absent.
Silverado Peak phacelia	Phacelia keckii	Fed: State: CNPS:	 1B.3	An annual herb endemic to California, inhabiting open chaparral and closed-cone pine forest. Flowers May-June (1,640-5,250 ft.).	А	Presumed Absent: The nearest recent CNDDB occurrence is approximately 3.3 miles southeast of the project area (2009). However, the BSA is

Common Name	Species Name	Stati	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						approximately 200 ft. below the species' preferred elevation range. Due to the elevation of the BSA, the species is presumed absent.
Slender-horned spineflower	Dodecahema leptoceras	Fed: State: CNPS:	 1B.1	An annual herb inhabiting alluvial sand in coastal scrub, chaparral, and cismontane woodland communities. Flowers April-June (660-2,500 ft.).	А	Presumed Absent: There are no CNDDB occurrences of the species within 10 miles of the project area. Additionally, the project area lacks specific communities inhabited by the species. Due to the lack of suitable habitat, the species is presumed absent. Presumed Absent: The BSA contains riparian habitat but lacks open meadow and grassland habitat. In addition, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent.
Smooth tarplant	Centromadia pungens ssp. laevis	Fed: State: CNPS:	 1B.1	An annual herb inhabiting alkaline soils of open, chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland communities. Flowers April-September (0-2,100 ft.).	А	
South coast saltscale	Atriplex pacifica	Fed: State: CNPS:	 1B.2	An annual herb inhabiting coastal bluff scrub, coastal dunes, coastal scrub, and playa communities. Flowers March-October (0-460 ft.).	А	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. Additionally, there are no CNDDB occurrences of the species within 10 miles of the project area Additionally, the BSA is located above the species' preferred elevation range. Due to the lack of suitable habitat and the elevation of the BSA, the species is presumed absent.

Common Name	Species Name	Stati	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Southern tarplant	Centromadia parryi ssp. australis	Fed: State: CNPS:	 1B.1	An annual herb inhabiting mesic vernal pools in margins of marshes, swamps, valley grassland, and foothill grassland communities. Flowers May-November (0-1,575 ft.).	Α	Presumed Absent: The BSA lacks marsh, grassland, and vernal pool communities. Additionally, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent.
Summer holly	Comarostaphylis diversifolia ssp. diversifolia	Fed: State: CNPS:	 1B.2	A perennial evergreen shrub inhabiting chaparral and cismontane woodland communities. Flowers April-June (100-2,600 ft.).	Α	Presumed Absent: The project area lacks suitable chaparral and cismontane woodland habitat for the species. The only nearby CNDDB occurrence of the species is approximately 3.8 miles southeast of the project area (2013). Despite nearby occurrences, the species is presumed absent due to the lack of suitable habitat.
Tecate cypress	Hesperocyparis forbesii	Fed: State: CNPS:	 1B.1	A perennial evergreen tree native to California, inhabiting clay, gabbroic, or metavolcanic soils in chaparral and closed-cone pine forest communities (260-4,900 ft.).	А	Presumed Absent: The BSA lacks clay, gabbroic, and metavolcanic soils. Additionally, the nearest recent CNDDB occurrence is approximately 5.2 miles north of the project area (2009). Due to the lack of suitable soils, the species is presumed absent.
Thread-leaved brodiaea	Brodiaea filifolia	Fed: State: CNPS:	T E 1B.1	A perennial bulbiferous herb inhabiting clay soils within grassland, vernal pools, chaparral openings, cismontane woodland, coastal scrub, playas, and valley and foothill grassland communities. Flowers March-June (80-4,000 ft.).	Α	Presumed Absent: The BSA does contain coastal scrub habitats, but these areas are well outside of the PIA. No suitable habitat occurs within the PIA. The BSA also lacks clay soils and vernal pools. The only nearby historic (1998) CNDDB occurrence of the species is approximately 5.3 miles southwest of the project area. Due to the lack of habitat, the species is presumed absent despite nearby occurrences.

Common Name	Species Name	Stat	us	General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Vernal barley	Hordeum intercedens	Fed: State: CNPS:	 3.2	An annual grass native to California and Baja California, inhabiting saline flats and depressions in foothill grassland, valley grassland, coastal dune, coastal scrub, vernal pool, freshwater wetland, and wetland-riparian habitats. Flowers March-June (15-3,300 ft.).	А	Presumed Absent: The BSA lacks saline flats, coastal dunes, wetland, and grassland communities. In addition, there are no CNDDB occurrences of the species within 10 miles of the project area. Due to the lack of suitable habitat and nearby occurrences, the species is presumed absent.
White rabbit-tobacco	Pseudognaphaliu m leucocephalum	Fed: State: CNPS:	 2B.2	A perennial herb inhabiting dry, sandy creek bottoms of chaparral, cismontane woodland, coastal scrub, and riparian woodland communities. Flowers July-December (0-6,900 ft.).	А	Presumed Absent: The BSA contains potentially suitable riparian habitat, however, the intermittent stream habitat would not provide the dry, sandy creek conditions that the species requires. The only nearby CNDDB occurrence of the species is approximately 7.2 miles northwest of the project area (2008). Due to the lack of dry, sandy creek bottoms required by the species, and lack of recent local occurrences, the species is presumed absent from the BSA.
White-bracted spineflower	Chorizanthe xanti var. leucotheca	Fed: State: CNPS:	 1B.2	An annual herb inhabiting sandy or gravelly soils within coastal scrubs, alluvial fans, Mojavean desert scrub, and pinyon/juniper woodland communities. Blooms April-June (980-3,940 ft.).	А	·

Federal Designations (Fed):

(FESA, USFWS)

E: Federally listed, endangered

T: Federally listed, threatened **DL** Federally listed, delisted

State Designations (CA):

(CESA, CDFW)

E: State-listed, endangered
T: State-listed, threatened
CE: Candidate Endangered
CT: Candidate Threatened

Other Designations

CDFW SSC: CDFW Species of Special Concern

CDFW_FP: CDFW Fully Protected

California Native Plant Society (CNPS) Designations:

*Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.

- 1A: Plants presumed extinct in California.
- **1B:** Plants rare and endangered in California and throughout their range.
- 2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.

CE: Candidate Endangered

CT: Candidate Threatened

3: Plants about which need more information; a review list.

Plants 1B, 2, and 4 extension meanings:

- _.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- _.2 Fairly endangered in California (20-80% occurrences threatened)
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Habitat Potential

Absent [A] - No habitat present and no further work needed.

Habitat Present [HP] - Habitat is, or may be present. The species may be present.

critical habitat [CH] - Project is within designated critical habitat.

Potential for Occurrence Criteria:

Present: Species was observed on site during a site visit or focused survey.

High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within 5 miles of the site.

Low-Moderate: Either low quality habitat (including soils and elevation factors) for the species occurs on site and a known occurrence exists within 5 miles of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search.

Presumed Absent: Focused surveys were conducted and the species was not found, or species was found within the database search but habitat (including soils and elevation factors) do not exist on site, or the known geographic range of the species does not include the survey area.

Source: CDFW 2020, CNDDB 2020, CNPS 2020, Calflora 2019, Jepson, 2nd Ed. 2019, NMFS 2019, 2020; USFWS 2019, 2020, iNaturalist 2020.

Silverado Canyon Road Bridge (No. 55C-0177) Replacement Project Orange County, California Orange County Public Works Federal Project No. BRLO-5955 (096)

Initial Site Assessment



Prepared for:



Prepared by:



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Silverado Canyon Road Bridge (No. 55C-0177) Replacement Project Orange County, California Orange County Public Works Federal Project No. BRLO-5955 (096)

Initial Site Assessment

Submitted to: Orange County Public Works

This report has been prepared by or under the supervision of the following Professional Geologist. The Registered Professional Geologist attests to the technical information contained herein and has judged the qualifications of any technical specialists providing environmental data upon which recommendations, conclusions, and decisions are based.

Melissa McAssey

Professional Geologist #8132

4/15/2021

Date

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Executive Summary

The Silverado Canyon Road Bridge No. 55C-0177 Replacement Project (Project) is located on Silverado Canyon Road in Orange County, California. The bridge spans Silverado Creek, which crosses under the bridge at a sharp angle and then flows adjacent to the roadway for approximately 50 feet. The steel span girder bridge was constructed in 1947. The original bridge is approximately 43 feet long and 24 feet wide. The purpose of the Project is to replace the bridge with one that meets current safety and roadway standards. The Project site is located in the unincorporated community of Silverado along Silverado Canyon Road approximately 4.25 miles east of Santiago Canyon Road (S18), and 0.75 miles east of the intersection of Silverado Canyon Road and Hillside Lane.

Orange County Public Works, together with the California Department of Transportation's (Caltrans) Local Assistance Program, is proposing the replacement of the bridge for safety purposes and to improve accessibility for pedestrians and emergency vehicles. This Project will be federally funded by the Highway Bridge Program (HBP) and local funds under Federal Aid Project No. BRL0-5955 (096).

As part of the environmental due diligence for the Project, WRECO, as a subcontractor to the Orange County Public Works, has completed an Initial Site Assessment (ISA) for the Silverado Canyon Road Bridge No. 55C-0177 over Silverado Creek Replacement Project. The purpose of the ISA is to assess the potential risks posed by hazardous materials in the Project area to environmental resources and human health. This report presents the results of the ISA, including regulatory records searches, file reviews, historical database reviews, and a site reconnaissance along with our recommendations.

The ISA was required as part of Caltrans' Local Assistance Procedures Manual and Standard Environmental Reference (SER) Environmental Handbook, Volume 1, Chapter 10 "Guidelines for Hazardous Materials, Hazardous Waste, and Contamination." The industry standard for preparing an ISA is found in the American Society for Testing and Materials (ASTM) International E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

According to historical research and records, the Project area was traditionally utilized for grazing and woodland. The Project area is still rural and has experienced little development, with the exception of some residential properties. In the past 20 years, more residential homes have been constructed, however, the neighborhood has remained rural.

The ISA identified the following potential recognized environmental conditions (REC) including:

- Potential aerially deposited lead (ADL) in exposed soil south of the bridge, from historical vehicle emissions during the leaded gasoline era;
- Potential polychlorinated biphenyls (PCB) and heavy metals from pole-mounted transformers on wooden utility poles (potential arsenic, chromium, creosote, polyaromatic hydrocarbons (PAH), and pentachlorophenol);
- Potential lead-based paint (LBP) on the metal railings on both sides of the bridge, and the yellow traffic striping; and

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• Potential asbestos-containing materials (ACM) within the bridge materials.

WRECO recommends a Preliminary Site Investigation (PSI) to test bridge materials for ACM and LBP prior to demolition. Soil that will be disturbed around the bridge should be tested for constituents of concern, as indicated above. The RECs identified at the Project area are described in the Summary Table below.

Summary of RECs and Recommendations

Description	Evidence of REC Found	Recommended Actions
ADL	There is potential for elevated levels of lead in exposed soil from historical vehicle emissions, since leaded gasoline was used through the 1970s and the shoulders of the roadway, south of the bridge, may contain ADL.	PSI: -Soil sampling for total lead.
Utility Poles and Pole-mounted Transformers	Treated wood poles (utility poles) along the side of the road may contain a variety of chemicals (arsenic, chromium, copper, creosote, PAHs, and pentachlorophenol) that can runoff and impact soil. Pole-mounted transformers, located to the northeast of the bridge, may leach these constituents of concern into the soil and water.	PSI: -Soil sampling for PCBs, PAHs (pentachlorophenol), and heavy metals. (If utility poles will be moved or replaced, abate transformers prior to construction)
Existing Bridge Structure May Contain LBP and ACM	Due to the age of the bridge, there is potential for LBP and ACM within the structure.	PSI: -Structural elements sampling for LBP and ACM.

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Orange County, California

Acronyms

AAI All Appropriate Inquiries

AC Asphalt Concrete

ACM Asbestos Containing Materials

ADL aerially deposited lead APN Assessor Parcel Number

ASTM American Society for Testing and Materials
Caltrans California Department of Transportation

CERCLA Comprehensive Environmental Response, Compensation and Liability Act

CGS California Geologic Survey

CREC controlled recognized environmental condition DTSC Department of Toxic Substances Control

DWR Department of Water Resources
EDR Environmental Data Resources
EPA Environmental Protection Agency

ft feet

HREC historical recognized environmental condition

ISA Initial Site Assessment LBP Lead Based Paint

NAIP National Agriculture Imagery Program NRCS National Resource Conservation Service

NOA naturally occurring asbestos PCB polychlorinated biphenyl

PES Preliminary Environmental Study
PSI Preliminary Site Investigation
REC recognized environmental condition
SER Standard Environmental Reference

SSP Standard Special Provisions

SWRCB State Water Resource Control Board USDA United States Department of Agriculture

USGS United States Geological Survey

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1 INTRODUCTION

This report presents the results of an Initial Site Assessment (ISA) conducted by WRECO, on behalf of the Orange County Public Works, for the Silverado Canyon Road Bridge No. 55C-0177 Replacement Project (Project), in Orange County (County), California. The bridge spans Silverado Creek, which crosses under the bridge at a sharp angle and then flows adjacent to the roadway for approximately 50 feet. The Project site is located in the unincorporated community of Silverado along Silverado Canyon Road approximately 4.25 miles east of Santiago Canyon Road (S18), and 0.75 miles east of the intersection of Silverado Canyon Road and Hillside Lane. The Project vicinity and location maps are shown in Figure 1 and Figure 2, respectively.

The steel span girder bridge was constructed in 1947, and the bridge is approximately 43 feet long and 24 feet wide. The current bridge is constructed of a reinforced concrete (RC) deck on built up steel girders and floor beams, RC pedestals and abutments with monolithic wingwalls at the northwestern and southeastern corners, on spread footings. There are concrete curbs on both sides of the bridge, and an 8-inch steel pipe waterline attached to the west girder of the bridge. The purpose of the Project is to replace the bridge with one that meets current safety and roadway standards.

Orange County Public Works and the California Department of Transportation's (Caltrans) Local Assistance Program is proposing the replacement of the bridge for safety purposes and to improve accessibility for pedestrians and emergency vehicles. This Project will be federally funded by the Highway Bridge Program (HBP) and local funds under Federal Aid Project No. BRL0-5955 (096).

1.1 Project Description

1.1.1 Project History

Constructed in 1947, the existing Silverado Canyon Bridge is a 43-foot-long, single-span steel I-Girder bridge with a concrete deck. The bridge barrier consists of parapet supported timber posts with a timber rail on one side and metal beam guard railing on the other. There is no approach railing. The bridge is founded on concrete spread footings set on rock. Short, concrete wingwalls flare away from the bridge at all four corners.

The bridge clear width is 24 feet and is striped for approximately 10-foot lanes. There are no defined shoulders. The concrete parapets on the bridge, at 1 foot and 6 inches, are too narrow to function as sidewalks. The approach roadway is on average 22 feet wide and is also striped for 10-foot lanes.

A private road intersects Silverado Canyon just northeast of the bridge, which serves several residents downstream of the bridge. The west approach is on a tangent, and the east approach slightly curves to the north. These approaches and 25 mph speed limit provide for adequate sight distance when approaching the bridge. A school crosswalk is just to the east of the bridge, but there are no connecting sidewalks or paths. The most recent County traffic count in March 2018 determined the average daily traffic (ADT) at approximately 2000.

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Silverado Creek flows from the east, crossing under the bridge at a sharp angle, and after crossing under the bridge, flows adjacent to and parallel to the road for approximately 50 feet. The existing bridge is skewed 45 degrees. The channel was excavated under the bridge approximately 5 to 6 feet when the bridge was constructed to provide additional conveyance. The bridge was programmed for replacement based on the low sufficiency rating and Functional Obsolete classification due to the narrow deck.

1.1.2 Purpose and Need

Orange County, California

1.1.2.1 Purpose

The purpose of the Project is to replace the existing deteriorated steel bridge with a new bridge in conformance with current environmental and design standards, both structurally and hydraulically, and have a life expectancy of 75 years minimum. Portions of the roadway connecting to the bridge will require widening and re-profiling to provide for a smooth transition to the new bridge.

1.1.2.2 Need

The road is the only access for residents of Silverado Canyon east of the bridge; therefore, it is critical to keep it in service and avoid potential deficiencies that would take the bridge out of service. Seasonal floods and wildfires occur in the Santa Ana Mountains that affect this community and quick access from the Canyon is necessary during such events. The existing two-lane bridge is classified as Functionally Obsolete due to the very narrow road width, and the bridge live load capacity does not meet current standards. The bridge must be widened to meet current standards and traffic volumes.

A new bridge structure is needed to provide a facility that will meet current federal standards and that will support an increased ADT capacity.

1.1.3 Project Description

Orange County, in cooperation with Caltrans, is proposing to replace the Silverado Canyon Road Bridge (Bridge No. 55C-0177) over Silverado Creek. The Silverado Canyon Road Bridge is located in Silverado Canyon within the Cleveland National Forest. The existing bridge is a single span and crosses over Silverado Creek. The Project will replace the existing substandard steel bridge; construction funding is provided by the Highway Bridge Program (HBP).

The proposed replacement structure is a single-span, prestressed, precast concrete voided slab girder bridge. The bridge will be raised approximately 3 feet to increase hydraulic conveyance. However, the bridge will only be able to pass the approximately 5-year storm event. Raising the bridge higher will begin to greatly impact residents to the east of the bridge. The abutments, similar to the existing bridge, will be set on spread footing foundations. Bridge barriers will be side mounted open metal railing, Type ST-70SM.

The replacement bridge will have 12-foot-wide lanes and will include a 4-foot shoulder on the north side and 6-foot shoulder on the south side, for a minimum total barrier to barrier width of 34 feet. There are no nearby pedestrian facilities or future plans to place sidewalks along Silverado Canyon Road, but portions of Silverado Canyon Road have sufficient dirt shoulders to provide

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room for pedestrians. To keep with the rural setting, there will not be sidewalks on the bridge. Silverado Creek is an intermittent stream that flows west under the existing bridge. Construction will require stream diversion.

The narrow road and limited right-of-way require the replacement structure be placed in the same location as the existing structure. There is no viable detour available. The bridge will be replaced utilizing stage construction with approximately ½ the bridge replaced in each stage. The existing four girder bridge allows half the bridge to be removed, supporting the remaining half on two girders. Contractor staging areas are limited. The contractor may stage on the closed portion of the existing road approaches. Additional staging locations may need to be utilized.

Utilities include a waterline attached to the south side of the bridge and overhead electrical and communication lines which diagonally cross the bridge. It is likely the overhead lines will need to be relocated for construction. The waterline will need to be relocated to the new bridge.

Typical equipment for roadway construction would include heavy construction earthmoving equipment, dump trucks and pavers. Typical bridge construction equipment would include cranes, excavators, rock hammers, generators, and concrete pumps.

1.2 Purpose of Initial Site Assessment

WRECO was contracted and tasked by Dokken Engineering Inc. to perform an ISA in agreement with Orange County Public Works for professional services in support of the Project. The ISA was identified in the Preliminary Environmental Study (PES) signed on March 26, 2018 (Appendix A). The ISA was required as part of the California Department of Transportation (Caltrans) environmental review, consistent with Caltrans' *Local Assistance Procedures Manual* and *Standard Environmental Reference* (SER) *Environmental Handbook*, Volume 1, Chapter 10 "Guidelines for Hazardous Materials, Hazardous Waste, and Contamination."

The industry standard for preparing an ISA is found in the American Society of Testing and Materials (ASTM) International E1527- 13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." The ISA was conducted in accordance with the United States Environmental Protection Agency (EPA) Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312). The AAI needs to be included as part of the process of evaluating a property's environmental conditions and assessing potential liability for any contamination. The intention of the ISA is to identify potential issues that may impact the Project with respect to the range of potential contaminants within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601).

The ISA investigation evaluated the Project area for the presence of recognized environmental conditions (REC). The ASTM defines a *REC* as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

Initial Site Assessment Silverado Canyon Road Bridge (No. 55C-0177) Replacement Project Orange County, California WRECO P18067

The term *REC* is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Two additional types of RECs are included in the revised ASTM publication, including historical REC (HREC) and controlled REC (CREC). A HREC is defined by ASTM as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or met unrestricted use criteria established by the regulatory authority without subjecting the property to any required controls.

A CREC is defined by ASTM as a REC resulting from a past release of any hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by a no further action letter or equivalent or met risk-based criteria established by the regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

No significant data gaps were identified during the completion of this ISA. Certain exceptions in this ISA, to the AAI standard, included: 1) no property appraisals performed for the Project area, and; 2) no direct interviews with the owners of the subject parcels. The permanent acquisitions and the temporary construction easements are currently pending for further actions. This report is not intended to serve as a compliance assessment of the subject property.

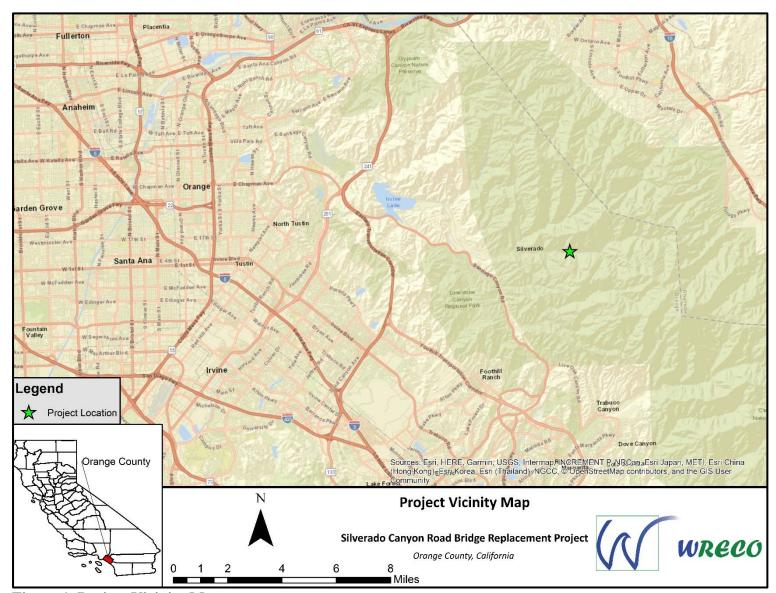


Figure 1. Project Vicinity Map

Source: WRECO/ESRI, 2020



Figure 2. Project Location Map

Source: WRECO/ESRI, 2020

2 PROJECT AREA SETTING

The Project is located in the east central portion of Orange County. It is approximately 2.80 miles east of Santiago Canyon Road (S18), 1.98 miles east of Silverado, and 8.21 miles northeast of central Lake Forest. The Project area is located in a rural setting, surrounded by residential homes on large pieces of land. All adjoining properties to the Project site are residential.

2.1 Physical Setting

2.1.1 Topography

Based on the Environmental Data Resources (EDR) GeoCheck® Physical Setting Source Summary (Appendix B), the average elevation of the Project area is 1,545 feet (ft) above mean sea level. The United States Geological Survey (USGS), Santiago Peak, California 7.5-Minute Topographic Quadrangle map was reviewed. The Project area is sloped moderately to the south southwest. A copy of the EDR Historical Topographic Map Report is provided in Appendix C.

2.1.2 Regional Geology

The Project is in the Peninsular Ranges Geomorphic Province, which is a group of mountain ranges that run from southern California to the southern tip of the Baja California peninsula. This province is characterized by a series of ranges separated by longitudinal valleys, trending northwest to southeast, subparallel to faults branching from the San Andreas Fault. The trend of topography is similar to the Coast Ranges, but the geology is similar to that of the Sierra Nevada with granitic rock intruding the older metamorphic rocks. The Peninsular Ranges (PR) extend into lower California and are bound on the east by the Colorado Desert Geomorphic Province and the Transverse Ranges to the north. The Los Angeles Basin and the island group (Santa Catalina, Santa Barbara, and the distinctly terraced San Clemente and San Nicolas islands), together with the surrounding continental shelf (cut by deep submarine fault troughs), are included in this province (CGS, 2002).

The PR is comprised of the Santa Ana, San Jacinto, and Laguna Ranges mountains, that contain metamorphosed oceanic rock (marble and schist) and metasedimentary rocks (sandstone and shale). The PR batholith is part of a chain of Mesozoic granitic rock that extends along western North America that formed from subduction of the Pacific plate (oceanic) beneath the continental plate, around 100 million years ago. The rocks in the western region contain mafic igneous rocks (basalt gabbro and andesite) and are older than the eastern region, which contains felsic igneous rocks (granite and granodiorite) and is younger. Saddleback Mountain, is the landmark formed by the two highest peaks in the Santa Ana Mountains and the ridge between them. Resembling a saddle, this formation dominates the county's eastern skyline, and Santiago Peak (5,689 ft), and Modjeska Peak (5,496 ft) are the highest points in the County. The hilly land in southern Orange County is known colloquially as Saddleback Valley.

The EDR GeoCheck® Physical Setting Source Summary (Appendix B) provided geologic information for the general area of the Project, which was identified as Eugeosynclinal Deposits from the Mesozoic Era, Lower Jurassic and Upper Triassic System, and Lower Mesozoic Series. The Regional Geology Map is provided as Figure 3.

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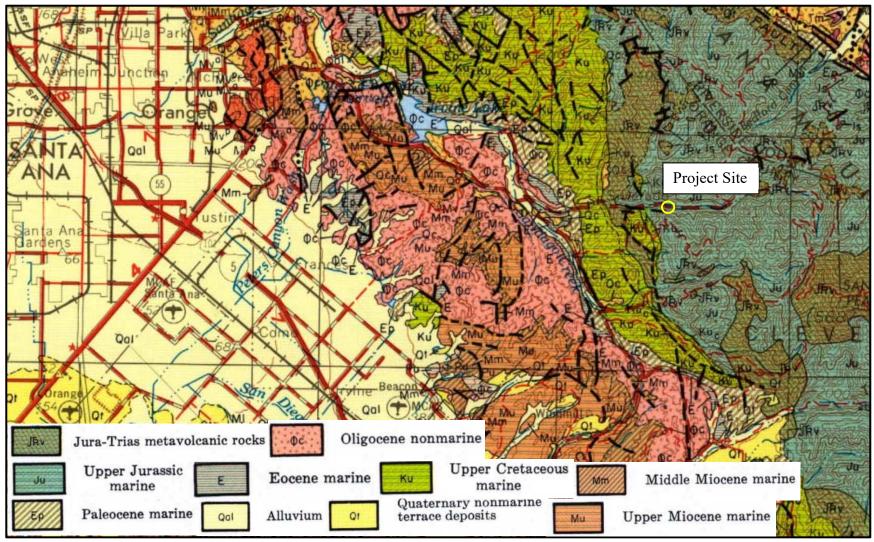


Figure 3. Regional Geology Map

Source: CGS, 2019



2.1.3 Local Geology and Soils

The Project site is located within marine sedimentary and metasedimentary rocks, described as Jurassic shale, sandstone, minor conglomerate, chert, slate, limestone, and minor pyroclastic rocks (J). The subsurface conditions encountered at the Project site include coarse-grained, well-graded gravels and silty clay materials (EDR, 2020).

The EDR GeoCheck® Physical Setting Source Addendum Report provided information on the only two soil types in the general vicinity of the Project: the Friant Series and the Soboba Series.

- The Friant Series consists of shallow, well drained soils that formed in material weathered from mica schist, quartz schist and gneiss. This series has medium to very rapid runoff and moderately rapid permeability. The Friant Series is considered moderately extensive and is common in the foothills along the east side of the San Joaquin Valley and the southwestern part of southern California. Friant soils are on mountainous uplands and have slopes ranging from 9 to 75 percent.
- The Soboba Series is characterized by deep, excessively drained soils that formed in alluvium from predominantly granitic rock sources. This series has very slow runoff and very rapid permeability. The Soboba series is considered to have a moderate extent occurring in the interior valleys of southern California. Soboba soils are often on alluvial fans and flood plains with slopes ranging anywhere from 0 to 30 percent (NRCS, 2020).

2.1.4 Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) can occur in serpentine rock and its parent material, ultramafic rock. These rock types are abundant in the Sierra foothills. NOA has not been identified in Orange County. The most common forms of naturally-occurring fibrous minerals with NOA are chrysotile, actinolite, and tremolite. A review of the *General Location Guide for Ultramafic Rocks in California – Areas Likely to Contain Naturally Occurring Asbestos* (CGS, 2000) indicated that NOA has not been mapped in the vicinity of the Project area.

2.1.5 Groundwater Hydrology

The Project area is not located in any defined basin or subbasin according to the Department of Water Resources (DWR). The Project site is bounded by the Coastal Plain of Orange County (8-001) basin on the west, and the Elsinore-Bedford Coldwater subbasin (8-004.02) to the east (DWR, 2020). Much of the water within the Project area is derived from surface water or channeled from other areas.

Based on a review of GeoTracker, the closest site near the Project area is the ARCO am/pm Temescal Canyon (23760 Temescal Canyon Road) in Corona, which is approximately 7 miles northeast of the Project site. Groundwater monitoring well information from 2005 indicates groundwater ranges from 25 to 28 ft below ground surface, and groundwater flow direction is generally to the northeast (EAR, 2005). The EDR report with the GeoCheck® Physical Setting Source Summary identified one state well within a 1-mile radius of the Project site.

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2.1.6 Surface Water Hydrology

The Project site is located within the Santa Ana River - Lower Santa Ana River - Santiago Watershed (801.12). The Santa Ana River Watershed is the largest watershed drainage south of the Sierra and is located largely in a highly urbanized and regulated setting. The watershed is approximately 100 miles long and has more than 50 tributary rivers and creeks. The Santa Ana River Watershed spans part of San Bernardino, Riverside, and Orange counties, draining approximately 2,840 square miles (Water Education Foundation, 2020).

The Santa Ana River Watershed is divided geographically into upper and lower watersheds that are delineated by the 60-year-old Prado Dam, which is a flood-controlled facility located where the river cuts through the Santa Ana Mountains section of the Coast Ranges (Water Education Foundation, 2020).

The Santa Ana watershed drains the Santa Ana River that begins in San Bernardino County and flows west into the Pacific Ocean. The largest tributary rivers include Lytle, Temescal, and Santiago creeks. Like multiple rivers in this area the stream bed is lined with concrete. Much of the area relies on the Santa Ana River and its tributaries due to the climate in Southern California (Water Education Foundation, 2020).

2.1.7 Current Land Use

The Project area is located in a rural setting, surrounded by residential homes on large pieces of land. The Project site is located in the eastern central part of Orange County. The area of potential effects extends to the immediately surrounding properties. The proposed bridge replacement staging area is on a residential property which extends directly north of the bridge (Assessor Parcel Numbers [APN] 105-172-22). The APN Map is shown in Figure 4.

The Project area is surrounded by residential properties and wooded areas:

- To the north of the bridge is a residential property located at 30081 Silverado Canyon Road with APN 105-172-22.
- To the northeast of the bridge are three residential properties located at 30111, 30115, and 30131 Silverado Canyon Road with corresponding APNs 105-172-10, 105-172-23, and 105-172-11, respectively.
- To the southeast of the bridge is a residential property located at 30116 Silverado Canyon Road with APN 105-171-80, and an adjoining property with no address but a corresponding APN 105-171-75.
- To the south of the bridge is Black-Eyed Mary's Saloon, located at 30092 Silverado Canyon Road and APN 105-171-46
- To the southwest of the bridge are two properties with no addresses and corresponding APNs 105-171-35 and 105-171-34.
- To the northwest of the bridge is a residential property located at 30061 Silverado Canyon Road with APN 105-172-21.

Source: WRECO/ESRI, 2020

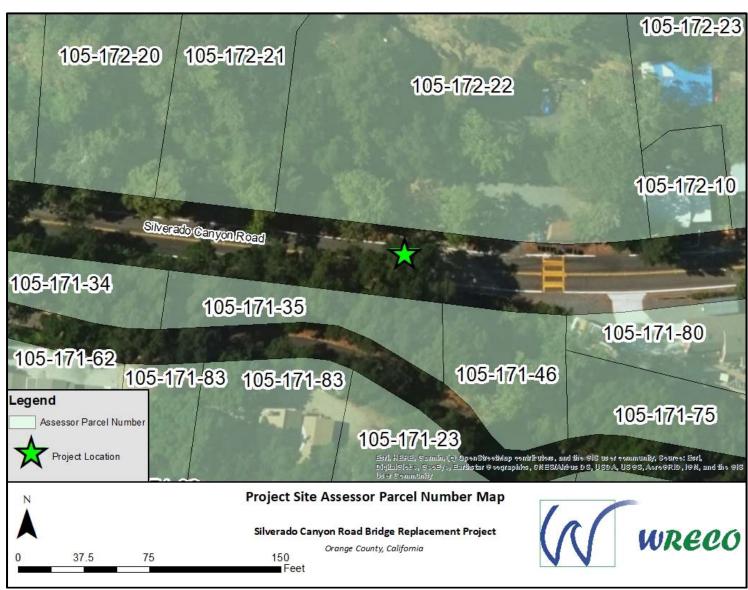


Figure 4. Project Area Parcel Map

April 2021



3 INITIAL SITE ASSESSMENT

WRECO reviewed the California State Water Resources Control Board's (SWRCB) GeoTracker database, the Department of Toxic Substances Control's (DTSC) EnviroStor database, and the EDR databases and historic maps for information relevant to the potential presence of pollution in the Project area. On July 16, 2020, BBC Environmental, Inc. (BBC) also performed a field reconnaissance to evaluate the existing conditions in and near the Project area.

3.1 Records Review

3.1.1 State Water Quality Control Board GeoTracker Database

GeoTracker is the SWRCB's data management system for sites that impact groundwater or have the potential to impact groundwater. GeoTracker's online database contains sites that require groundwater cleanup as well as permitted facilities that could impact groundwater.

A review of the online GeoTracker database listed no records for individual locations within a 1-mile radius of the Project area. According to the SWRCB, there are no known hazardous materials or hazardous waste sites in proximity to the Project area. The GeoTracker sites within 1 mile of the Project area are delineated in Figure 5.

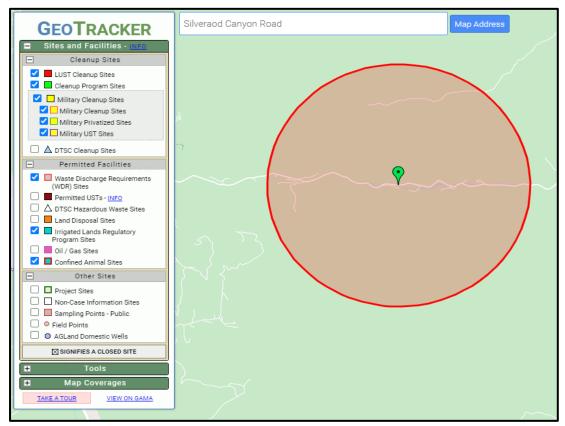


Figure 5. GeoTracker Sites within 1 Mile of the Project Area

Source: GeoTracker, 2020

3.1.2 Department of Toxic Substances Control EnviroStor Database

The DTSC's EnviroStor database is an online search and Geographic Information System tool for identifying sites that have known contamination or sites that may require further investigation. It also identifies facilities that are authorized to treat, store, dispose, or transfer hazardous waste.

A review of the online EnviroStor database listed no sites within 1 mile of the Project area (Figure 6).

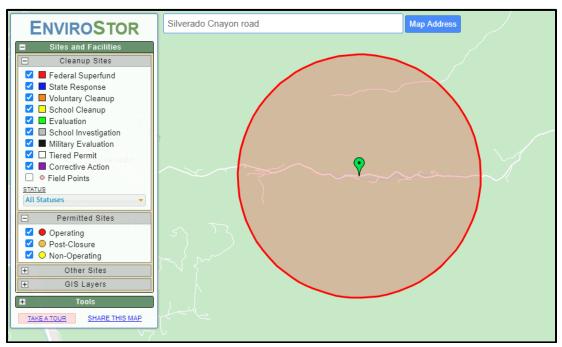


Figure 6. EnviroStor Sites within 1 Mile of the Project Area

Source: EnviroStor, 2020

3.2 EDR Database Record Review

3.2.1 Radius ReportTM with GeoCheck®

In accordance with ASTM Standard E1527-13 and part of the ISA, a computerized radius search of pertinent federal, state, and tribal environmental record databases was performed by EDR of Shelton, Connecticut. The database search was conducted to identify environmental regulatory records associated with the Project area and nearby properties that would indicate environmental conditions (e.g. reported releases of hazardous substances and/or petroleum products), which may have the potential to adversely impact the Project area and surrounding vicinity.

Database listings were reviewed for properties located within a 1-mile radius of the Project area. Database search results produced by EDR were reviewed in conjunction with other records reviewed during this ISA. The Project area (Target Property) was not listed in any of the federal,

state, and local databases searched by EDR. Properties located near the Project area that were identified in one or more of the databases searched are identified in Table 1.

Table 1. Database Findings Summary – Sites Identified

Regulatory Database	Search Distance	Target Property	<1/8	1/8 – 1/4	1/4 – 1/2	1/2-1	>1	Total Plotted
HIST CORTESE	0	0	1	0	NR	NR	1	
Total		0	0	1	0	0	0	1
NOTE: TP = Target Property; NR = Not Requested at this Search Distance								

Only one federal and state agency database listing was identified within the ASTM-specified search distances from the Project area. A total of one site was plotted in the EDR Database, with no sites located within a 0.125-mile radius from the Project area. A release resulting from activities at nearby properties can sometimes impact the surrounding properties. Regulatory records concerning nearby properties are reviewed in order to identify a release of hazardous materials which would be expected to impact conditions in the Project area.

To evaluate whether a database address listing represents a REC with respect to the Project area, the following criteria was applied for this ISA:

- The listing must indicate that a hazardous substance release (or spill or discharge) has occurred or is likely to have occurred. In the absence of a release to the environment, it is unlikely that an address listing represents a REC with respect to the Project area.
- The Project area must be located downgradient to the listed address. Local groundwater flow direction is likely to the northeast based on local topography and nearby groundwater information. An address with a known or suspected release must be upgradient and therefore generally to the southwest of the Project area in order to represent a REC with respect to the Project area. A listed address that is cross- or downgradient with respect to the Project area is unlikely to represent a REC for the Project area.
- A known or suspected release at an off-site location must have affected or must have the potential to affect groundwater flowing toward the Project area.

3.2.2 Project Area

The search identified one property within a 1-mile radius of the Project area that was listed in the HIST CORTESE (Historical Hazardous Waste & Substance Site) State Agency database. The adjoining property to the southwest of the bridge was identified in the EDR database and is discussed below in Table 2.

Table 2. Sites Identified in EDR/Online Databases within 1 Mile of the Project Area

Property Address (Location in Relation to Project Area)	Previous Business Name	Database	Current Use	Summary/ Pollutants of Concern	Case Status	Potential Pollution Risk (low, moderate, high)
29402 Silverado Canyon Road, Silverado, CA 0.2 Miles (1056 ft) SW of Project Area	Orange County Fire Station	EDR (HIST CORTESE)	County Fire	Possible diesel or gasoline leak into the soil.	Closed	Low

3.3 Historical Use Information

Information regarding prior uses of the Project area was collected using available historical reference sources. Information related to the historical use of this property and surrounding area was obtained from a review of aerial photographs, historical topographic maps, fire insurance maps, and city directory information provided as part of the EDR report.

3.3.1 Historical Topographic Maps

A historical map report was prepared by EDR and included a search of a collection of public and private topographic maps. Maps dated 1902 (Corona), 1942 and 1947 (Santiago Peak and Corona), 1950 and 1954 (El Toro, Black Star Canyon, Santiago Peak, and Corona South), 1967 and 1968 (El Toro, Black Star Canyon, and Corona South), 1973 and 1978 (El Toro, Black Star Canyon, Santiago Peak, and Corona South), 1982 (El Toro, Black Star Canyon, Santiago Peak, and Corona South), 1988 (Black Star Canyon, Santiago Peak, and Corona South), 1997 (El Toro, Black Star Canyon, Santiago Peak, and Corona South), and 2012 (Lake Forest, Black Star Canyon, Santiago Peak, and Corona South) were provided for review by EDR. The EDR Historical Topographic Map Report is included as Appendix C, and the topographic map review is summarized in Table 3.

Table 3. Historical Topographic Map Summary

Year	Project Area Use Description/Significant Changes						
1902	The Project area appears rural with only four visible roads shown.						
1942, 1947	Four additional roads are shown south of the Project site. Many buildings are shown along the northern and southern sides of Silverado Canyon Road.						
1950, 1954	The map appears similar to the previous map.						
1967, 1968	The map appears similar to the previous map; however, approximately 1/3 of the southeastern area, which includes the Project site, is unmapped.						
1973,1978	The map appears similar to the previous maps, except additional structures exist to the west of the Project site along Silverado Canyon Road.						
1982, 1988	These maps appear similar to the previous map.						
1997	Several more roads are shown to the north and south of Silverado Canyon Road.						
2012	The map appears similar to the previous map.						

3.3.2 Historical Aerial Photography

Historical site uses can frequently be ascertained from a review of aerial photographs. Aerial photographs of the Project area and surrounding area were provided by EDR for the following years: 1938, 1948, 1953, 1967, 1974, 1985, 1989, 1994, 2009, 2012, and 2016. The EDR Aerial Photo Decade Package is included in Appendix D, and the aerial photograph review is summarized in Table 4.

Table 4. Historical Aerial Photograph Summary

Year	Source	Project Area Use Description/Significant Changes
1938	USDA 1" = 500'	The Project site is remote with no visible structures. Silverado Canyon Road is present and a small dirt road is visible to the southwest.
1948	USGS 1" = 500'	Some structures (likely residential and small commercial properties) were built along Silverado Canyon Road, especially west of the Project site. Several small roads were built shooting off from Silverado Canyon Road.
1953	USDA 1" = 500'	The photograph appears similar to the previous aerial photograph with more buildings along Silverado Canyon Road.
1967	USGS 1" = 500'	The photograph appears similar to the previous aerial photograph with more buildings along Silverado Canyon Road, especially to the east. Many of the offshooting roads east of the Project site have been lengthened. The road to the south of Silverado Canyon Road has been extended to the east.
1974, 1985	USDA 1" = 500'	The photograph appears similar to the previous photo, in 1985, more structures are shown to the east of the Project site.
1989	USDA 1" = 500'	More structures were built to the east of the Project site. A large road was built on the eastern edge of the photograph. It appears to be a driveway to a large building.
1994, 2009, 2012, 2016	USGS/D OQQ; NAIP 1" = 500'	The photograph appears similar to the previous aerial photograph.

3.3.3 Sanborn Fire Insurance Maps

Fire insurance maps (Sanborn Maps) are used to determine fire hazards and were produced for most urban areas beginning in the late 1800s. EDR searched for Fire Insurance Maps for the Project area and none were found. The Certified Sanborn® Map Report is included as Appendix E.

3.3.4 City Directory Review

Historical use near the Project site can be inferred from previous companies that may have operated at and in nearby facilities for the Project footprint. The Project area had listings in the research source (Haines Criss-Cross Directory and the EDR Digital Archive) for the years 1972 to 2014. The EDR City Directory Image Report is provided in Appendix F, and the city directory record review is summarized in Table 5.

Table 5. City Directory Review Summary

Date Range	Description					
2014	Silverado Canyon Road – 27462-Anaheim Sewer Construction; 28192 – Silverado					
	Canyon Market.					
2010	Silverado Canyon Road – 27172-US Forestry Department; 27352 – White LFNT					
	Equipment Rental.					
2005	Silverado Canyon Road – 27271-Bishop Performance Horses; 27462 – Lawrence					
	Tree Services.					
1995	Silverado Canyon Road – 28192 – Silverado Canyon Market; 28222 – Q Tortas					
	Restaurant; 28272 – Pali Café; 29442 – Shadybrook Country Store.					
1992	Silverado Canyon Road – 27271-Equine Industries Horsepower; 27311 –					
	Summersong Kennels; 27352 – South CST Gardening Incorporated.					

Date Range	Description						
1987	Silverado Canyon Road – 27271-Porters Equipment Service; 27311 – Jan Harderlib						
	Photo; 27352 – South CST Gardening Incorporated; 27541 – Silverado Recreation &						
	Park; 28192 – Silverado Canyon Market; 28222 – Silverado Inn, Victors Silverado;						
	28272 – Pali Café; 28281 – Ridls Repair; 29462 – Watson Investment Development.						
1982	Silverado Canyon Road – 27641-Silverado Recreation & Park; 28162 – Porters						
	Equipment Service; 28192 – Silverado Canyon Market; 28222 – Silverado Inn,						
	Victors Silverado; 28272 – Pali Café; 28281 – Canyon Auto Livery.						
1976	Silverado Canyon Road – 27189 - Silverado Rifle Range; 27311 – Fairoane						
	Kennels; 27641 – Silverado Recreation and Park; 28222 – Silverado Inn, Victors						
	Silverado; 28272 – Pali Café; 28281 – Franks Exxon Service; 29501 – Shadybrook						
	Grocery; 29501 – Oata ID Corporation.						
1972	Silverado Canyon Road – 27189 - Silverado Rifle Range; 27311 – Fairoane						
	Kennels; 27641 – Silverado Recreation and Park; 28162 – Collar Bill Arco; 28222 –						
	Silverado Inn, Victors Silverado; 28272 – Pali Café; 29432 – Shadybrook Grocery.						

3.3.5 Local Agency Records Search

WRECO searched the Orange County Department for public records online and did not find any sites located within the vicinity of the Project area.

3.4 Reconnaissance of the Project Area and Vicinity

On July 16, 2020, a site reconnaissance was performed by BBC. The general site setting appeared consistent with the documented historical uses. The site is a rural area that has been used as grazing, woodlands, and residential use. The area remains predominantly comprised of dense natural forest areas, despite an increase in residential homes. Photographs from the site reconnaissance are provided in Appendix G. The Caltrans ISA Checklist is provided in Appendix H.

From the site reconnaissance, potential RECs within the Project area include:

- Potential ADL in exposed soil south of the bridge, from historical vehicle emissions during the leaded gasoline era;
- Potential PCBs and heavy metals from pole-mounted transformers on wooden utility poles (potential arsenic, chromium, creosote, PAHs, and pentachlorophenol);
- Potential LBP on the metal railings on both sides of the bridge, and the yellow traffic striping; and
- Potential asbestos-containing materials (ACM) within the bridge materials.

3.5 ISA Findings and Recommendations

According to historical records, the Project area has been used for residential and grazing and wood land uses. There is little development in the area beyond the number of residential homes. The Project area has always been a rural setting with dense forest.

WRECO recommends a Preliminary Site Investigation (PSI) to test bridge materials for ACM and LBP prior to demolition. Soil that will be disturbed around the bridge should be tested for

constituents of concern, as indicated above. The RECs identified at the Project area are summarized in Table 6 below.

Table 6. Summary of RECs and Recommendations

Description	Evidence of REC Found	Recommended Actions
Aerially Deposited Lead (ADL)	There is potential for elevated levels of lead in exposed soil from historical vehicle emissions, since leaded gasoline was used through the 1970s and the shoulders of the roadway, south of the bridge, may contain ADL.	PSI: -Soil sampling for total lead.
Utility Poles and Pole-mounted Transformers	Treated wood poles (utility poles) along the side of the road may contain a variety of chemicals (arsenic, chromium, copper, creosote, PAHs, and pentachlorophenol) that can runoff and impact soil. Pole-mounted transformers. Located to the northeast of the bridge, may contain PCBs and metals.	PSI: -Soil sampling for PCBs, PAHs, and heavy metals. (If utility poles will be moved or replaced, abate transformers prior to construction)
Existing Bridge Structure May Contain LBP and ACM	Due to the age of the bridge, there is potential for LBP and ACM within the structure.	PSI: -Structural elements sampling for LBP and ACM.

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4 LIMITATIONS

The scope of an ISA is limited to anecdotal and visual evidence of potential RECs and does not include verification of RECs based upon environmental testing. The ISA for the Silverado Canyon Road Bridge Replacement Project, located in Orange County, California, was performed in general accordance with Caltrans standards and AAI procedures and guidelines. All readily available materials pertaining to the Project area were reviewed to prepare this document. Opinions given in this ISA report, relative to the potential for hazardous materials to exist within the Project area, are based on the information derived from the site reconnaissance conducted by BBC on July 16, 2020, and from other research information and sources described herein.

As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during Project construction. The ISA is not a site investigation to prove that the Project area is environmentally devoid of hazardous or toxic materials. Information and data were provided by presumably competent third parties with knowledge about the site and surrounding areas.

This ISA consists of professional opinions and recommendations made in accordance with generally accepted environmental principles and practices. The conclusions are based upon an evaluation of the information gathered and general observations of conditions prevalent at the Project area during the site visit. This ISA does not otherwise provide any implied or expressed guarantees regarding the characteristics or conditions of environmental media at the Project area. Readily available public information sources were reviewed and presumed to provide complete and accurate information, without independent verification. The findings and conclusions in this report are based solely on the limited scope of an ISA, and it is not warranted that the Project area does not contain hazardous materials or petroleum hydrocarbon releases in areas not identified in this report.

This ISA is not intended to identify ALL hazards or unsafe conditions or to imply that others do not exist. This assessment was planned and implemented based on a mutually agreed scope of work and WRECO's experience in performing this type of assessment. WRECO has performed this assessment in a professional manner using the degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. WRECO shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time that this survey was conducted.

WRECO states that no warranties, expressed or implied are made regarding the quality, fitness, or results to be achieved because of this report or impacted by information not properly disclosed to WRECO at the time of this report. No responsibility is assumed for the control or correction of conditions or practices existing at the Project area.

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Appendix A Preliminary Environmental Screening Signed March 26, 2018

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EXHIBIT 6-A PRELIMINARY ENVIRONMENTAL STUDY (PES)

Federal Project No.: BRLO-5955(096) (Federal Program Prefix-Project No., Agree					o., Agreement No.)	Fina	l Des	ign:	September 2018 (100%) (Expected Start Date)
To: Monroe Johnson				From:	Orange Co	ounty	Publ	ic Works	
		(District Local Assistance Engin	neer)						Local Agency)
	_C	altrans District 12				Wei Zhu, I	PE, P	MP	714.647.3976
		(District)				(Pro	ject M	anage	r's Name and Telephone No.)
	_17	750 East 4 th Street, Suite 100				300 N. Flo	wer S	Stree	t Santa Ana, CA 92703
		(Address)							(Address)
	Sa	anta Ana, CA 92705				wei.zhu@	ocpw.		
		(Email Address)						(1	Email Address)
		roject "ON" the Yes Shway System? No							et Local Assistance Engineer tal documentation.
Fede	eral	State Transportation Improveme	nt Pro	ogram	1	15-17			17-04
(FS1	TIP)	http://www.dot.ca.gov/hq/transprog	g/fedp	gm.ht	m: (Currentl	ly Adopted Pla	n Date,)	(Page No.11&12 attach to this
http:	//wv	vw.dot.ca.gov/hq/transprog/oftmp.l	ntm						form)
		ming Preliminary Engineeri	ng		Right o	of Way			Construction
for F	STI	P: $\frac{15/16}{\text{(Fiscal Year)}}$ \$ (Dolla			NA (Fiscal Year) \$	NA (Dollars		2	19/20 \$(Dollars)
Prog	ram	Description as Shown in RTP and - Projects are consistent with 40 outling bridges (no additional travel	FSTIP CFR I	Part 93		or Bridge R	Rehab		ion and Reconstruction – HBP
		Project Description: The Silver the notes section for a detailed project.					dge N	o. 5	5C-0177) over Santiago Creek.
Doe:	s the yout	ary Design Information: project involve any of the following including any additional pertinent	infor	matio		priate boxes			neate on an attached map, plan,
Yes	No 🖂	Widen existing pendage.	Yes		Ground disturba		Yes	No	Engaments (sight of onto)
H		Widen existing roadway Increase number of through lanes	\boxtimes	=	Road cut/fill	nce	X	H	Easements (right of entry) Equipment staging
		New alignment	\boxtimes		Excavation: anti	icipated		Ħ	Temporary access road/detour
	\boxtimes	Capacity increasing—other		1	maximum depth	(50 ft.)	\boxtimes		Utility relocation
		(e.g., channelization)		_				\boxtimes	Right of way acquisition
	M	Realignment	\bowtie		Drainage/culvert Flooding protect				(if yes, attach map with APN)
\boxtimes	H	Ramp or street closure	\boxtimes		Stream channel			\boxtimes	Disposal/borrow sites
\boxtimes		Bridge work					_		
	_				Pile driving			\boxtimes	Part of larger adjacent project
X	H	Vegetation removal			Demolities				Dailmand
Δ	Ш	Tree removal	\boxtimes		Demolition			\boxtimes	Railroad

Re	Required Attachments:								
\boxtimes	Regional map Project location map APN map Project footprint map (existing/proposed right of way) Engineering drawings (existing and proposed cross sections), if available Dorrow/disposal site location map, if applicable (Note: all maps (except project location map and regional maps) should be consistent with the project description (minimum scale: 1" = 200').)								
	Notes to support the conclusions of this checklist/project description continuation page (attached)								
	Examine the project for potential effects on the environment, direct or indirect and answer the following questions.								
	· "construction area," as specified below, includes all areas of ground disturbance associa uding staging and stockpiling areas and temporary access roads.	ted wit	h the project,						
	h answer must be briefly documented on the "Notes" pages at the end of the PES Form.								
Α.	Potential Environmental Effects	Yes	To Be Determined	No					
Ge	eneral								
1.	Will the project require future construction to fully utilize the design capabilities included in the proposed project?								
2.	Will the project generate public controversy?			\boxtimes					
No	ise								
3.	Is the project a Type I project as defined in 23 CFR 772.5(h); "construction on new location or the physical alteration of an existing highway, which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes"?			☒					
4.	Does the project have the potential for adverse construction-related noise impact? (such as related to pile driving)?		\boxtimes						
Air	r Quality								
5.	Is the project in a NAAQS non-attainment or maintenance area?	\boxtimes							
6.	Is the project exempt from the requirement that a conformity determination be made? (If "Yes," state which conformity exemption in 40 CFR 93.126, Table 2 applies): reconstructing bridges	\boxtimes							
7.	Is the project exempt from regional conformity? (If "Yes," state which conformity exemption in 40 CFR 93.127, Table 3 applies):								
8.	If project is not exempt from regional conformity, (If "No" on Question #7)								
	Is project in a metropolitan non-attainment/maintenance area?								
	Is project in an isolated rural non-attainment area? Is project in a CO, PM10 and/or PM2.5 non-attainment/maintenance area?								
-									
Ha	zardous Materials/Hazardous Waste								
9.	Is there potential for hazardous materials (including underground or aboveground tanks, etc.) or hazardous waste (including oil/water separators, waste oil, asbestos-containing material, lead-based paint, ADL, etc.) within or immediately adjacent to the construction area?		⊠						
Wa	ater Quality/Resources								
10.	Does the project have the potential to impact water resources (rivers, streams, bays, inlets, lakes, drainage sloughs) within or immediately adjacent to the project area?	\boxtimes							
11.	Is the project within a designated sole-source aquifer?			\boxtimes					
Co	Coastal Zone								
12.	Is the project within the State Coastal Zone, San Francisco Bay, or Suisun Marsh?			\boxtimes					
Flo	podplain								
13.	Is the construction area located within a regulatory floodway or within the base floodplain (100-year) elevation of a watercourse or lake?	\boxtimes							
Wi	ld and Scenic Rivers								

14. Is the project within or immediately adjacent to a Wild and Scenic River System?

 \boxtimes

Bio	logical Resources						
15.	Is there a potential for federally listed essential fish habitat to occur within o		their critic	al habitat or			
16.	Does the project have the potential to eggs (such as vegetation removal, box						
17.	Is there a potential for wetlands to occ	eur within or adjacent to the construct	ion area?		\boxtimes		
18.	Is there a potential for agricultural wet	tlands to occur within or adjacent to t	he constru	ction area?			\boxtimes
19.	Is there a potential for the introduction	or spread of invasive plant species?					\boxtimes
Sec	ctions 4(f) and 6(f)						
20.	Are there any historic sites or publicly refuges (Section 4[f]) within or immed			or waterfowl			\boxtimes
2 1.	Does the project have the potential to a Conservation Fund Act (Section 6[f])		d with Lar	d and Water			\boxtimes
Vis	uai Resources						
22.	Does the project have the potential to	affect any visual or scenic resources?					\boxtimes
Rel	ocation Impacts						
23.	Will the project require the relocation	of residential or business properties?					\boxtimes
Lar	nd Use, Community, and Farmlan	d Impacts					
24.	Will the project require any right of was easements and utility relocations.	nstruction			×		
25.	Is the project inconsistent with plans a				\boxtimes		
26.	Does the project have the potential to	divide or disrupt neighborhoods/com	munities?				\boxtimes
27.	Does the project have the potential to oppulations?	rity			\boxtimes		
28.	Will the project require the relocation	of public utilities?			\boxtimes		
29.	Will the project affect access to proper	rties or roadways?					\boxtimes
30.	Will the project involve changes in acc	cess control to the State Highway Sys	tem (SHS)?			\boxtimes
31.	Will the project involve the use of a te	mporary road, detour, or ramp closur	e?		\boxtimes		
32.	Will the project reduce available parki	ing?					\boxtimes
33.	Will the project construction encroach	on state or federal lands?					\boxtimes
34.	Will the project convert any farmland	to a different use or impact any farm!	ands?				\boxtimes
Cul	tural Resources						
35.	Is there National Register listed, or por resources within or immediately adjac (Note: Caltrans PQS answers question	cent to the construction area?	r archaeol	ogical		×	
36.	Is the project adjacent to, or would it e	,				П	\boxtimes
	Sections B, C, and D, check approp		mical stud	lies coordinat	ion permit	S OF APPROV	
						о, от шррго	
В.	Required Technical Studies and Analyses	C. Coordination	D.	Anticipated Actions/Per	mits/Appro	ovals	
	Traffic						
	Check one:						
	Traffic Study	Caltrans	\Box	Approval			
	Technical Memorandum	Caltrans	$+\Box$	Approval			
<u> </u>	Discussion in ED Only	Caltrans		Approval			
\boxtimes	Noise						
	Check as applicable:	I					

 \boxtimes

Local Agency

Caltrans

Caltrans

Caltrans

CCC

EPA (S.F. Regional Office)

 \boxtimes

Review Database

Approval of Analysis in ED

Coastal Zone Consistency Determination

Approval

Approval

Approval

 \boxtimes

Water Quality/Resources
Check as applicable:

☐ Technical Memorandum

Discussion in ED Only

Sole-Source Aquifer (Districts 5, 6 and 11)

Coastal Zone

☐ Water Quality Assess. Report

В.	Required Technical Studies and Analyses	C.	Coordination	D.	Anticipated Actions/Permits/Approvals
\boxtimes	Floodplain				•
	Check as applicable:				
			Caltrans		Approval
	☐ Floodplain Evaluation Report		Caltrans		Approval
	Summary Floodplain Encroachment Report		Caltrans		Approval
			Caltrans		Only Practicable Alternative Finding
			FHWA		Approves significant encroachments and concurs in Only Practicable Alternative Findings
	Wild and Scenic Rivers				
			River Managing Agency		Wild and Scenic Rivers Determination
\boxtimes	Biological Resources				
	Check as applicable:				
	NES, Minimal Impact	Ø	Caltrans		Approval
	□ NES				
	☐ BA		Caltrans		Approves for Consultation
			USFWS		Section 7 Informal/Formal Consultation
			NOAA Fisheries		
	EFH Evaluation		NOAA Fisheries		MSA Consultation
	☐ Bio-Acoustic Evaluation		NOAA Fisheries		Approval
	☐ Technical Memorandum		Caltrans		Approval
	Wetlands				
	Check as applicable:				
	☐ WD and Assessment		Caltrans		Approval
			ACOE		Wetland Verification
			NRCS		Agricultural Wetland Verification
			Caltrans		Wetlands Only Practicable Alternative Finding
	Invasive Plants				
	☐ Discussion in ED Only		Caltrans		Approval
	Section 4(f)				
	Check as applicable:				
			Caltrans		Determine Temporary Occupancy
,	De minimis		Caltrans		De minimis finding
	Programmatic 4(f) Evaluation Type:		Caltrans		Approval
	☐ Individual 4(f) Evaluation		Caltrans		Approval
			Agency with Jurisdiction	+-	r r
			SHPO		
			DOI		
			HUD		
			USDA		
		L			

В.	Required Technical Studies and Analyses	C.	Coordination	D.	Anticipated Actions/Permits/Approvals
	Section 6(f)		Agency with Jurisdiction NPS		Determines Consistency with Long-Term Management Plan
			NPS		Approves Conversion
	Visual Resources Technical Memorandum Minor VIA Moderate VIA Advance/Complex VIA		Caltrans Caltrans Caltrans Caltrans		Approval Approval Approval
	Relocation Impacts				
	Check one: Relocation Impact Memo Relocation Impact Study Relocation Impact Report		Caltrans Caltrans Caltrans		Approval Approval
⊠	Land Use and Community Impacts Check one:				· · · · · · · · · · · · · · · · · · ·
	☐ CIA		Caltrans		Approval
	Technical Memorandum # 28		Caltrans		Approval
	Discussion in ED Only # 24 28, and 31	Ø	Caltrans		Approval
	Construction/Encroachment				
	on State Lands Check as applicable: SLC Jurisdiction Caltrans Jurisdiction		SLC Caltrans		SLC Lease Encroachment Permit
	☐ SP Jurisdiction		SP		Encroachment Permit
	Construction/Encroachment				
	on Federal Lands		Federal Agency with Jurisdiction		Encroachment Permit
	Construction/Encroachment On Indian Trust Lands		Bureau of Indian Affairs		Right of Way Permit
	Farmlands				
	Check one:				
5	☐ CIA		Caltrans		Approval
2	Technical Memorandum		Caltrans		Approval
	Discussion in ED Only		Caltrans		Approval
	Check as applicable: ☐ Form AD 1006		NRCS		Approves Conversion
3	_		CDOC		Approves Conversion
	☐ Conversion to Non-Agri Use		ACOE		

В.	Required Technical Studies and Analyses	C.	Coordination	D.	Anticipated Actions/Permits/ Approvals
	Cultural Resources				
	(PQS completes this section)				
	Check as applicable:				
			Caltrans PQS		Screened Undertaking
	☐ APE Map		Caltrans PQS and DLAE		Approves APE Map
			Local Preservation Groups and/or Native American Tribes		Provides Comments Regarding Concerns with Project
	☐ HPSR		Caltrans		Approves for Consultation
	☐ ASR				
	☐ HRER				
	Finding of Effect Report		Caltrans		Concurs on No Effect, No Adverse Effect with Standard Conditions
			SHPO		Letter of Concurrence on Eligibility, No Adverse Effect without Standard
	☐ MOA		Caltrans		Approves MOA
			SHPO		Approves MOA
			ACHP (if requested)		Approves MOA
\boxtimes	Permits				
	Copies of permits and a list of		ACOE		Section 404 Nationwide Permit
	mitigation commitments are		ACOE		Section 404 Individual Permit
	mandatory submittals following		Caltrans/ACOE/EPA		NEPA/404 Integration MOU
	NEPA approval.		USFWS		
			NOAA Fisheries		
			ACOE		Rivers and Harbors Act Section 10 Permit
			USCG		USCG Bridge Permit
			RWQCB	×	Section 401 Water Quality Certification
		×	CDFG	×	Section 1602 Streambed Alteration Agreement
			RWQCB		NPDES Permit
			CCC		Coastal Zone Permit
			Local Agency		
			BCDC		BCDC Permit

Notes: Additional studies may be required for other federal agencies.

Exhibit 6-A Preliminary Environmental Study (PES) Form

ACHP	=	Advisory Council on Historic Preservation	HRER	=	Historical Resources Evaluation Report
ACOE	=	U.S. Army Corps of Engineers	HUD	=	U.S. Housing and Urban Development
ADL	=	Aerially Deposited Lead	MOA	=	Memorandum of Agreement
APE	=	Area of Potential Effect	MSA	=	Magnuson-Stevens Fishery Conservation and
APN	=	Assessor Parcel Number			Management Act
ASR	=	Archaeological Survey Report	NEPA	=	National Environmental Policy Act
BA	=	Biological Assessment	NADR	=	Noise Abatement Decision Report
BCDC	=	Bay Conservation and Development Commission	NES	=	Natural Environment Study
BE	=	Biological Evaluation	NHPA	=	National Historic Preservation Act
ВО	=	Biological Opinion	NOAA	=	National Oceanic and Atmospheric Administration
Cal EPA	=	California Environmental Protection Agency	NMFS		National Marine Fisheries Service
CCC	=	California Coastal Commission	NPDES	=	National Pollutant Discharge Elimination System
CDFG	=	California Department of Fish and Game	NPS	=	National Park Service
CDOC	=	California Department of Conservation	NRCS	=	Natural Resources Conservation Service
CE	=	Categorical Exclusion	PM10	=	Particulate Matter 10 Microns in Diameter or Less
CIA	=	Community Impact Assessment	PM2.5	=	Particulate Matter 2.5 Microns in Diameter or Less
CWA	=	Clean Water Act	PMP	=	Project Management Plan
DLAE	=	District Local Assistance Engineer	PQS	=	Professionally Qualified Staff
DOI	=	U.S. Department of Interior	ROD	=	Record of Decision
DTSC	=	Department of Toxic Substances Control	RTIP	=	Regional Transportation Improvement Program
EA	=	Environmental Assessment	RTP	=	Regional Transportation Plan
ED	=	Environmental Document	RWQCB	=	Regional Water Quality Control Board
EFH	=	Essential Fish Habitat	SER	=	Standard Environmental Reference
EIS	=	Environmental Impact Statement	SEP	=	Senior Environmental Planner
EPA	=	U.S. Environmental Protection Agency	SHPO	=	State Historic Preservation Officer
FEMA	=	Federal Emergency Management Agency	SLC	=	State Lands Commission
FHWA	=	Federal Highway Administration	SP	=	State Parks
FONSI	=	Finding of No Significant Impacted	TIP	=	Transportation Improvement Program
FTIP	=	Federal Transportation Improvement Program	USCG	=	U.S. Coast Guard
HPSR	=	Historic Property Survey Report	USDA	=	U.S. Department of Agriculture
			USFWS	=	U.S. Fish and Wildlife Service
			WD	=	Wetland Delineation

E.	Preliminary Environmental Document Classification (NEPA)						
	Based on the evaluation of the project, the environmental document to be developed should be:						
		CROCK SEC: Environmental Impact Statement (Note: Engagement with participating agencies in accordance with 23 USC 139 required)					
	Compliance with 23 USC 139 regarding Participating A		accordance want 25 OSC 155 requires				
	Complex Environmental Assessment	- Serrosco redunen					
	Routine Environmental Assessment						
	Categorical Exclusion without required technical studies.						
	<u> </u>	Categorical Exclusion with required technical studies (if Categorical Exclusion is selected, check one of the following):					
	Section 23 USC 326						
	⊠ 23 CFR 771 activity (c)(28)						
	23 CFR 771 activity (d) ()						
	Activity listed in the Section 23 USC 326						
	Section 23 USC 327						
F.	F. Public Availability and Public Hearing						
• •	Check as applicable:						
	☐ Not Required						
	Notice of Availability of Environmental Document						
	Public Meeting						
	☐ Notice of Opportunity for a Public Hearing						
	Public Hearing Required						
G.	G. Signatures						
			Ð				
	Local Agency Staff and/or Consultant Signature						
	1) . A						
	Im Show	5,53,8	714.667,1632				
	Lin Shama O (Signature of Preparer) 1 Levin Shannon	(Date)	(Telephone No.)				
	Kevin Shannon						
	(Name)						
-							
	Local Agency Project Engineer Signature						
	This document was prepared under my supervision, according to	the Local Assistan	ce Procedures Manual Exhibit & R				
	"Instructions for Completing the Preliminary Environmental Stu	dy Form."	oc i rooman de manrana, immeri e-15,				
	· SC						
		12 26 18	-11 117 2271				
	(Menature of Local Agency)	(Data)	714.647.3976 (Telephone No.)				
	gaignature of Local Agency)	(Date)	(Tetephone No.)				

Caltrans District Professionally Qualified Staff (PQS)	Signature	
Project does not meet definition of an "undertaking"; no fu #35).	orther review is necessary und	der Section 106 ("No" Section A,
Project is limited to the type of activity listed in Attachment provided in the PES Form, the project does not have the po		
Project is limited to the type of activity listed in Attachment procedures or information is needed to determine the potential Records Search	nt 2 of the Section 106 PA, b	ut the following additional
Project meets the definition of an "undertaking"; all proper Attachment 4 of the Section 106 PA ("No" Section A, #35		cempt from evaluation per
The proposed undertaking is considered to have the potent compliance are indicated in Sections B, C, and D of this Pl		
(Signature of Professionally Qualified Staff) 5955	3/26/18 (096)	457-328-616; (Telephone No.)
The following signatures are required for all CEs, routine a Caltrans District Senior Environmental Planner (or De I have reviewed this Preliminary Environmental Study (PES) F sufficient. I concur with the studies to be performed and the re-	esignee) and DLAE Signa orm and determined that the	atures submittal is complete and
(Signature of Senior Environmental Planner or Designee) Charles Baker (Name)	3/26/18 (Date)	657-328-6139 (Telephone No.)
(Signature of District Local Assistance Engineer or Designee) (Name)	3/26/18 (Date)	657-328-6275 (Telephone No.)
HQ DEA Environmental Coordinator concurrence(date)	Emai	concurrence attached.

Preliminary Environmental Investigation

Notes to Support the Conclusions of the PES Form

(May Also Include Continuation of Detailed Project Description)

DETAILED PROJECT DESCRIPTION (continued from page 6-73)

Purpose and Need. Caltrans' Structures Maintenance and Investigations (SM&I) stated the Silverado Canyon Bridge (Bridge No. 55C-0177) is eligible for replacement due to the fact that its Sufficiency Rating (SR) is less than 80 (SR=47) and that is also has been flagged as Functionally Obsolete (FO).

The Silverado Canyon Road Bridge, constructed in 1947, provides the main access for approximately 270 homes in the unincorporated community of Silverado. It is critical to keep the bridge in service and avoid potential deficiencies that would take the bridge out of service. Seasonal floods and wild fires occur in the Santa Ana Mountains that affect this community and quick emergency access from the Canyon is necessary during such events. In 2007, the Santiago Fire forced evacuation of residents of Silverado Canyon and their principal means of evacuation was across this bridge. The fire burned for 31 days and the bridge provided access to fire fighting vehicles and personnel during the official state of emergency.

Project Location and Limits. The bridge is located in the unincorporated community of Silverado along Silverado Canyon Road approximately one (3.65) miles (4.25 road miles) east of Santiago Canyon Road. The bridge is 0.75 miles east of the intersection of Silverado Canyon Road and Hillside Lane.

Project Description. The proposed replacement bridge work will include: the removal of the existing steel I-girder superstructure with steel floor beam bridge, abutments and retaining walls; use of half of the existing bridge as a one-way bridge; and construction of a wider, voided concrete slab bridge, abutments, and retaining walls in the same skew and approximate length of 45 feet. The bridge width selected has been modified from full standard curb to curb width of 40' to 30' to match the rural community road while adding sidewalk and roadway shoulders (5.0 feet on both sides) not currently provided. Silverado Canyon Road will not be widened or realigned. The same skew will be maintained. The bridge width will improve the existing conditions at the creek crossing while being more cost effective than the full standards. The project will also require temporary relocation for an existing water line and coordination with adjacent power pole owner to protect in place the poles and overhead lines during construction activities. Easements will not be required; however, a temporary right of entry easement may be required. Minimal vegetation will be removed and two sycamore trees will be removed. Debris from demolition activities will be collected and removed from the site to prevent materials from entering the Silverado Creek channel. Approximately 650 cubic yards of material will be excavated to accommodate the new bridge. A temporary construction staging area is located approximately 0.50 miles east of the bridge. Refer to the attached map. The major components of the proposed bridge construction work are listed as follows:

- Remove approximately one half of the bridge and construct a support system under the bridge to provide a single lane bridge. Construct a temporary traffic signal for one-way traffic across the half-bridge. A full closure and detour are not possible at this location.
- 2. Construct one half of the new voided slab bridge.
- 3. Coordinate with utility owners for temporary water line, permanent water line, and obtain permits for work near the overhead power lines.
- 4. Replace retaining walls and abutments as needed for new bridge.
- 5. Move one-way traffic to new portion of bridge deck. Remove last half of old bridge.

Schedule and Cost. The estimated duration of construction is approximately 225 days with construction anticipated to commence in September, 2019 and conclude in September, 2020. The construction cost estimate is approximately \$1,095,647.

Brief Explanation of How Project Complies, or Will Comply with Applicable Federal Mandate (Part A):

GENERAL

- 1. The project will not require future construction to fully utilize the design capabilities included in the proposed project. Moreover, the project will have independent utility and be fully usable upon completion.
- 2. The project will not generate public controversy. Replacing the bridge would benefit the community and serve all residents and visitors to Silverado Canyon. In addition, the Silverado Fire Station would be able to maintain fire protection services.

NOISE

- 3. The project is not classified as a Type 1 project. The project does not propose a change in the vertical or horizontal alignment. The project replaces an existing bridge. The number of travel lanes will not increase; however, shoulders (5.0 feet on both sides) will be added on both sides. As such, the project is not a Type 1 project as defined by 23 CFR 772.5(h). The County's Noise Control Ordinance (Division 6 of the Orange County Codified Ordinances) will be enforced during construction.
- 4. Temporary construction-related noise impacts would be associated with the dismantling and replacing the bridge. Pile driving is not proposed. However, spread footing or CIDH piles may be used. The nearest residential structure to the bridge is approximately 75 feet.

AIR QUALITY

5. The site is located within the South Coast Air Quality Management District. According to the Areas Subject to Transportation Conformity Requirements In California Table (March 20, 2016), the following criteria pollutants are in non-attainment or maintenance:

Maintenance: Carbon Monoxide and Nitrogen Dioxide

Non-attainment: Ozone, Particulate Matter (PM₁₀) and PM_{2.5} (1997 and 2006 standards)

- 6. The project is exempt from the provisions of 40 CFR 93.126. Projects to correct, improve, or eliminate a hazardous location or features are listed on Table 2 (Exempt Projects) under Air Quality.
- 7. Because the project is exempt from the provisions of 40 CFR 93.126, a regional conformity analysis is not required.
- 8. Because the project is exempt from the provisions of 40 CFR 93.126, a regional conformity analysis is not required.

HAZARDOUS MATERIALS / HAZARDOUS WASTE

9. No hazardous materials are located within or immediately adjacent to the project site although the bridge may contain lead-based paint. The California Department of Substances Control EnviroStor program for hazardous wastes and substances was queried on May 18, 2017. The potential for hazardous materials are to be determined. An Initial Site Assessment (Phase I) will be conducted. See attached Hazardous Waste Sites map.

WATER QUALITY / RESOURCES

- 10. The bridge is located over Silverado Creek and will require construction activities to be performed adjacent to and within this feature. Santiago Creek is identified as a 303(d) impaired water body in the State Water Resources Control Board 2010 Integrated Report. The bridge construction activities have the potential to impact water resources during the construction phase from paint on the bridge that may flake off during removal, oils from construction vehicles, and trash from construction workers. A Storm Water Pollution Prevention Plan will be prepared and implemented, which contains Best Management Practices that will control these potential pollutants.
- 11. The site is not located within any of the four Sole-Source aquifers as depicted on the map on the U.S. EPA's website. Refer to the attached map that depicts the project site in relation to a Sole-Source aquifer.

COASTAL ZONE

12. The project site is located in Orange County, in Southern California and therefore not within the San Francisco Bay, or Suisun Marsh. The site is not located within the Coastal Zone according to the Orange County Zoning Map. The nearest Coastal Zone boundary is located approximately 11.0 miles to the southwest.

FLOODPLAIN

13. The site is located within Zone AE (Special Flood Hazard Area) according to FEMA's Flood Insurance Rate Map Panel Number 06059C0326J. Silverado Creek conveys flows from its watershed in the Santa Ana Mountains with a hundred year storm flow of approximately 6,000 cfs. Refer to the attached Flood Hazard Zone map.

WILD AND SCENIC RIVERS

14. The site is not within or adjacent to a Wild and Scenic River System according to the list provided by Caltrans' Environmental Handbook, Chapter 19. The nearest Wild and Scenic River is Bautastia Creek located approximately 44 miles east of the site in the San Bernardino National Forest and not within 0.25 miles of a protected corridor. Orange County does not contain any Wild and Scenic Rivers.

BIOLOGICAL RESOURCES

- 15. The IPaC Resources List generated by the U.S. Fish and Wildlife Service's Information for Planning Conservation database identified several threatened or endangered species in Orange County that could occur on the site and thereby be potentially impacted. Refer to the attached IPaC Resources List. The site is inland from the Pacific Ocean and would not have the potential to affect fish species covered by a Fisheries Management Plan.
- 16. The IPaC Resources List generated by the U.S. Fish and Wildlife Service's Information for Planning Conservation database identified several threatened or endangered species including migratory bird species in Orange County that could occur on the site and thereby be potentially impacted. Refer to the attached IPaC Trust report.
- 17. The site is located in a wetland as identified by the National Wetland Inventory Wetlands Mapper database and classified as Freshwater Forested/Shrub Wetland. The potential for construction activities for the single span bridge to impact this wetland would not occur because construction activities would not occur in the creek bottom or within the ordinary high water mark. Refer to the attached map depicting the proximity of the site to the National Wetland Inventory map.
- 18. The site is not located in Agricultural Wetlands as identified by the National Wetland Inventory Wetlands Mapper database. Refer to the attached map.
- 19. The California Invasive Plant Council's CalWeedMapper program does not identify the site as containing invasive plant species.

SECTIONS 4(f) AND 6(f)

- 20. No historic sites, publically owned parks, recreation areas, wildlife or waterfowl refuges located within or adjacent to the site. The HBP application does not identify the bridge as historic. In addition, Caltrans' Structure Maintenance and Investigations list of Historical Significance Local Agency Bridges (October 2016) determined that the bridge is not of historical significance. Refer to the attached list.
- 21. According to the National Park Service Land and Water Conservation Fund (LWCF), Detailed Listing of Grants, the site is not within or adjacent to properties that have used LWCF funds. This list was queried on May 22, 2017. Land uses adjacent to the site are rural residential.

VISUAL RESOURCES

22. According to the Visual Impact Assessment, the project received a score of eight (8) indicating a low potential to affect a visual or scenic resource. Refer to the attached Visual Impact Analysis.

RELOCATION IMPACTS

23. The project will replace the existing bridge in its current location. No residential or business properties would be relocated by this project.

LAND USE, COMMUNITY, AND FARMLAND IMPACTS

- 24. The project will not require additional right-of-way. A temporary right of entry easement may be required and a water line will need to be temporarily relocated. Refer to the attached easement plan.
- 25. The project is consistent with the land use concept of the Silverado-Modjeska Specific Plan and would not conflict with the general development guidelines.
- 26. The bridge will be replaced in the same location and does not have the potential to divide a community, disrupt the neighborhood and community cohesion, affect community resources, or affect employment. Land uses in the vicinity of the site are characterized by rural residential development.

- 27. The site is located in a rural, unincorporated portion of Orange County. According to the U.S. Census Bureau, American Fact Finder, Poverty Status in the past 12 Months, 2010-2014 American Community Survey 5-Year Estimates, the percent of minority population within Zip Code 92676 is 4.7 percent below the poverty level. The project will not have the potential to disproportionately affect low-income and minority populations.
- 28. The existing water line attached to the bridge will require temporary relocation. Overhead power lines and utility poles will be protected in place.
- 29. During construction, half of the bridge would be removed at a time providing one traffic lane for one-way traffic across the bridge. A temporary traffic signal will be installed to control the one-way traffic at each end of the bridge. Upon project completion, the layout and function of the connecting roadways and properties would remain unchanged.
- 30. The project would not involve changes in access control to the State Highway System. The nearest State Route is SR 241 (Eastern Transportation Corridor Toll Road) located approximately six and one-half (6.5) miles to the southwest. Refer to the attached map depicting the location of the project to State Highways.
- 31. Half of the bridge would be removed from service at a time. No temporary roads or detours are required. No ramps are located in close proximity to the site.
- 32. Existing parking is not located on or adjacent to the bridge. As a result, parking will not be affected.
- 33. No state or federal lands are adjacent to the project site.
- 34. The project replaces a bridge in the same location and is adjacent to rural residential development. According to the Orange County Important Farmland 2012 map, the site is classified as Other Land; no Farmland is adjacent to the site.

CULTURAL RESOURCES

- 35. Historic properties and archaeological resources impacts are to be determined by Caltrans' professionally qualified staff (PQS). A Cultural Records Search was prepared for this project that included a cultural resources literature review at the South Central Coastal Information Center of the California Historical Resources Information Center at California State University, Fullerton.
- **36.** The site is not located on tribal lands nor is the site adjacent to any tribal lands.

Distribution

- 1) Original DLAE, 2) Local Agency Project Manager, 3) DLA Environmental Coordinator
- 4) Senior Environmental Planner (or designee), 5) District PQS

Updated: 05/15/08

Appendix B EDR Radius MapTM Report with GeoCheck®

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Silverado Canyon Road Silverado Canyon Road Bridge

Inquiry Number: 6098668.2s

Silverado, CA 92676

June 19, 2020

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

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Thank you for your business.Please contact EDR at 1-800-352-0050 with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

SILVERADO CANYON ROAD BRIDGE SILVERADO, CA 92676

COORDINATES

Latitude (North): 33.7461530 - 33° 44′ 46.15″ Longitude (West): 117.6058420 - 117° 36′ 21.03″

Universal Tranverse Mercator: Zone 11 UTM X (Meters): 443884.3 UTM Y (Meters): 3733981.8

Elevation: 1545 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5636483 SANTIAGO PEAK, CA

Version Date: 2012

Northeast Map: 5636469 CORONA SOUTH, CA

Version Date: 2012

Southwest Map: 5636489 EL TORO, CA

Version Date: 2012

Northwest Map: 5636465 BLACK STAR CANYON, CA

Version Date: 2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140603 Source: USDA

MAPPED SITES SUMMARY

Target Property Address: SILVERADO CANYON ROAD BRIDGE SILVERADO, CA 92676

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
1	ORANGE CO. FIRE STAT	29402	HIST CORTESE	Higher	1092, 0.207, SW

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				
NPLProposed NPLNPL LIENS.	Proposed National Priority List Sites			
Federal Delisted NPL site list				
Delisted NPL	National Priority List Deletions			
Federal CERCLIS list				
	Federal Facility Site Information listing Superfund Enterprise Management System			

Federal	CERCL	IS NFRAP	site list
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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	CRA - Large Quantity Generators	
RCRA-SQG	CRA - Small Quantity Generators	
RCRA-VSQG	CRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quanti	ity

Conservers)

Generators)

Federal institutional controls / engineering controls registries

LUCIS.....Land Use Control Information System

US ENG CONTROLS..... Engineering Controls Sites List US INST CONTROLS...... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE...... State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

...... Geotracker's Leaking Underground Fuel Tank Report INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land CPS-SLIC..... Statewide SLIC Cases

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 VCP...... Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT_____ Waste Management Unit Database

SWRCY...... Recycler Database

HAULERS...... Registered Waste Tire Haulers Listing

INDIAN ODI_____ Report on the Status of Open Dumps on Indian Lands DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI...... Open Dump Inventory 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 CERS HAZ WASTE..... CERS HAZ WASTE

Toxic Pits...... Toxic Pits Cleanup Act Sites

US CDL...... National Clandestine Laboratory Register PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST Listing

HIST UST..... Hazardous Substance Storage Container Database CERS TANKS...... California Environmental Reporting System (CERS) Tanks

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 Orange Co. Industrial Site.... List of Industrial Site Cleanups 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

ROD...... Records Of Decision

RMP..... Risk Management Plans

PRP..... Potentially Responsible Parties PADS..... PCB Activity Database System

ICIS...... Integrated Compliance Information System

Act)/TSCA (Toxic Substances Control Act)

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER...... PCB Transformer Registration Database

RADINFO...... Radiation Information Database

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS..... Incident and Accident Data

CONSENT..... Superfund (CERCLA) Consent Decrees

INDIAN RESERV.....Indian Reservations

FUSRAP..... Formerly Utilized Sites Remedial Action Program

UMTRA..... Uranium Mill Tailings Sites

LEAD SMELTERS..... Lead Smelter Sites

US AIRS...... Aerometric Information Retrieval System Facility Subsystem

US MINES..... Mines Master Index File

ABANDONED MINES..... Abandoned Mines

FINDS_____Facility Index System/Facility Registry System

UXO...... Unexploded Ordnance Sites

DOCKET HWC..... Hazardous Waste Compliance Docket Listing ECHO..... Enforcement & Compliance History Information

FUELS PROGRAM..... EPA Fuels Program Registered Listing

CA BOND EXP. PLAN..... Bond Expenditure Plan

Cortese "Cortese" Hazardous Waste & Substances Sites List

Financial Assurance Information Listing

HAZNET..... Facility and Manifest Data

ICE.....ICE

HWP..... EnviroStor Permitted Facilities Listing

HWT...... Registered Hazardous Waste Transporter Database

MINES..... Mines Site Location Listing

MWMP..... Medical Waste Management Program Listing

NPDES...... NPDES Permits Listing

PEST LIC...... Pesticide Regulation Licenses Listing

PROC..... Certified Processors Database

Notify 65..... Proposition 65 Records

UIC Listing
UIC GEO (GEOTRACKER)
WASTEWATER PITS Oil Wastewater Pits Listing

WDS..... Waste Discharge System

WIP...... Well Investigation Program Case List MILITARY PRIV SITES...... MILITARY PRIV SITES (GEOTRACKER)

PROJECT.....PROJECT (GEOTRACKER)

WDR______ Waste Discharge Requirements Listing CIWQS______ California Integrated Water Quality System

CERS..... CERS

MINES MRDS...... Mineral Resources Data System
HWTS....... Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR Hist Auto______ EDR Exclusive Historical Auto Stations EDR Hist Cleaner_____ EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

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.

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

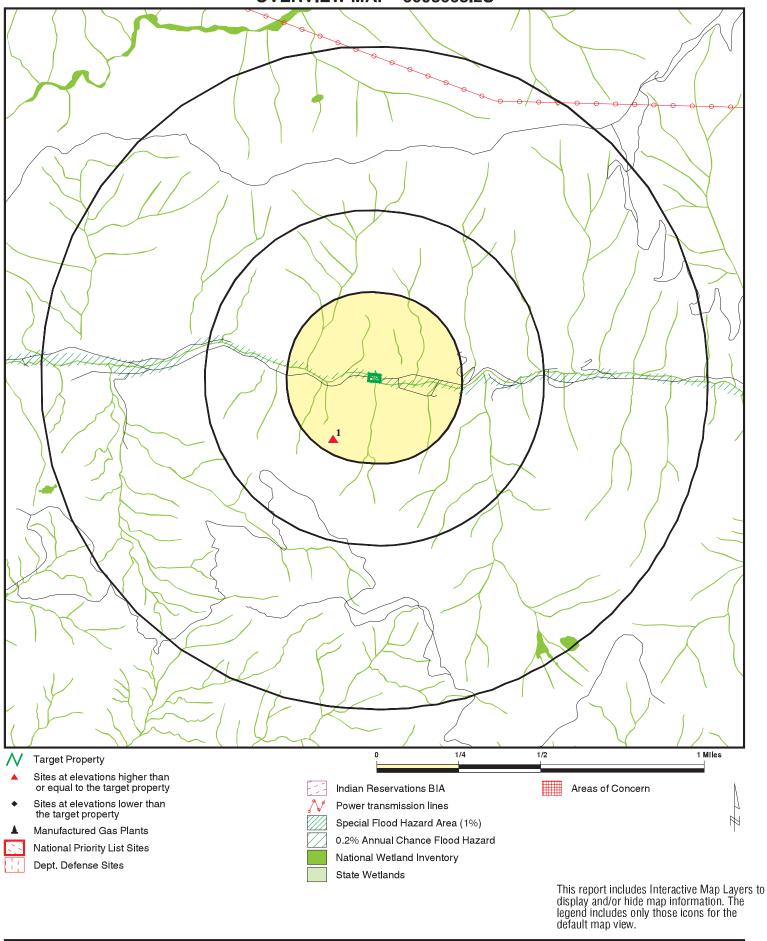
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ORANGE CO. FIRE STAT Reg Id: 083002059T	29402	SW 1/8 - 1/4 (0.207 mi.)	1	9

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
SILVERADO CANYON DIPOSAL STATION #	RGA LF
SILVERADO CANYON DIPOSAL STATION #	RGA LF
SILVERADO CANYON DIPOSAL STATION #	RGA LF

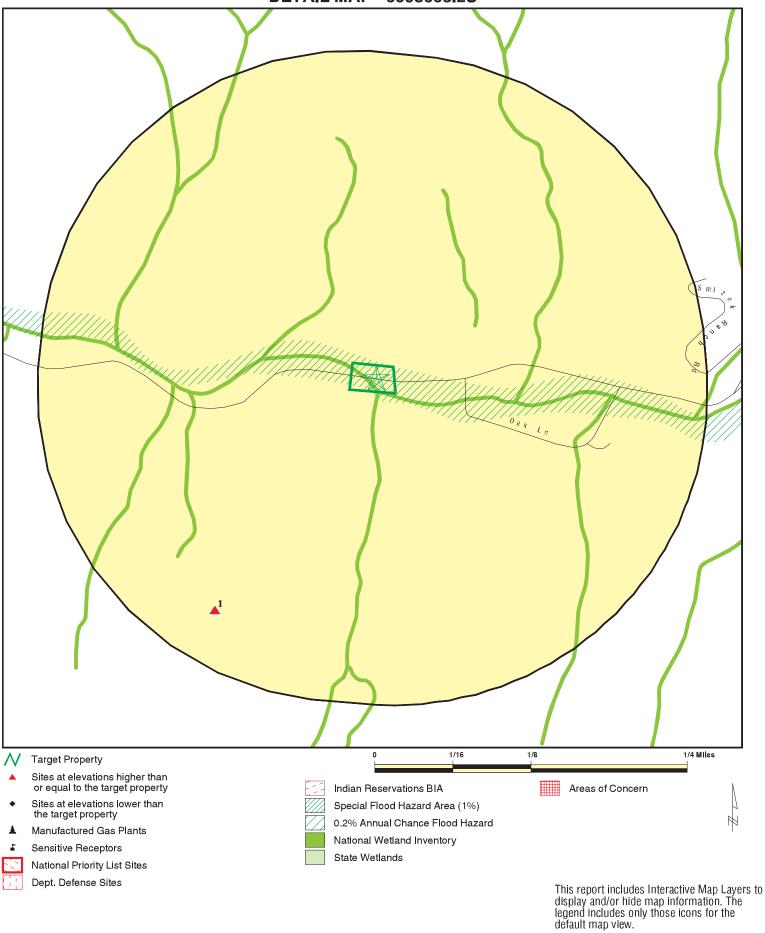
OVERVIEW MAP - 6098668.2S



SITE NAME: Silverado Canyon Road
ADDRESS: Silverado Canyon Road Bridge
Silverado CA 92676
LAT/LONG: 33.746153 / 117.605842

CLIENT: WRECO
CONTACT: Joseph Mcconnell
INQUIRY #: 6098668.2s
DATE: June 19, 2020 7:03 pm

DETAIL MAP - 6098668.2S



SITE NAME: Silverado Canyon Road
ADDRESS: Silverado Canyon Road Bridge
Silverado CA 92676
LAT/LONG: 33.746153 / 117.605842

CLIENT: WRECO
CONTACT: Joseph Mcconnell
INQUIRY #: 6098668.2s
DATE: June 19, 2020 7:03 pm

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted		
STANDARD ENVIRONMENT	STANDARD ENVIRONMENTAL RECORDS									
Federal NPL site list										
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0		
Federal Delisted NPL sit	e list									
Delisted NPL	1.000		0	0	0	0	NR	0		
Federal CERCLIS list										
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0		
Federal CERCLIS NFRAI	P site list									
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0		
Federal RCRA CORRAC	TS facilities li	st								
CORRACTS	1.000		0	0	0	0	NR	0		
Federal RCRA non-COR	RACTS TSD fa	acilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0		
Federal RCRA generator	rs list									
RCRA-LQG RCRA-SQG RCRA-VSQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0		
Federal institutional con engineering controls reg										
LUCIS US ENG CONTROLS US INST CONTROLS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0		
Federal ERNS list										
ERNS	0.001		0	NR	NR	NR	NR	0		
State- and tribal - equiva	lent NPL									
RESPONSE	1.000		0	0	0	0	NR	0		
State- and tribal - equiva	lent CERCLIS	;								
ENVIROSTOR	1.000		0	0	0	0	NR	0		
State and tribal landfill a solid waste disposal site										
SWF/LF	0.500		0	0	0	NR	NR	0		
State and tribal leaking s	storage tank l	ists								
LUST	0.500		0	0	0	NR	NR	0		

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST CPS-SLIC	0.500 0.500		0 0	0	0	NR NR	NR NR	0 0
State and tribal registere	d storage tar	nk lists						
FEMA UST UST AST INDIAN UST	0.250 0.250 0.250 0.250		0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0
State and tribal voluntary	cleanup site	es						
INDIAN VCP VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie	lds sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	TAL RECORDS	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	olid							
WMUDS/SWAT SWRCY HAULERS INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.001 0.500 0.500 0.500 0.500		0 0 0 0 0 0	0 0 NR 0 0 0	0 0 NR 0 0 0	NR NR NR NR NR NR	NR NR NR NR NR NR	0 0 0 0 0 0
Local Lists of Hazardous Contaminated Sites	waste /							
US HIST CDL HIST Cal-Sites SCH CDL CERS HAZ WASTE Toxic Pits US CDL PFAS	0.001 1.000 0.250 0.001 0.250 1.000 0.001 0.500		0 0 0 0 0 0	NR 0 0 NR 0 0 NR	NR 0 NR NR NR 0 NR	NR 0 NR NR 0 NR	NR NR NR NR NR NR NR	0 0 0 0 0 0
Local Lists of Registered	Storage Tar	nks						
SWEEPS UST HIST UST CERS TANKS CA FID UST	0.250 0.250 0.250 0.250		0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2 DEED	0.001 0.500		0 0	NR 0	NR 0	NR NR	NR NR	0 0
Records of Emergency Re	elease Repo	rts						
HMIRS CHMIRS LDS MCS Orange Co. Industrial Site SPILLS 90	0.001 0.001 0.001 0.001 0.001 0.001		0 0 0 0 0	NR NR NR NR NR NR	NR NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0 0
Other Ascertainable Reco	ords							
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR EPA WATCH LIST 2020 COR ACTION TSCA TRIS SSTS ROD RMP RAATS PRP PADS ICIS FTTS MLTS COAL ASH DOE COAL ASH DOE COAL ASH EPA PCB TRANSFORMER RADINFO HIST FTTS DOT OPS CONSENT INDIAN RESERV FUSRAP UMTRA LEAD SMELTERS US AIRS US MINES ABANDONED MINES FINDS UXO DOCKET HWC ECHO	0.250 1.000 1.000 0.500 0.001			0000RR0RRORRRRRRRRRRORRRO0000RR00RORR	$N \circ \circ \circ N R R R R R S N N N N R R R R R R R R$	$N \circ \circ R R R R R R \circ R R R R R R R R R R $	N N N N N N N N N N N N N N N N N N N	
FUELS PROGRAM CA BOND EXP. PLAN Cortese	0.250 1.000 0.500		0 0 0	0 0 0	NR 0 0	NR 0 NR	NR NR NR	0 0 0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
								
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 Financial Assurance	0.001 0.001		0 0	NR NR	NR NR	NR NR	NR NR	0 0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	1	0	NR	NR	1
HWP	1.000		Ö	Ö	Ö	0	NR	0
HWT	0.250		Ö	ő	NR	NR	NR	0
MINES	0.250		Ö	Ö	NR	NR	NR	Ö
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR NR	NR NR	NR NR	NR	0
CIWQS CERS	0.001 0.001		0 0	NR NR	NR NR	NR NR	NR NR	0 0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		Ö	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		Ő	NR	NR	NR	NR	Ö
MINES MRDS	0.001		Ö	NR	NR	NR	NR	Ö
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL	RECORDS							
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNI	MENT ARCHIVI	<u>ES</u>						
Exclusive Recovered Gov	rt. Archives							
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		Ō	NR	NR	NR	NR	0
- Totals		0	0	1	0	0	0	1

Search

Distance (Miles)

Target Property

< 1/8 1/8 - 1/4

1/4 - 1/2

1/2 - 1 > 1

Total Plotted

NOTES:

Database

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID MAP FINDINGS Direction

Distance **EDR ID Number** Elevation Site Database(s) **EPA ID Number**

ORANGE CO. FIRE STATION # HIST CORTESE \$101300096

SW 29402 N/A 1/8-1/4 SILVERADO CANYON, CA 92667

0.207 mi. 1092 ft.

HIST CORTESE: Relative:

Higher ORANGE CO. FIRE STATION # edr_fname:

edr_fadd1: 29402 Actual: 2116 ft.

City,State,Zip: SILVERADO CANYON, CA 92667

Region: Facility County Code: CORTESE 30 Reg By: LTNKA Reg Id: 083002059T Count: 3 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SILVERADO	S114732742	SILVERADO CANYON DIPOSAL STATION #	NW COR SANTIAGO CYN R & SILVER		RGA LF
SILVERADO	S114732741	SILVERADO CANYON DIPOSAL STATION #	NEAR SNATIAGO CYN & SILVERADO		RGA LF
SILVERADO	S114732738	SILVERADO CANYON DIPOSAL STATION #	NEAR SANTIAGO CYN & SILVERADO		RGA LF



To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2020 Source: EPA
Date Data Arrived at EDR: 05/06/2020 Telephone: N/A

Date Made Active in Reports: 05/28/2020 Last EDR Contact: 06/03/2020

Number of Days to Update: 22 Next Scheduled EDR Contact: 07/13/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2020 Source: EPA
Date Data Arrived at EDR: 05/06/2020 Telephone: N/A

Date Made Active in Reports: 05/28/2020 Last EDR Contact: 06/03/2020 Number of Days to Update: 22 Next Scheduled EDR Contact:

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Source: EPA

Telephone: 202-564-4267 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020

Number of Days to Update: 22

Source: EPA Telephone: N/A

Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019 Date Data Arrived at EDR: 04/05/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 39

Source: Environmental Protection Agency Telephone: 703-603-8704

Last EDR Contact: 04/03/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020

Number of Days to Update: 22

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020

Number of Days to Update: 22

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 57

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 03/25/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 57

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 03/25/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 57

Source: Environmental Protection Agency Telephone: (415) 495-8895

Last EDR Contact: 03/25/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 57

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 03/25/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation
and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database
includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste
as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate
less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 57

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 03/25/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020 Date Data Arrived at EDR: 05/19/2020 Date Made Active in Reports: 06/18/2020

Number of Days to Update: 30

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 05/14/2020

Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020 Date Data Arrived at EDR: 02/20/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 85

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020 Date Data Arrived at EDR: 02/20/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 85

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 09/07/2020

Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2020 Date Data Arrived at EDR: 03/24/2020 Date Made Active in Reports: 06/18/2020

Number of Days to Update: 86

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 03/24/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity.

These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/27/2020 Date Data Arrived at EDR: 01/28/2020 Date Made Active in Reports: 04/09/2020

Number of Days to Update: 72

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 04/28/2020

Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/27/2020 Date Data Arrived at EDR: 01/28/2020 Date Made Active in Reports: 04/09/2020

Number of Days to Update: 72

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 04/28/2020

Next Scheduled EDR Contact: 08/10/2020 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 inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/10/2020 Date Data Arrived at EDR: 02/11/2020 Date Made Active in Reports: 04/20/2020

Number of Days to Update: 69

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320 Last EDR Contact: 05/12/2020

Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003 Date Data Arrived at EDR: 05/19/2003 Date Made Active in Reports: 06/02/2003

Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)

Telephone: 805-542-4786 Last EDR Contact: 07/18/2011

Next Scheduled EDR Contact: 10/31/2011 Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: see region list Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 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

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001 Date Data Arrived at EDR: 04/23/2001 Date Made Active in Reports: 05/21/2001

Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-637-5595 Last EDR Contact: 09/26/2011

Next Scheduled EDR Contact: 01/09/2012 Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005 Date Data Arrived at EDR: 02/15/2005 Date Made Active in Reports: 03/28/2005

Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)

Telephone: 909-782-4496 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004 Date Data Arrived at EDR: 10/20/2004 Date Made Active in Reports: 11/19/2004

Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-622-2433 Last EDR Contact: 09/19/2011

Next Scheduled EDR Contact: 01/02/2012 Data Release Frequency: No Update Planned

LUST REG 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 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003 Date Data Arrived at EDR: 09/10/2003 Date Made Active in Reports: 10/07/2003

Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)

Telephone: 530-542-5572 Last EDR Contact: 09/12/2011

Next Scheduled EDR Contact: 12/26/2011 Data Release Frequency: No Update Planned

LUST REG 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 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004 Date Data Arrived at EDR: 09/07/2004 Date Made Active in Reports: 10/12/2004

Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)

Telephone: 213-576-6710 Last EDR Contact: 09/06/2011

Next Scheduled EDR Contact: 12/19/2011 Data Release Frequency: No Update Planned

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 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: 10/02/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019 Date Data Arrived at EDR: 12/17/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 55

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019 Date Data Arrived at EDR: 12/05/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 67

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/04/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/27/2020

Number of Days to Update: 85

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 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: 10/03/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/14/2020

Number of Days to Update: 72

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/14/2020

Number of Days to Update: 1

Source: State Water Resources Control Board Telephone: 866-480-1028

Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020

Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003 Date Data Arrived at EDR: 04/07/2003 Date Made Active in Reports: 04/25/2003

Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)

Telephone: 707-576-2220 Last EDR Contact: 08/01/2011

Next Scheduled EDR Contact: 11/14/2011 Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004 Date Data Arrived at EDR: 10/20/2004 Date Made Active in Reports: 11/19/2004

Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-286-0457 Last EDR Contact: 09/19/2011

Next Scheduled EDR Contact: 01/02/2012 Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006 Date Data Arrived at EDR: 05/18/2006 Date Made Active in Reports: 06/15/2006

Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)

Telephone: 805-549-3147 Last EDR Contact: 07/18/2011

Next Scheduled EDR Contact: 10/31/2011 Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004 Date Data Arrived at EDR: 11/18/2004 Date Made Active in Reports: 01/04/2005

Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)

Telephone: 213-576-6600 Last EDR Contact: 07/01/2011

Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005 Date Data Arrived at EDR: 04/05/2005 Date Made Active in Reports: 04/21/2005

Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)

Telephone: 916-464-3291 Last EDR Contact: 09/12/2011

Next Scheduled EDR Contact: 12/26/2011 Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005 Date Data Arrived at EDR: 05/25/2005 Date Made Active in Reports: 06/16/2005

Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch

Telephone: 619-241-6583 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004 Date Data Arrived at EDR: 09/07/2004 Date Made Active in Reports: 10/12/2004

Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region

Telephone: 530-542-5574 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004 Date Data Arrived at EDR: 11/29/2004 Date Made Active in Reports: 01/04/2005

Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region

Telephone: 760-346-7491 Last EDR Contact: 08/01/2011

Next Scheduled EDR Contact: 11/14/2011 Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008 Date Data Arrived at EDR: 04/03/2008 Date Made Active in Reports: 04/14/2008

Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)

Telephone: 951-782-3298 Last EDR Contact: 09/12/2011

Next Scheduled EDR Contact: 12/26/2011 Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007 Date Data Arrived at EDR: 09/11/2007 Date Made Active in Reports: 09/28/2007

Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-467-2980 Last EDR Contact: 08/08/2011

Next Scheduled EDR Contact: 11/21/2011 Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020 Date Data Arrived at EDR: 03/19/2020 Date Made Active in Reports: 06/09/2020

Number of Days to Update: 82

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 03/19/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/09/2020 Date Data Arrived at EDR: 03/10/2020 Date Made Active in Reports: 05/20/2020

Number of Days to Update: 71

Source: SWRCB Telephone: 916-341-5851 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/09/2020 Date Data Arrived at EDR: 03/11/2020 Date Made Active in Reports: 05/26/2020

Number of Days to Update: 76

Source: State Water Resources Control Board

Telephone: 916-327-7844 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016 Date Data Arrived at EDR: 07/12/2016 Date Made Active in Reports: 09/19/2016

Number of Days to Update: 69

Source: California Environmental Protection Agency

Telephone: 916-327-5092 Last EDR Contact: 06/10/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/14/2020

Number of Days to Update: 72

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 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: 10/02/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019 Date Data Arrived at EDR: 12/05/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 67

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/27/2020

Number of Days to Update: 85

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020

Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 68

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 05/20/2020

Next Scheduled EDR Contact: 08/03/2020 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

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/27/2020 Date Data Arrived at EDR: 01/28/2020 Date Made Active in Reports: 04/09/2020

Number of Days to Update: 72

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 04/28/2020

Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015 Date Data Arrived at EDR: 09/29/2015 Date Made Active in Reports: 02/18/2016

Number of Days to Update: 142

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 06/17/2020

Next Scheduled EDR Contact: 10/05/2020

Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/24/2020 Date Made Active in Reports: 06/05/2020

Number of Days to Update: 73

Source: State Water Resources Control Board

Telephone: 916-323-7905 Last EDR Contact: 03/24/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020 Date Data Arrived at EDR: 06/02/2020 Date Made Active in Reports: 06/09/2020

Number of Days to Update: 7

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 06/02/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000 Date Data Arrived at EDR: 04/10/2000 Date Made Active in Reports: 05/10/2000

Number of Days to Update: 30

Source: State Water Resources Control Board

Telephone: 916-227-4448 Last EDR Contact: 04/16/2020

Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/09/2020 Date Data Arrived at EDR: 03/10/2020 Date Made Active in Reports: 05/19/2020

Number of Days to Update: 70

Source: Department of Conservation

Telephone: 916-323-3836 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing A listing of registered waste tire haulers.

> Date of Government Version: 11/15/2019 Date Data Arrived at EDR: 11/15/2019 Date Made Active in Reports: 01/23/2020

Number of Days to Update: 69

Source: Integrated Waste Management Board

Telephone: 916-341-6422 Last EDR Contact: 05/06/2020

Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 04/16/2020

Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258

Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009

Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020 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: 05/01/2020

Next Scheduled EDR Contact: 08/10/2020

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: 03/18/2020 Date Data Arrived at EDR: 03/19/2020 Date Made Active in Reports: 06/09/2020

Number of Days to Update: 82

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 05/18/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005 Date Data Arrived at EDR: 08/03/2006 Date Made Active in Reports: 08/24/2006

Number of Days to Update: 21

Source: Department of Toxic Substance Control

Telephone: 916-323-3400 Last EDR Contact: 02/23/2009

Next Scheduled EDR Contact: 05/25/2009 Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/27/2020 Date Data Arrived at EDR: 01/28/2020 Date Made Active in Reports: 04/09/2020

Number of Days to Update: 72

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 04/28/2020

Next Scheduled EDR Contact: 08/10/2020 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: 12/31/2018 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 04/15/2020

Number of Days to Update: 70

Source: Department of Toxic Substances Control

Telephone: 916-255-6504 Last EDR Contact: 05/14/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995 Date Data Arrived at EDR: 08/30/1995 Date Made Active in Reports: 09/26/1995

Number of Days to Update: 27

Source: State Water Resources Control Board

Telephone: 916-227-4364 Last EDR Contact: 01/26/2009

Next Scheduled EDR Contact: 04/27/2009 Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 01/21/2020 Date Data Arrived at EDR: 01/22/2020 Date Made Active in Reports: 04/01/2020

Number of Days to Update: 70

Source: CalEPA

Telephone: 916-323-2514 Last EDR Contact: 04/21/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020 Date Data Arrived at EDR: 03/19/2020 Date Made Active in Reports: 06/09/2020

Number of Days to Update: 82

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 05/18/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 03/09/2020 Date Data Arrived at EDR: 03/10/2020 Date Made Active in Reports: 05/19/2020

Number of Days to Update: 70

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020

Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994 Date Data Arrived at EDR: 07/07/2005 Date Made Active in Reports: 08/11/2005

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: N/A

Last EDR Contact: 06/03/2005 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/19/2019 Date Data Arrived at EDR: 12/23/2019 Date Made Active in Reports: 02/21/2020

Number of Days to Update: 60

Source: Department of Public Health Telephone: 707-463-4466

Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990 Date Data Arrived at EDR: 01/25/1991 Date Made Active in Reports: 02/12/1991

Number of Days to Update: 18

Source: State Water Resources Control Board

Telephone: 916-341-5851 Last EDR Contact: 07/26/2001 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 08/01/2019 Date Data Arrived at EDR: 08/02/2019 Date Made Active in Reports: 10/11/2019

Number of Days to Update: 70

Source: San Francisco County Department of Public Health

Telephone: 415-252-3896 Last EDR Contact: 04/23/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 01/21/2020 Date Data Arrived at EDR: 01/22/2020 Date Made Active in Reports: 04/01/2020

Number of Days to Update: 70

Source: California Environmental Protection Agency

Telephone: 916-323-2514 Last EDR Contact: 04/21/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994 Date Data Arrived at EDR: 09/05/1995 Date Made Active in Reports: 09/29/1995

Number of Days to Update: 24

Source: California Environmental Protection Agency

Telephone: 916-341-5851 Last EDR Contact: 12/28/1998 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/03/2020 Date Data Arrived at EDR: 03/05/2020 Date Made Active in Reports: 05/14/2020

Number of Days to Update: 70

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 05/27/2020

Next Scheduled EDR Contact: 09/14/2020

Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020

Number of Days to Update: 22

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/02/2020 Date Data Arrived at EDR: 03/03/2020 Date Made Active in Reports: 05/13/2020

Number of Days to Update: 71

Source: DTSC and SWRCB Telephone: 916-323-3400 Last EDR Contact: 06/02/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/27/2020 Date Data Arrived at EDR: 03/24/2020 Date Made Active in Reports: 06/18/2020

Number of Days to Update: 86

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 03/24/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/24/2019 Date Data Arrived at EDR: 01/22/2020 Date Made Active in Reports: 03/30/2020

Number of Days to Update: 68

Source: Office of Emergency Services

Telephone: 916-845-8400 Last EDR Contact: 04/21/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/14/2020

Number of Days to Update: 1

Source: State Water Qualilty Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/22/2013

Number of Days to Update: 50

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/25/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 57

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 03/25/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/28/2020 Date Data Arrived at EDR: 02/19/2020 Date Made Active in Reports: 05/14/2020

Number of Days to Update: 85

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 05/18/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS

Telephone: 888-275-8747 Last EDR Contact: 04/10/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018 Date Data Arrived at EDR: 04/11/2018 Date Made Active in Reports: 11/06/2019

Number of Days to Update: 574

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 04/06/2020

Next Scheduled EDR Contact: 07/20/2020

Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017

Number of Days to Update: 63

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 08/24/2020 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: 03/23/2020 Date Data Arrived at EDR: 03/24/2020 Date Made Active in Reports: 06/18/2020

Number of Days to Update: 86

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 03/24/2020

Next Scheduled EDR Contact: 07/06/2020 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: 05/04/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 73

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 05/08/2020

Next Scheduled EDR Contact: 08/17/2020

Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 06/21/2017 Date Made Active in Reports: 01/05/2018

Number of Days to Update: 198

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 06/17/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 79

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 05/21/2020

Next Scheduled EDR Contact: 08/31/2020 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: 05/01/2019 Date Data Arrived at EDR: 10/23/2019 Date Made Active in Reports: 01/15/2020

Number of Days to Update: 84

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 04/21/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020

Number of Days to Update: 22

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 09/14/2020 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: 11/05/2019 Date Data Arrived at EDR: 11/20/2019 Date Made Active in Reports: 04/17/2020

Number of Days to Update: 149

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 04/15/2020

Next Scheduled EDR Contact: 08/03/2020 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: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 06/09/2020

Number of Days to Update: 34

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 08/17/2020 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: 10/09/2019 Date Data Arrived at EDR: 10/11/2019 Date Made Active in Reports: 12/20/2019

Number of Days to Update: 70

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 04/10/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017

Number of Days to Update: 79

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 03/26/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 08/18/2017

Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 08/18/2017

Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019 Date Data Arrived at EDR: 10/25/2019 Date Made Active in Reports: 01/15/2020

Number of Days to Update: 82

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 04/10/2020

Next Scheduled EDR Contact: 08/03/2020 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: 12/31/2018 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 01/15/2020

Number of Days to Update: 42

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 06/05/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 11/11/2019

Number of Days to Update: 251

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 06/01/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019 Date Data Arrived at EDR: 11/06/2019 Date Made Active in Reports: 02/10/2020

Number of Days to Update: 96

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 05/08/2020

Next Scheduled EDR Contact: 08/17/2020

Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019 Date Data Arrived at EDR: 07/01/2019 Date Made Active in Reports: 09/23/2019

Number of Days to Update: 84

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008

Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020 Date Data Arrived at EDR: 01/28/2020 Date Made Active in Reports: 04/17/2020

Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 04/28/2020

Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2019 Date Data Arrived at EDR: 01/17/2020 Date Made Active in Reports: 03/06/2020

Number of Days to Update: 49

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 03/26/2020

Next Scheduled EDR Contact: 07/20/2020

Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 02/22/2017 Date Made Active in Reports: 09/28/2017

Number of Days to Update: 218

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 03/25/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 07/14/2015 Date Made Active in Reports: 01/10/2017

Number of Days to Update: 546

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 04/10/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 09/14/2018

Number of Days to Update: 3

Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 04/29/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019 Date Data Arrived at EDR: 11/15/2019 Date Made Active in Reports: 01/28/2020

Number of Days to Update: 74

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/18/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2020 Date Data Arrived at EDR: 05/06/2020 Date Made Active in Reports: 05/28/2020

Number of Days to Update: 22

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites

may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017

Number of Days to Update: 100

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/26/2017

Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017

Number of Days to Update: 100

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/26/2017

Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 03/31/2020 Date Data Arrived at EDR: 04/01/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 50

Source: DOL, Mine Safety & Health Admi

Telephone: 202-693-9424 Last EDR Contact: 05/27/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/11/2020 Date Data Arrived at EDR: 02/25/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 86

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 05/21/2020

Next Scheduled EDR Contact: 09/07/2020 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: 01/16/2018 Date Data Arrived at EDR: 02/28/2020 Date Made Active in Reports: 05/22/2020

Number of Days to Update: 84

Source: USGS

Telephone: 703-648-7709 Last EDR Contact: 05/27/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011

Number of Days to Update: 97

Source: USGS

Telephone: 703-648-7709 Last EDR Contact: 05/21/2020

Next Scheduled EDR Contact: 09/07/2020

Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/05/2020 Date Data Arrived at EDR: 03/06/2020 Date Made Active in Reports: 05/29/2020

Number of Days to Update: 84

Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020 Date Data Arrived at EDR: 03/03/2020 Date Made Active in Reports: 05/28/2020

Number of Days to Update: 86

Source: EPA

Telephone: (415) 947-8000 Last EDR Contact: 06/02/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 01/17/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 74

Source: Department of Defense Telephone: 703-704-1564 Last EDR Contact: 04/03/2020

Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 07/26/2018 Date Made Active in Reports: 10/05/2018

Number of Days to Update: 71

Source: Environmental Protection Agency

Telephone: 202-564-0527 Last EDR Contact: 05/18/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/05/2020 Date Data Arrived at EDR: 01/07/2020 Date Made Active in Reports: 03/06/2020

Number of Days to Update: 59

Source: Environmental Protection Agency

Telephone: 202-564-2280 Last EDR Contact: 04/07/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels

Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/18/2020 Date Data Arrived at EDR: 02/19/2020 Date Made Active in Reports: 05/14/2020

Number of Days to Update: 85

Source: EPA

Telephone: 800-385-6164 Last EDR Contact: 05/19/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of

Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989 Date Data Arrived at EDR: 07/27/1994 Date Made Active in Reports: 08/02/1994

Number of Days to Update: 6

Source: Department of Health Services

Telephone: 916-255-2118 Last EDR Contact: 05/31/1994 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste

Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 03/24/2020 Date Made Active in Reports: 06/05/2020

Number of Days to Update: 73

Source: CAL EPA/Office of Emergency Information

Telephone: 916-323-3400 Last EDR Contact: 03/24/2020

Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019 Date Data Arrived at EDR: 05/14/2019 Date Made Active in Reports: 07/17/2019

Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department

Telephone: 925-454-2361 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/03/2020 Date Data Arrived at EDR: 02/04/2020 Date Made Active in Reports: 04/09/2020

Number of Days to Update: 65

Source: San Francisco County Department of Environmental Health

Telephone: 415-252-3896 Last EDR Contact: 04/23/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/27/2020 Date Data Arrived at EDR: 02/28/2020 Date Made Active in Reports: 05/07/2020

Number of Days to Update: 69

Source: Antelope Valley Air Quality Management District

Telephone: 661-723-8070 Last EDR Contact: 05/27/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/04/2019 Date Data Arrived at EDR: 01/29/2020 Date Made Active in Reports: 04/09/2020

Number of Days to Update: 71

Source: Department of Toxic Substance Control

Telephone: 916-327-4498 Last EDR Contact: 05/27/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/25/2020 Date Data Arrived at EDR: 03/26/2020 Date Made Active in Reports: 06/15/2020

Number of Days to Update: 81

Source: South Coast Air Quality Management District

Telephone: 909-396-3211 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 06/24/2019 Date Made Active in Reports: 08/22/2019

Number of Days to Update: 59

Source: California Air Resources Board

Telephone: 916-322-2990 Last EDR Contact: 06/16/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/03/2020 Date Data Arrived at EDR: 04/07/2020 Date Made Active in Reports: 04/15/2020

Number of Days to Update: 8

Source: State Water Resoruces Control Board

Telephone: 916-445-9379 Last EDR Contact: 04/03/2020

Next Scheduled EDR Contact: 08/03/2020

Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/21/2020 Date Data Arrived at EDR: 01/23/2020 Date Made Active in Reports: 04/01/2020

Number of Days to Update: 69

Source: Department of Toxic Substances Control

Telephone: 916-255-3628 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/19/2020 Date Data Arrived at EDR: 02/20/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 64

Source: California Integrated Waste Management Board

Telephone: 916-341-6066 Last EDR Contact: 04/29/2020

Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 05/29/2019 Date Made Active in Reports: 07/22/2019

Number of Days to Update: 54

Source: California Environmental Protection Agency

Telephone: 916-255-1136 Last EDR Contact: 04/15/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/18/2020 Date Data Arrived at EDR: 02/19/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 65

Source: Department of Toxic Subsances Control

Telephone: 877-786-9427 Last EDR Contact: 05/18/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001 Date Data Arrived at EDR: 01/22/2009 Date Made Active in Reports: 04/08/2009

Number of Days to Update: 76

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 01/22/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/18/2020 Date Data Arrived at EDR: 02/19/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 65

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 05/18/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/06/2020 Date Data Arrived at EDR: 01/07/2020 Date Made Active in Reports: 03/05/2020

Number of Days to Update: 58

Source: Department of Toxic Substances Control

Telephone: 916-440-7145 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/09/2020 Date Data Arrived at EDR: 03/10/2020 Date Made Active in Reports: 05/19/2020

Number of Days to Update: 70

Source: Department of Conservation

Telephone: 916-322-1080 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the

state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/12/2020 Date Data Arrived at EDR: 03/03/2020 Date Made Active in Reports: 05/14/2020

Number of Days to Update: 72

Source: Department of Public Health

Telephone: 916-558-1784 Last EDR Contact: 06/02/2020

Next Scheduled EDR Contact: 09/14/2020

Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/10/2020 Date Data Arrived at EDR: 02/11/2020 Date Made Active in Reports: 04/20/2020

Number of Days to Update: 69

Source: State Water Resources Control Board

Telephone: 916-445-9379 Last EDR Contact: 05/12/2020

Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/02/2020 Date Data Arrived at EDR: 03/03/2020 Date Made Active in Reports: 05/14/2020

Number of Days to Update: 72

Source: Department of Pesticide Regulation

Telephone: 916-445-4038 Last EDR Contact: 06/02/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Quarterly

PROC: Certified Processors Database A listing of certified processors.

> Date of Government Version: 03/09/2020 Date Data Arrived at EDR: 03/10/2020 Date Made Active in Reports: 05/19/2020

Number of Days to Update: 70

Source: Department of Conservation

Telephone: 916-323-3836 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2020 Date Data Arrived at EDR: 03/13/2020 Date Made Active in Reports: 05/21/2020

Number of Days to Update: 69

Source: State Water Resources Control Board

Telephone: 916-445-3846 Last EDR Contact: 06/10/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/09/2020 Date Data Arrived at EDR: 03/10/2020 Date Made Active in Reports: 05/19/2020

Number of Days to Update: 70

Source: Deaprtment of Conservation

Telephone: 916-445-2408 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resource Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020

Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019 Date Data Arrived at EDR: 01/07/2020 Date Made Active in Reports: 03/09/2020

Number of Days to Update: 62

Source: RWQCB, Central Valley Region

Telephone: 559-445-5577 Last EDR Contact: 04/10/2020

Next Scheduled EDR Contact: 07/20/2020

Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007 Date Data Arrived at EDR: 06/20/2007 Date Made Active in Reports: 06/29/2007

Number of Days to Update: 9

Source: State Water Resources Control Board

Telephone: 916-341-5227 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009 Date Data Arrived at EDR: 07/21/2009 Date Made Active in Reports: 08/03/2009

Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board

Telephone: 213-576-6726 Last EDR Contact: 06/17/2020

Next Scheduled EDR Contact: 10/05/2020 Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020

Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2020 Date Data Arrived at EDR: 03/10/2020 Date Made Active in Reports: 05/19/2020

Number of Days to Update: 70

Source: State Water Resources Control Board

Telephone: 916-341-5810 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/02/2020 Date Data Arrived at EDR: 03/03/2020 Date Made Active in Reports: 05/13/2020

Number of Days to Update: 71

Source: State Water Resources Control Board

Telephone: 866-794-4977 Last EDR Contact: 06/02/2020

Next Scheduled EDR Contact: 09/14/2020

Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 01/21/2020 Date Data Arrived at EDR: 01/22/2020 Date Made Active in Reports: 04/01/2020

Number of Days to Update: 70

Source: California Environmental Protection Agency

Telephone: 916-323-2514 Last EDR Contact: 04/21/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020

Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Varies

SAMPLING POINT: Sampling Point? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020

Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC

wells, water supply wells, etc?) being monitored

Date of Government Version: 05/13/2020 Date Data Arrived at EDR: 05/13/2020 Date Made Active in Reports: 05/15/2020

Number of Days to Update: 2

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020

Data Release Frequency: Varies

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 02/05/2015 Date Made Active in Reports: 03/06/2015

Number of Days to Update: 29

Source: EPA

Telephone: 202-564-2497 Last EDR Contact: 03/26/2020

Next Scheduled EDR Contact: 07/20/2020

Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System

The Hazardous Waste Tracking System (HWTS) is the Department of Toxic Substances Control?s data repository for hazardous waste Identification (ID) numbers and manifest information. HWTS generates reports on hazardous waste shipments for generators, transporters, and TSDFs.

Date of Government Version: 10/15/2019 Date Data Arrived at EDR: 11/14/2019 Date Made Active in Reports: 02/07/2020

Number of Days to Update: 85

Source: Department of Toxic Substances Control

Telephone: 916-324-2444 Last EDR Contact: 03/26/2020

Next Scheduled EDR Contact: 07/20/2020

Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011 Date Data Arrived at EDR: 08/05/2011 Date Made Active in Reports: 09/29/2011

Number of Days to Update: 55

Source: EPA, Office of Water Telephone: 202-564-2496 Last EDR Contact: 06/08/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018 Date Data Arrived at EDR: 10/21/2019 Date Made Active in Reports: 10/24/2019

Number of Days to Update: 3

Source: USGS

Telephone: 703-648-6533 Last EDR Contact: 05/21/2020

Next Scheduled EDR Contact: 09/07/2020

Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014 Date Data Arrived at EDR: 01/06/2015 Date Made Active in Reports: 05/06/2015

Number of Days to Update: 120

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 03/26/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Semi-Annually

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 Source: EDR, Inc.
Date Data Arrived at EDR: N/A Telephone: N/A
Date Made Active in Reports: N/A Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Source: EDR, Inc.

Date Data Arrived at EDR: N/A Telephone: N/A

Date Made Active in Reports: N/A Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/13/2014 Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/30/2013 Number of Days to Update: 182

Source: State Water Resources Control Board Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019 Date Data Arrived at EDR: 01/11/2019 Date Made Active in Reports: 03/05/2019

Source: Alameda County Environmental Health Services

Source: Alameda County Environmental Health Services

Telephone: 510-567-6700 Last EDR Contact: 03/26/2020

Next Scheduled EDR Contact: 07/20/2020 Number of Days to Update: 53 Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/06/2020 Date Data Arrived at EDR: 01/07/2020 Date Made Active in Reports: 03/06/2020

Telephone: 510-567-6700

Last EDR Contact: 04/20/2020

Number of Days to Update: 59 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 05/18/2020 Date Data Arrived at EDR: 05/19/2020 Date Made Active in Reports: 06/01/2020

Number of Days to Update: 13

Source: Amador County Environmental Health

Telephone: 209-223-6439 Last EDR Contact: 05/18/2020

Next Scheduled EDR Contact: 08/17/2020

Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017 Date Data Arrived at EDR: 04/25/2017 Date Made Active in Reports: 08/09/2017

Number of Days to Update: 106

Source: Public Health Department Telephone: 530-538-7149 Last EDR Contact: 03/26/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 03/27/2020 Date Data Arrived at EDR: 03/31/2020 Date Made Active in Reports: 06/15/2020

Number of Days to Update: 76

Source: Calveras County Environmental Health

Telephone: 209-754-6399 Last EDR Contact: 06/17/2020

Next Scheduled EDR Contact: 10/05/2020 Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List

Cupa facility list.

Date of Government Version: 03/02/2020 Date Data Arrived at EDR: 03/04/2020 Date Made Active in Reports: 06/01/2020

Number of Days to Update: 89

Source: Health & Human Services Telephone: 530-458-0396 Last EDR Contact: 04/06/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/14/2020 Date Data Arrived at EDR: 02/18/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 66

Source: Contra Costa Health Services Department

Telephone: 925-646-2286 Last EDR Contact: 04/16/2020

Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List

Cupa Facility list

Date of Government Version: 12/27/2019 Date Data Arrived at EDR: 01/28/2020 Date Made Active in Reports: 04/09/2020

Number of Days to Update: 72

Source: Del Norte County Environmental Health Division

Telephone: 707-465-0426 Last EDR Contact: 04/16/2020

Next Scheduled EDR Contact: 08/10/2020

Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List

CUPA facility list.

Date of Government Version: 12/31/2019 Date Data Arrived at EDR: 01/03/2020 Date Made Active in Reports: 03/05/2020

Number of Days to Update: 62

Source: El Dorado County Environmental Management Department

Telephone: 530-621-6623 Last EDR Contact: 05/06/2020

Next Scheduled EDR Contact: 08/10/2020

Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/10/2020 Date Data Arrived at EDR: 03/31/2020 Date Made Active in Reports: 06/15/2020

Number of Days to Update: 76

Source: Dept. of Community Health Telephone: 559-445-3271 Last EDR Contact: 03/31/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018 Date Data Arrived at EDR: 01/24/2018 Date Made Active in Reports: 03/14/2018

Number of Days to Update: 49

Source: Glenn County Air Pollution Control District

Telephone: 830-934-6500 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List

CUPA facility list.

Date of Government Version: 05/19/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 06/15/2020

Number of Days to Update: 26

Source: Humboldt County Environmental Health

Telephone: N/A

Last EDR Contact: 05/14/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List

Cupa facility list.

Date of Government Version: 01/21/2020 Date Data Arrived at EDR: 01/23/2020 Date Made Active in Reports: 03/30/2020

Number of Days to Update: 67

Source: San Diego Border Field Office

Telephone: 760-339-2777 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020

Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List

Cupa facility list.

Date of Government Version: 04/02/2018 Date Data Arrived at EDR: 04/03/2018 Date Made Active in Reports: 06/14/2018

Number of Days to Update: 72

Source: Inyo County Environmental Health Services

Telephone: 760-878-0238 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020

Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 01/31/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 04/15/2020

Number of Days to Update: 70

Source: Kern County Environment Health Services Department

Telephone: 661-862-8700 Last EDR Contact: 04/23/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/13/2020 Date Data Arrived at EDR: 02/14/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 70

Source: Kings County Department of Public Health

Telephone: 559-584-1411 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020

Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List

Cupa facility list

Date of Government Version: 01/15/2020 Date Data Arrived at EDR: 01/16/2020 Date Made Active in Reports: 04/01/2020

Number of Days to Update: 76

Source: Lake County Environmental Health

Telephone: 707-263-1164 Last EDR Contact: 04/13/2020

Next Scheduled EDR Contact: 07/27/2020

Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List

Cupa facility list

Date of Government Version: 01/30/2020 Date Data Arrived at EDR: 01/31/2020 Date Made Active in Reports: 04/09/2020

Number of Days to Update: 69

Source: Lassen County Environmental Health

Telephone: 530-251-8528 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020

Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former

Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009 Date Data Arrived at EDR: 03/31/2009 Date Made Active in Reports: 10/23/2009

Number of Days to Update: 206

Source: N/A Telephone: N/A

Last EDR Contact: 06/10/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/26/2020 Date Data Arrived at EDR: 03/26/2020 Date Made Active in Reports: 06/15/2020

Number of Days to Update: 81

Source: Department of Public Works

Telephone: 626-458-3517 Last EDR Contact: 03/26/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities Solid Waste Facilities in Los Angeles County.

> Date of Government Version: 01/13/2020 Date Data Arrived at EDR: 01/14/2020 Date Made Active in Reports: 03/24/2020

Number of Days to Update: 70

Source: La County Department of Public Works

Telephone: 818-458-5185 Last EDR Contact: 04/14/2020

Next Scheduled EDR Contact: 07/27/2020

Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 01/15/2019 Date Made Active in Reports: 03/07/2019

Number of Days to Update: 51

Source: Engineering & Construction Division

Telephone: 213-473-7869 Last EDR Contact: 04/02/2020

Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory

A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019 Date Data Arrived at EDR: 06/25/2019 Date Made Active in Reports: 08/22/2019

Number of Days to Update: 58

Source: Los Angeles Fire Department

Telephone: 213-978-3800 Last EDR Contact: 03/27/2020

Next Scheduled EDR Contact: 07/06/2020

Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012 Date Data Arrived at EDR: 04/17/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 42

Source: Los Angeles County Department of Public Works

Telephone: 626-458-6973 Last EDR Contact: 04/17/2020

Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019 Date Data Arrived at EDR: 06/25/2019 Date Made Active in Reports: 08/22/2019

Number of Days to Update: 58

Source: Los Angeles Fire Department

Telephone: 213-978-3800 Last EDR Contact: 03/27/2020

Next Scheduled EDR Contact: 07/06/2020

Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019 Date Data Arrived at EDR: 06/25/2019 Date Made Active in Reports: 08/22/2019

Number of Days to Update: 58

Source: Los Angeles Fire Department

Telephone: 213-978-3800 Last EDR Contact: 03/27/2020

Next Scheduled EDR Contact: 07/06/2020

Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 12/31/2019 Date Data Arrived at EDR: 01/14/2020 Date Made Active in Reports: 03/24/2020

Number of Days to Update: 70

Source: Community Health Services Telephone: 323-890-7806 Last EDR Contact: 04/14/2020

Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017 Date Data Arrived at EDR: 04/19/2017 Date Made Active in Reports: 05/10/2017

Number of Days to Update: 21

Source: City of El Segundo Fire Department

Telephone: 310-524-2236 Last EDR Contact: 04/02/2020

Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019 Date Data Arrived at EDR: 04/23/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 65

Source: City of Long Beach Fire Department Telephone: 562-570-2563

Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020

Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019 Date Data Arrived at EDR: 07/30/2019 Date Made Active in Reports: 10/02/2019

Number of Days to Update: 64

Source: City of Torrance Fire Department

Telephone: 310-618-2973 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/24/2020 Date Data Arrived at EDR: 02/25/2020 Date Made Active in Reports: 05/07/2020

Number of Days to Update: 72

Source: Madera County Environmental Health

Telephone: 559-675-7823 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites Currently permitted USTs in Marin County.

> Date of Government Version: 09/26/2018 Date Data Arrived at EDR: 10/04/2018 Date Made Active in Reports: 11/02/2018

Number of Days to Update: 29

Source: Public Works Department Waste Management

Telephone: 415-473-6647 Last EDR Contact: 03/20/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List CUPA facility list.

Date of Government Version: 11/18/2019 Date Data Arrived at EDR: 11/20/2019 Date Made Active in Reports: 01/03/2020

Number of Days to Update: 44

Source: Merced County Environmental Health

Telephone: 209-381-1094 Last EDR Contact: 05/06/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List CUPA Facility List

> Date of Government Version: 02/21/2020 Date Data Arrived at EDR: 03/05/2020 Date Made Active in Reports: 05/13/2020

Number of Days to Update: 69

Source: Mono County Health Department

Telephone: 760-932-5580 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 09/07/2020

Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 11/06/2019 Date Data Arrived at EDR: 11/07/2019 Date Made Active in Reports: 01/08/2020

Number of Days to Update: 62

Source: Monterey County Health Department

Telephone: 831-796-1297 Last EDR Contact: 04/13/2020

Next Scheduled EDR Contact: 07/13/2020

Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017 Date Data Arrived at EDR: 01/11/2017 Date Made Active in Reports: 03/02/2017

Number of Days to Update: 50

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019 Date Data Arrived at EDR: 09/09/2019 Date Made Active in Reports: 10/31/2019

Number of Days to Update: 52

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List

CUPA facility list.

Date of Government Version: 02/05/2020 Date Data Arrived at EDR: 02/06/2020 Date Made Active in Reports: 04/15/2020

Number of Days to Update: 69

Source: Community Development Agency

Telephone: 530-265-1467 Last EDR Contact: 05/06/2020

Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 01/02/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 04/15/2020

Number of Days to Update: 70

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 05/04/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 01/02/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 04/15/2020

Number of Days to Update: 70

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 05/04/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2020 Date Data Arrived at EDR: 02/04/2020 Date Made Active in Reports: 04/10/2020

Number of Days to Update: 66

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 05/05/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/02/2020 Date Data Arrived at EDR: 03/03/2020 Date Made Active in Reports: 05/13/2020

Number of Days to Update: 71

Source: Placer County Health and Human Services

Telephone: 530-745-2363 Last EDR Contact: 05/27/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List

Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019 Date Data Arrived at EDR: 04/23/2019 Date Made Active in Reports: 06/26/2019

Number of Days to Update: 64

Source: Plumas County Environmental Health

Telephone: 530-283-6355 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020

Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/10/2020 Date Data Arrived at EDR: 03/11/2020 Date Made Active in Reports: 05/20/2020

Number of Days to Update: 70

Source: Department of Environmental Health

Telephone: 951-358-5055 Last EDR Contact: 02/10/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 03/10/2020 Date Data Arrived at EDR: 03/11/2020 Date Made Active in Reports: 05/20/2020

Number of Days to Update: 70

Source: Department of Environmental Health

Telephone: 951-358-5055 Last EDR Contact: 06/10/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020 Date Data Arrived at EDR: 03/31/2020 Date Made Active in Reports: 06/15/2020

Number of Days to Update: 76

Source: Sacramento County Environmental Management

Telephone: 916-875-8406 Last EDR Contact: 03/31/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020 Date Data Arrived at EDR: 03/31/2020 Date Made Active in Reports: 06/17/2020

Number of Days to Update: 78

Source: Sacramento County Environmental Management

Telephone: 916-875-8406 Last EDR Contact: 03/31/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 02/12/2020 Date Data Arrived at EDR: 02/13/2020 Date Made Active in Reports: 04/23/2020

Number of Days to Update: 70

Source: San Benito County Environmental Health

Telephone: N/A

Last EDR Contact: 04/23/2020

Next Scheduled EDR Contact: 08/17/2020

Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/25/2020 Date Data Arrived at EDR: 02/26/2020 Date Made Active in Reports: 05/07/2020

Number of Days to Update: 71

Source: San Bernardino County Fire Department Hazardous Materials Division

Telephone: 909-387-3041 Last EDR Contact: 04/23/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/02/2020 Date Data Arrived at EDR: 03/03/2020 Date Made Active in Reports: 05/13/2020

Number of Days to Update: 71

Source: Hazardous Materials Management Division

Telephone: 619-338-2268 Last EDR Contact: 06/02/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018 Date Data Arrived at EDR: 04/24/2018 Date Made Active in Reports: 06/19/2018

Number of Days to Update: 56

Source: Department of Health Services

Telephone: 619-338-2209 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 12/26/2019 Date Data Arrived at EDR: 01/22/2020 Date Made Active in Reports: 04/01/2020

Number of Days to Update: 70

Source: Department of Environmental Health

Telephone: 858-505-6874 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020

Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010 Date Data Arrived at EDR: 06/15/2010 Date Made Active in Reports: 07/09/2010

Number of Days to Update: 24

Source: San Diego County Department of Environmental Health

Telephone: 619-338-2371 Last EDR Contact: 05/27/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008 Date Data Arrived at EDR: 09/19/2008 Date Made Active in Reports: 09/29/2008

Number of Days to Update: 10

Source: Department Of Public Health San Francisco County

Telephone: 415-252-3920 Last EDR Contact: 04/23/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 01/08/2020 Date Data Arrived at EDR: 01/09/2020 Date Made Active in Reports: 03/06/2020

Number of Days to Update: 57

Source: Department of Public Health

Telephone: 415-252-3920 Last EDR Contact: 04/23/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018 Date Data Arrived at EDR: 06/26/2018 Date Made Active in Reports: 07/11/2018

Number of Days to Update: 15

Source: Environmental Health Department

Telephone: N/A

Last EDR Contact: 06/10/2020

Next Scheduled EDR Contact: 09/28/2020 Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List

Cupa Facility List.

Date of Government Version: 02/18/2020 Date Data Arrived at EDR: 02/20/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 64

Source: San Luis Obispo County Public Health Department

Telephone: 805-781-5596 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020

Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020 Date Data Arrived at EDR: 02/20/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division Telephone: 650-363-1921

Last EDR Contact: 06/12/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019 Date Data Arrived at EDR: 03/29/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921 Last EDR Contact: 06/03/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011 Date Data Arrived at EDR: 09/09/2011 Date Made Active in Reports: 10/07/2011

Number of Days to Update: 28

Source: Santa Barbara County Public Health Department

Telephone: 805-686-8167 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List

Cupa facility list

Date of Government Version: 02/14/2020 Date Data Arrived at EDR: 02/19/2020 Date Made Active in Reports: 04/24/2020

Number of Days to Update: 65

Source: Department of Environmental Health

Telephone: 408-918-1973 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county.

Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005 Date Data Arrived at EDR: 03/30/2005 Date Made Active in Reports: 04/21/2005

Number of Days to Update: 22

Source: Santa Clara Valley Water District

Telephone: 408-265-2600 Last EDR Contact: 03/23/2009

Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014 Date Data Arrived at EDR: 03/05/2014 Date Made Active in Reports: 03/18/2014

Number of Days to Update: 13

Source: Department of Environmental Health

Telephone: 408-918-3417 Last EDR Contact: 05/15/2020

Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 04/22/2020 Date Data Arrived at EDR: 04/24/2020 Date Made Active in Reports: 05/07/2020

Number of Days to Update: 13

Source: City of San Jose Fire Department

Telephone: 408-535-7694 Last EDR Contact: 04/23/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List

CUPA facility listing.

Date of Government Version: 01/21/2017 Date Data Arrived at EDR: 02/22/2017 Date Made Active in Reports: 05/23/2017

Number of Days to Update: 90

Source: Santa Cruz County Environmental Health

Telephone: 831-464-2761 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020

Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List

Cupa Facility List.

Date of Government Version: 06/15/2017 Date Data Arrived at EDR: 06/19/2017 Date Made Active in Reports: 08/09/2017

Number of Days to Update: 51

Source: Shasta County Department of Resource Management

Telephone: 530-225-5789 Last EDR Contact: 05/07/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019 Date Data Arrived at EDR: 06/06/2019 Date Made Active in Reports: 08/13/2019

Number of Days to Update: 68

Source: Solano County Department of Environmental Management

Telephone: 707-784-6770 Last EDR Contact: 05/26/2020

Next Scheduled EDR Contact: 09/13/2020 Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/02/2020 Date Data Arrived at EDR: 03/04/2020 Date Made Active in Reports: 05/14/2020

Number of Days to Update: 71

Source: Solano County Department of Environmental Management

Telephone: 707-784-6770 Last EDR Contact: 06/15/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List

Cupa Facility list

Date of Government Version: 02/25/2020 Date Data Arrived at EDR: 02/26/2020 Date Made Active in Reports: 03/11/2020

Number of Days to Update: 14

Source: County of Sonoma Fire & Emergency Services Department

Telephone: 707-565-1174 Last EDR Contact: 06/17/2020

Next Scheduled EDR Contact: 10/05/2020 Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/02/2020 Date Data Arrived at EDR: 01/03/2020 Date Made Active in Reports: 03/05/2020

Number of Days to Update: 62

Source: Department of Health Services

Telephone: 707-565-6565 Last EDR Contact: 06/17/2020

Next Scheduled EDR Contact: 10/05/2020 Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List

Cupa facility list

Date of Government Version: 02/04/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 04/15/2020

Number of Days to Update: 70

Source: Stanislaus County Department of Ennvironmental Protection

Telephone: 209-525-6751 Last EDR Contact: 04/02/2020

Next Scheduled EDR Contact: 07/27/2020

Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 01/23/2020 Date Data Arrived at EDR: 03/03/2020 Date Made Active in Reports: 05/08/2020

Number of Days to Update: 66

Source: Sutter County Environmental Health Services

Telephone: 530-822-7500 Last EDR Contact: 05/27/2020

Next Scheduled EDR Contact: 09/14/2020 Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List

Cupa facilities

Date of Government Version: 03/16/2020 Date Data Arrived at EDR: 03/17/2020 Date Made Active in Reports: 05/26/2020

Number of Days to Update: 70

Source: Tehama County Department of Environmental Health

Telephone: 530-527-8020 Last EDR Contact: 05/14/2020

Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List

Cupa facility list

Date of Government Version: 01/21/2020 Date Data Arrived at EDR: 01/23/2020 Date Made Active in Reports: 03/30/2020

Number of Days to Update: 67

Source: Department of Toxic Substances Control

Telephone: 760-352-0381 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List Cupa program facilities

Date of Government Version: 02/10/2020 Date Data Arrived at EDR: 02/11/2020 Date Made Active in Reports: 04/20/2020

Number of Days to Update: 69

Source: Tulare County Environmental Health Services Division

Telephone: 559-624-7400 Last EDR Contact: 05/14/2020

Next Scheduled EDR Contact: 08/17/2020

Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List

Cupa facility list

Date of Government Version: 04/23/2018 Date Data Arrived at EDR: 04/25/2018 Date Made Active in Reports: 06/25/2018

Number of Days to Update: 61

Source: Divison of Environmental Health

Telephone: 209-533-5633 Last EDR Contact: 04/09/2020

Next Scheduled EDR Contact: 08/03/2020

Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2019 Date Data Arrived at EDR: 01/24/2020 Date Made Active in Reports: 04/01/2020

Number of Days to Update: 68

Source: Ventura County Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 04/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012

Number of Days to Update: 49

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 03/20/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008 Date Data Arrived at EDR: 06/24/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 37

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 04/29/2020

Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2019 Date Data Arrived at EDR: 01/24/2020 Date Made Active in Reports: 04/01/2020

Number of Days to Update: 68

Source: Ventura County Resource Management Agency

Telephone: 805-654-2813 Last EDR Contact: 04/20/2020

Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 01/27/2020 Date Data Arrived at EDR: 03/10/2020 Date Made Active in Reports: 05/20/2020

Number of Days to Update: 71

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 06/09/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report Underground storage tank sites located in Yolo county.

Date of Government Version: 03/23/2020 Date Data Arrived at EDR: 04/01/2020 Date Made Active in Reports: 06/17/2020

Number of Days to Update: 77

Source: Yolo County Department of Health

Telephone: 530-666-8646 Last EDR Contact: 03/20/2020

Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 01/27/2020 Date Data Arrived at EDR: 02/12/2020 Date Made Active in Reports: 04/23/2020

Number of Days to Update: 71

Source: Yuba County Environmental Health Department

Telephone: 530-749-7523 Last EDR Contact: 04/16/2020

Next Scheduled EDR Contact: 08/10/2020

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: 01/30/2020 Date Data Arrived at EDR: 01/30/2020 Date Made Active in Reports: 03/09/2020

Number of Days to Update: 39

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 05/12/2020

Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/16/2019

Number of Days to Update: 36

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 04/10/2020

Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD

facility.

Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 05/01/2019 Date Made Active in Reports: 06/21/2019

Number of Days to Update: 51

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 04/29/2020

Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 07/19/2019 Date Made Active in Reports: 09/10/2019

Number of Days to Update: 53

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 04/02/2020

Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Annually

RI MANIFEST: Manifest information Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019

Number of Days to Update: 69

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 05/14/2020

Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 06/19/2019 Date Made Active in Reports: 09/03/2019

Number of Days to Update: 76

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/04/2020

Next Scheduled EDR Contact: 09/21/2020 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SILVERADO CANYON ROAD SILVERADO CANYON ROAD BRIDGE SILVERADO, CA 92676

TARGET PROPERTY COORDINATES

Latitude (North): 33.746153 - 33° 44' 46.15" Longitude (West): 117.605842 - 117° 36' 21.03"

Universal Tranverse Mercator: Zone 11 UTM X (Meters): 443884.3 UTM Y (Meters): 3733981.8

Elevation: 1545 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 5636483 SANTIAGO PEAK, CA

Version Date: 2012

Northeast Map: 5636469 CORONA SOUTH, CA

Version Date: 2012

Southwest Map: 5636489 EL TORO, CA

Version Date: 2012

Northwest Map: 5636465 BLACK STAR CANYON, CA

Version Date: 2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

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).

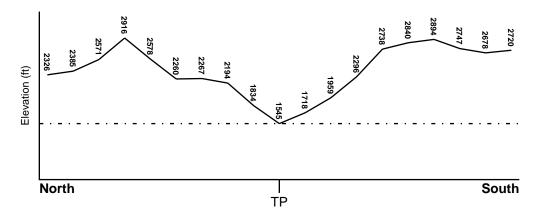
TOPOGRAPHIC INFORMATION

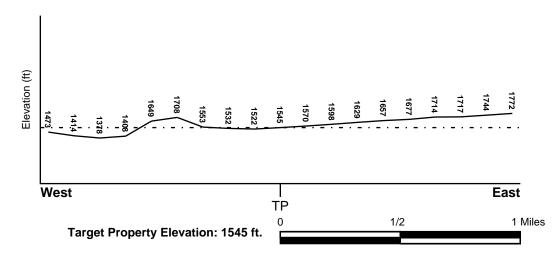
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

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

06059C0326J FEMA FIRM Flood data

Additional Panels in search area: FEMA Source Type

06059C0033E FEMA Q3 Flood data 06059C0327J FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property Data Coverage

NOT AVAILABLE YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

LOCATION GENERAL DIRECTION

MAP ID FROM TP GROUNDWATER FLOW

Not Reported

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

GEOLOGIC AGE IDENTIFICATION

Era: Mesozoic Category: Eugeosynclinal Deposits

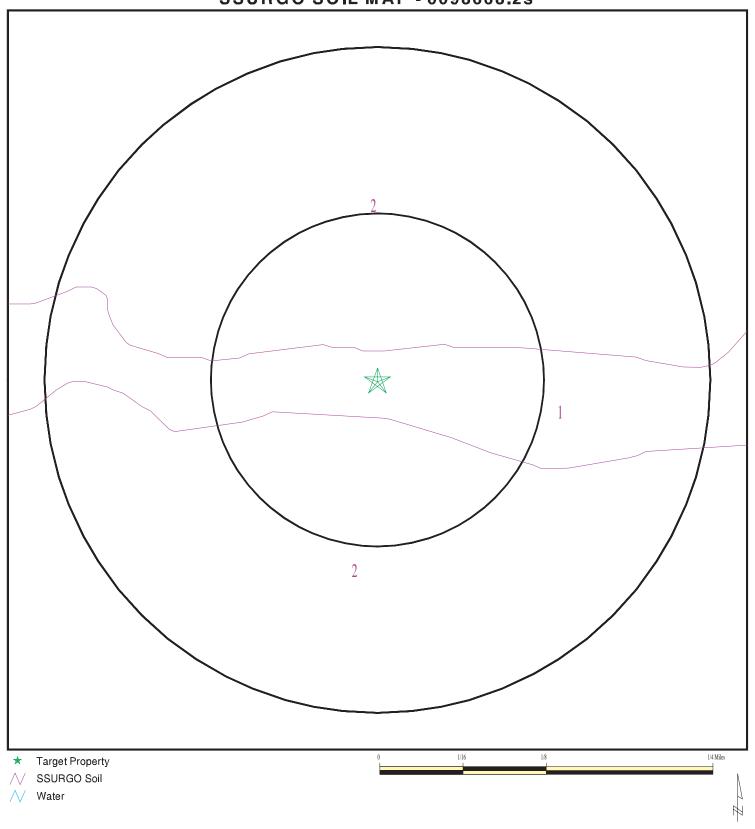
System: Lower Jurassic and Upper Triassic

Series: Lower Mesozoic

Code: IMze (decoded above as Era, System & Series)

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 - 6098668.2s



SITE NAME: Silverado Canyon Road ADDRESS: Silverado Canyon Road Bridge Silverado CA 92676 LAT/LONG: 33.746153 / 117.605842

CLIENT: WRECO
CONTACT: Joseph Mcconnell
INQUIRY#: 6098668.2s
DATE: June 19, 2020 7:04 pm

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: SOBOBA

Soil Surface Texture: very cobbly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to

excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information										
Layer	Boundary			Classification		Saturated hydraulic				
	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec				
1	0 inches	9 inches	very cobbly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel.	Max: 141 Min: 141	Max: 7.8 Min: 6.6			
2	9 inches	59 inches	very gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel.	Max: 141 Min: 141	Max: 7.8 Min: 6.6			

Soil Map ID: 2

Soil Component Name: FRIANT

Soil Surface Texture: gravelly fine sandy 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: Low

Depth to Bedrock Min: > 36 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information											
Layer	Boundary			Classification		Saturated hydraulic					
	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec					
1	0 inches	16 inches	gravelly fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 14 Min: 1.4	Max: Min:				
2	16 inches	20 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 14 Min: 1.4	Max: Min:				

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

FEDERAL USGS WELL INFORMATION

LOCATION MAP ID WELL ID FROM TP

No Wells Found

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID LOCATION FROM TP

No PWS System Found

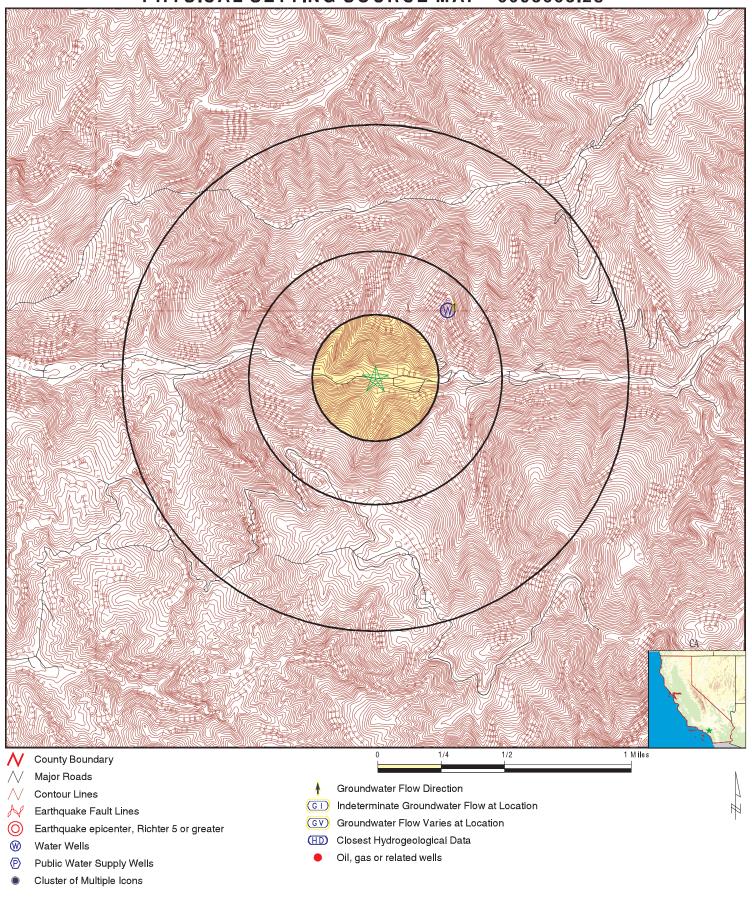
Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

LOCATION MAP ID WELL ID FROM TP

1 6076 1/4 - 1/2 Mile NE

PHYSICAL SETTING SOURCE MAP - 6098668.2s



SITE NAME: Silverado Canyon Road ADDRESS: Silverado Canyon Road Bridge Silverado CA 92676 LAT/LONG: 33.746153 / 117.605842 CLIENT: WRECO
CONTACT: Joseph Mcconnell
INQUIRY#: 6098668.2s
DATE: June 19, 2020 7:04 pm

GEOCHECK®-PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance

Elevation EDR ID Number Database ΝE **CA WELLS** 6076 1/4 - 1/2 Mile Lower Seq: 6076 Prim sta c: 05S/07W-10P01 S 3010095002 Frds no: County: 30 District: User id: TEE 80 Water type: System no: 3010095 G Source nam: **REED WELL - STANDBY** Station ty: WELL/AMBNT/MUN/INTAKE/SUPPLY Latitude: 334500.0 Longitude: 1173600.0 SU Precision: 8 Status: Comment 1: Not Reported Comment 2: Not Reported Comment 3: Not Reported Comment 4: Not Reported Not Reported Comment 5: Not Reported Comment 6: Comment 7: Not Reported

System no: 3010095 System nam: Santiago Cwd P O BOX 575 Hqname: Not Reported Address: **SILVERADO** City: State: Not Reported 92676 0575 Zip: Zip ext: 2300 Connection: 657 Pop serv:

Area serve: SILVERADO CANYON

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
		
92676	3	0

Federal EPA Radon Zone for ORANGE County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for ORANGE COUNTY, CA

Number of sites tested: 30

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor Living Area - 2nd Floor	0.763 pCi/L Not Reported	100% Not Reported	0% Not Reported	0% Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory Source: Department of Fish and Wildlife

Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

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: Dept of Conservation, Geologic Energy Management Division

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558 Radon Database for California

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.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix C EDR Historic Topo Map Report with QuadMatchTM

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Silverado Canyon Road Silverado Canyon Road Bridge Silverado, CA 92676

Inquiry Number: 6098668.4

June 19, 2020

EDR Historical Topo Map Report

with QuadMatch™



EDR Historical Topo Map Report

06/19/20

Site Name: Client Name:

Silverado Canyon Road

Silverado Canyon Road Bridge

Silverado, CA 92676

EDR Inquiry # 6098668.4

WRECO

1243 Alpine Rd Ste 108 Walnut Creek, CA 94596

Contact: Joseph Mcconnell



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by WRECO were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Cour on 1 took		oon annatee.	
P.O.#	P18067	Latitude:	33.746153 33° 44' 46" North
Project:	Silverado Canyon Road Bridge	Longitude:	-117.605842 -117° 36' 21" West
-	,	UTM Zone:	Zone 11 North
		UTM X Meters:	443885.53

Coordinates

 UTM X Meters:
 443885.53

 UTM Y Meters:
 3734175.32

Elevation: 1547.30' above sea level

Maps Provided:

Search Results.

2012 19021997

1988

1982

1973, 1978

1967, 1968

1950, 1954

1942, 1947

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Santiago Peak 2012 7.5-minute, 24000



Lake Forest 2012 7.5-minute, 24000



Corona South 2012 7.5-minute, 24000



Black Star Canyon 2012 7.5-minute, 24000

1997 Source Sheets



Corona South 1997 7.5-minute, 24000 Aerial Photo Revised 1994



Santiago Peak 1997 7.5-minute, 24000 Aerial Photo Revised 1994



Black Star Canyon 1997 7.5-minute, 24000 Aerial Photo Revised 1994



El Toro 1997 7.5-minute, 24000 Aerial Photo Revised 1994

1988 Source Sheets



Santiago Peak 1988 7.5-minute, 24000 Aerial Photo Revised 1985



Corona South 1988 7.5-minute, 24000 Aerial Photo Revised 1987



Black Star Canyon 1988 7.5-minute, 24000 Aerial Photo Revised 1987

1982 Source Sheets



Santiago Peak 1982 7.5-minute, 24000 Aerial Photo Revised 1980



Black Star Canyon 1982 7.5-minute, 24000 Aerial Photo Revised 1980



Corona South 1982 7.5-minute, 24000 Aerial Photo Revised 1980



El Toro 1982 7.5-minute, 24000 Aerial Photo Revised 1980

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1973, 1978 Source Sheets



Santiago Peak 1973 7.5-minute, 24000 Aerial Photo Revised 1973



Black Star Canyon 1973 7.5-minute, 24000 Aerial Photo Revised 1966



Corona South 1973 7.5-minute, 24000 Aerial Photo Revised 1973



El Toro 1978 7.5-minute, 24000 Aerial Photo Revised 1974

1967, 1968 Source Sheets



Corona South 1967 7.5-minute, 24000 Aerial Photo Revised 1966



Black Star Canyon 1967 7.5-minute, 24000 Aerial Photo Revised 1966



El Toro 1968 7.5-minute, 24000 Aerial Photo Revised 1967

1950, 1954 Source Sheets



El Toro 1950 7.5-minute, 24000 Aerial Photo Revised 1946



Black Star Canyon 1950 7.5-minute, 24000 Aerial Photo Revised 1946

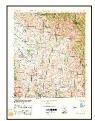


Santiago Peak 1954 7.5-minute, 24000 Aerial Photo Revised 1949



Corona South 1954 7.5-minute, 24000 Aerial Photo Revised 1952

1942, 1947 Source Sheets



SANTIAGO PEAK 1942 15-minute, 50000



CORONA 1947 15-minute, 50000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1902 Source Sheets



Corona 1902 30-minute, 125000

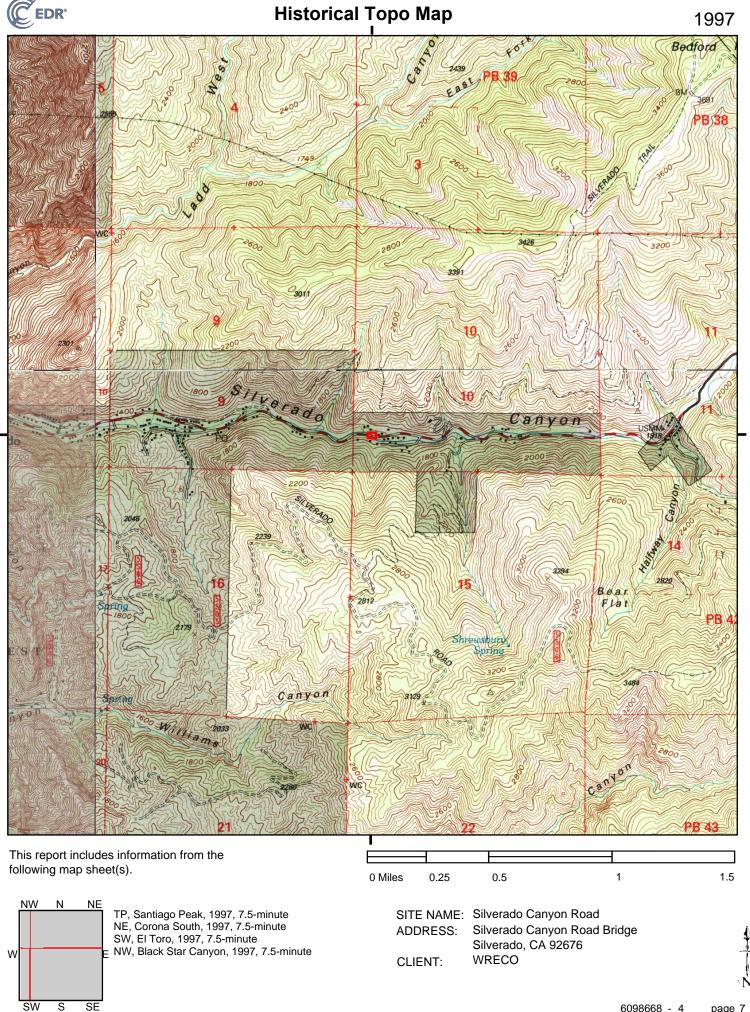
NW, Black Star Canyon, 2012, 7.5-minute

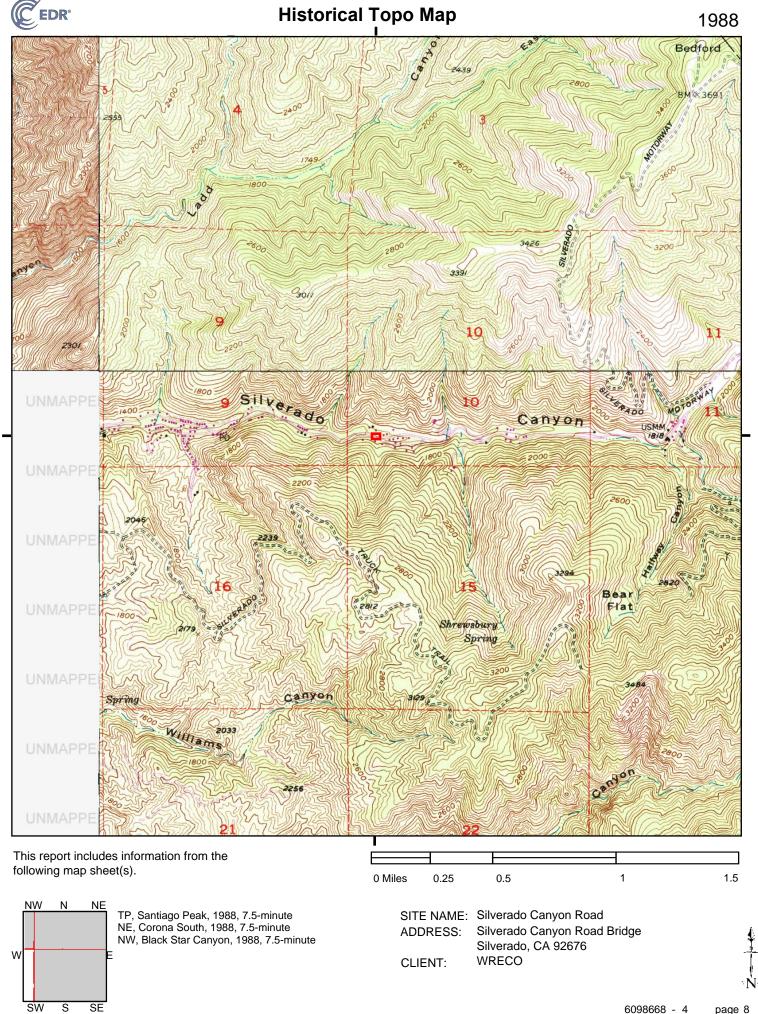
W

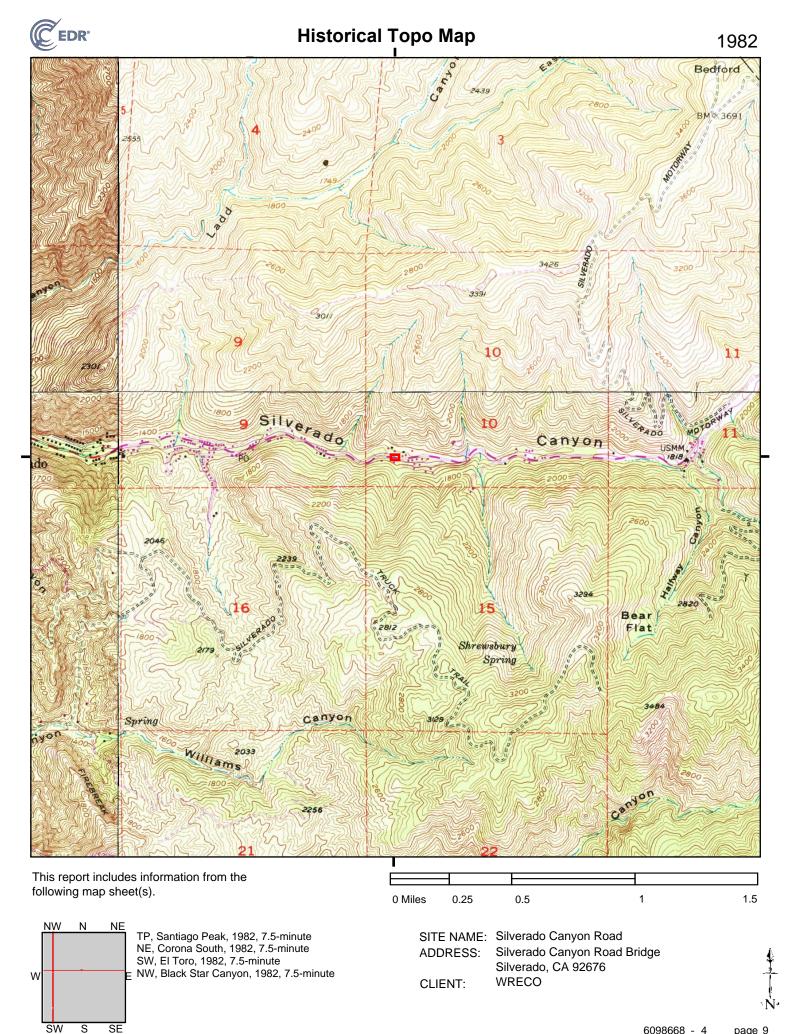
SE

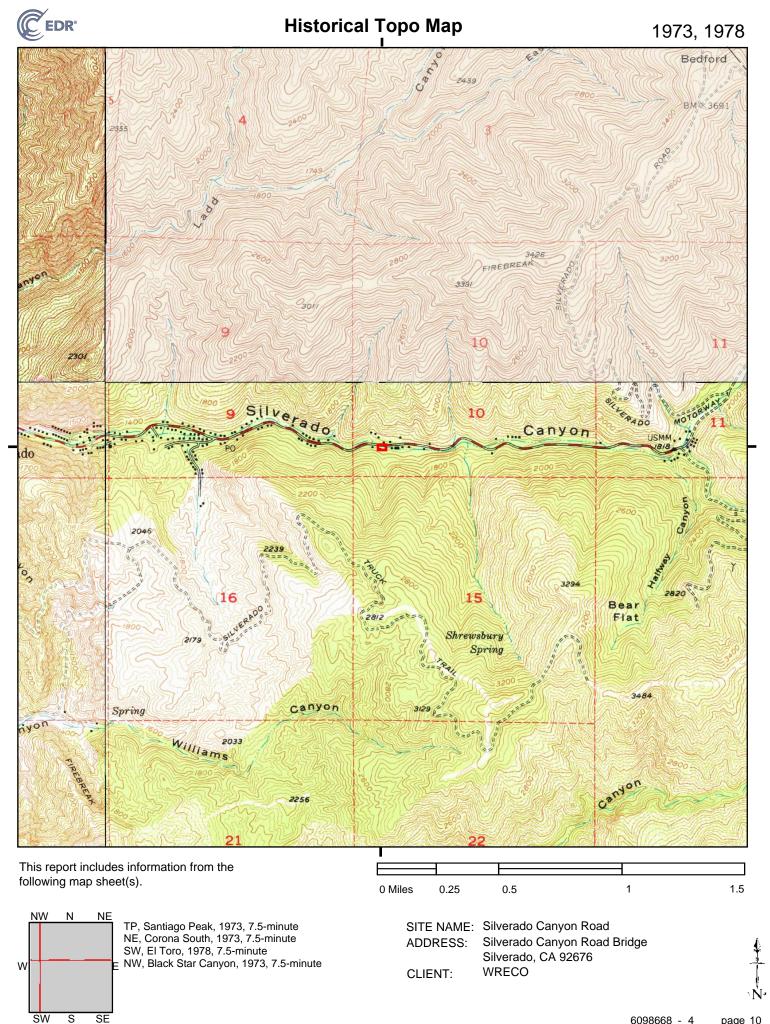
WRECO

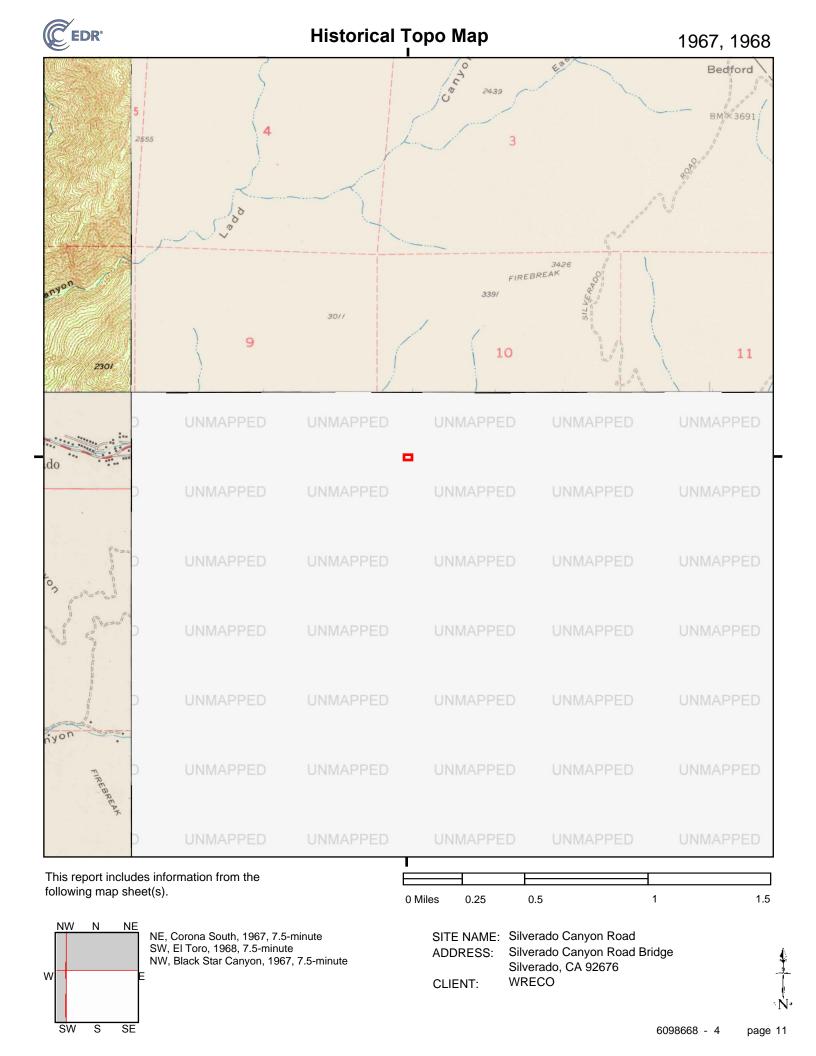
CLIENT:

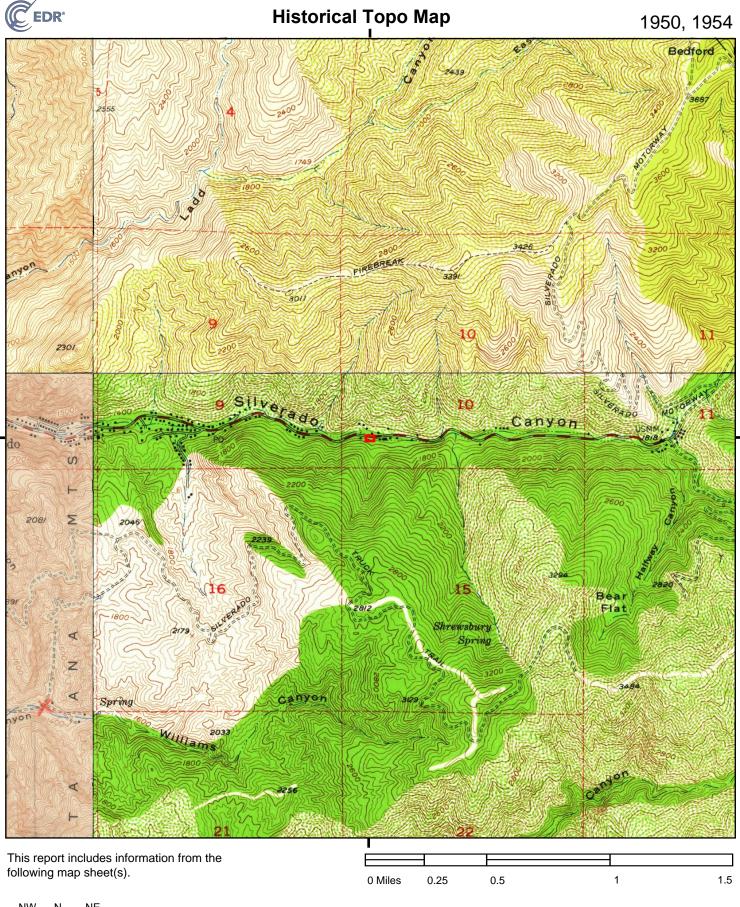








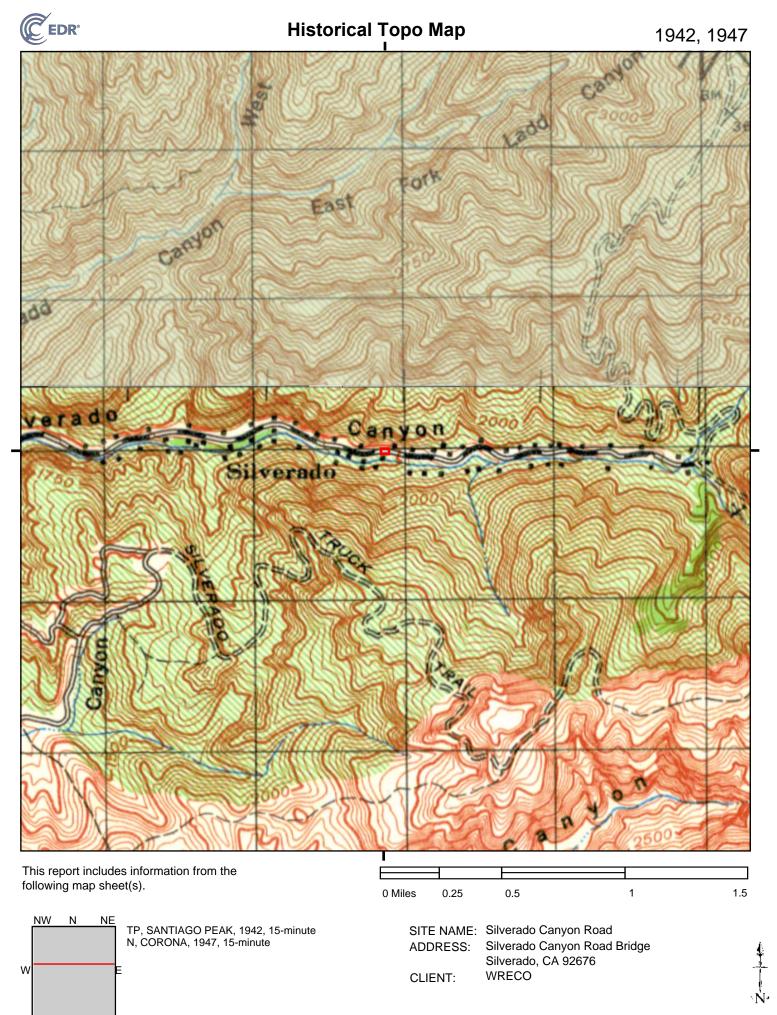




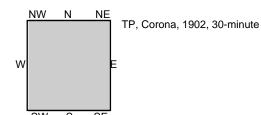
NW N NE
TP, Santiago Peak, 1954, 7.5-minute
NE, Corona South, 1954, 7.5-minute
SW, El Toro, 1950, 7.5-minute
NW, Black Star Canyon, 1950, 7.5-minute
SITE NAME: Silverado Canyon Road
ADDRESS: Silverado Canyon Road Bridge
Silverado, CA 92676
CLIENT: WRECO

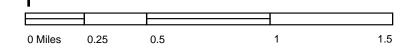
60986

W



This report includes information from the following map sheet(s).





SITE NAME: Silverado Canyon Road ADDRESS: Silverado Canyon Road Bridge

Silverado, CA 92676

CLIENT: WRECO



Appendix D The EDR Aerial Photo Decade Package

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Silverado Canyon Road

Silverado Canyon Road Bridge Silverado, CA 92676

Inquiry Number: 6098668.8

June 19, 2020

The EDR Aerial Photo Decade Package



EDR Aerial Photo Decade Package

06/19/20

Site Name: Client Name:

Silverado Canyon Road

Silverado Canyon Road Bridge Silverado, CA 92676

EDR Inquiry # 6098668.8

WRECO

1243 Alpine Rd Ste 108 Walnut Creek, CA 94596 Contact: Joseph Mcconnell



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:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
1994	1"=500'	Acquisition Date: June 01, 1994	USGS/DOQQ
1989	1"=500'	Flight Date: August 03, 1989	USDA
1985	1"=500'	Flight Date: September 13, 1985	USDA
1974	1"=500'	Flight Date: November 06, 1974	USGS
1967	1"=500'	Flight Date: May 07, 1967	USGS
1953	1"=500'	Flight Date: September 23, 1953	USDA
1948	1"=500'	Flight Date: July 10, 1948	USGS
1938	1"=500'	Flight Date: June 21, 1938	USDA

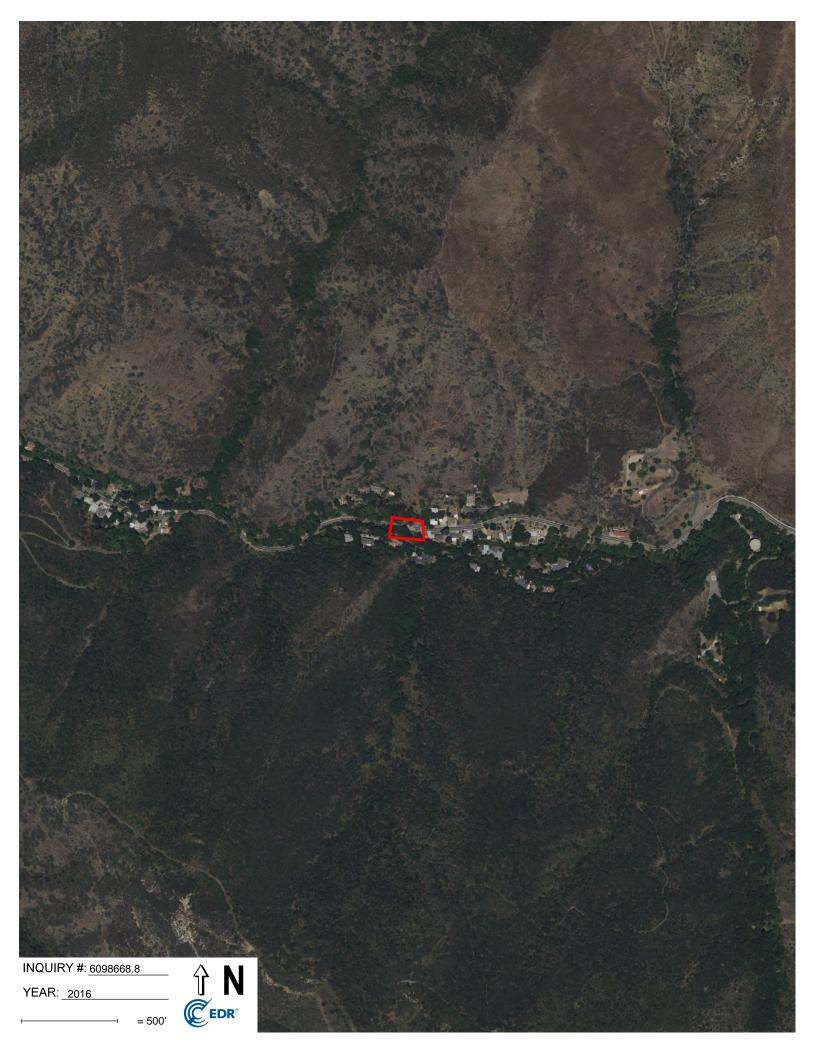
When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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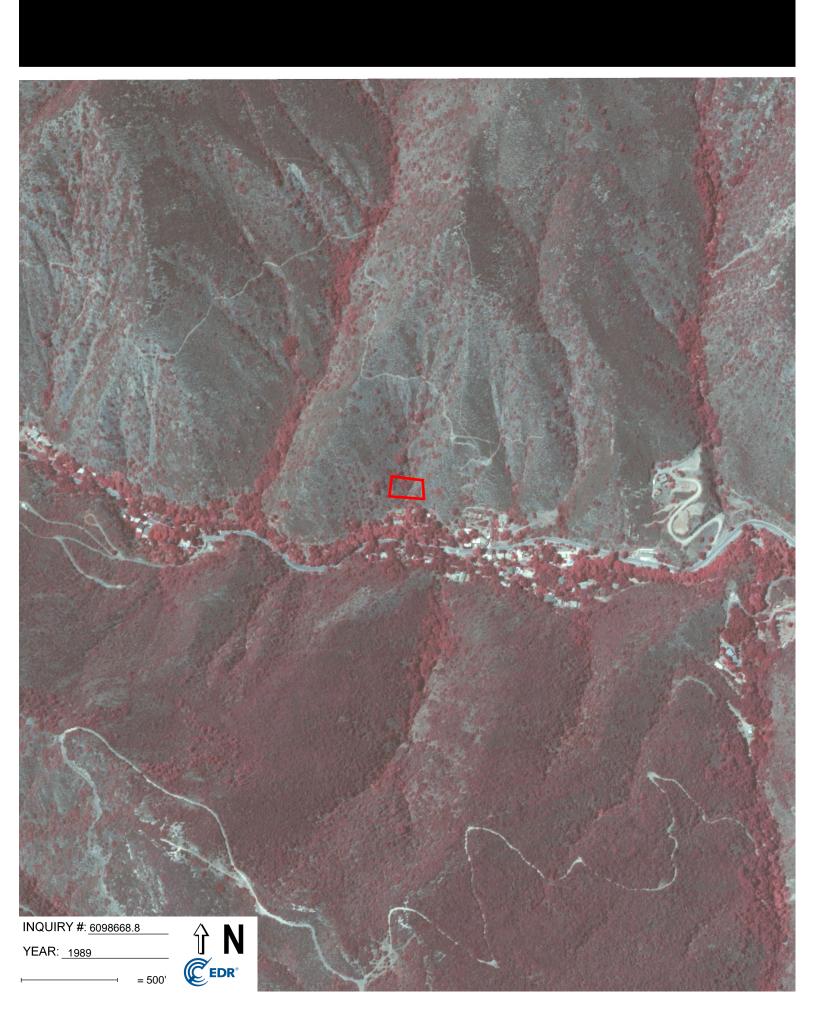
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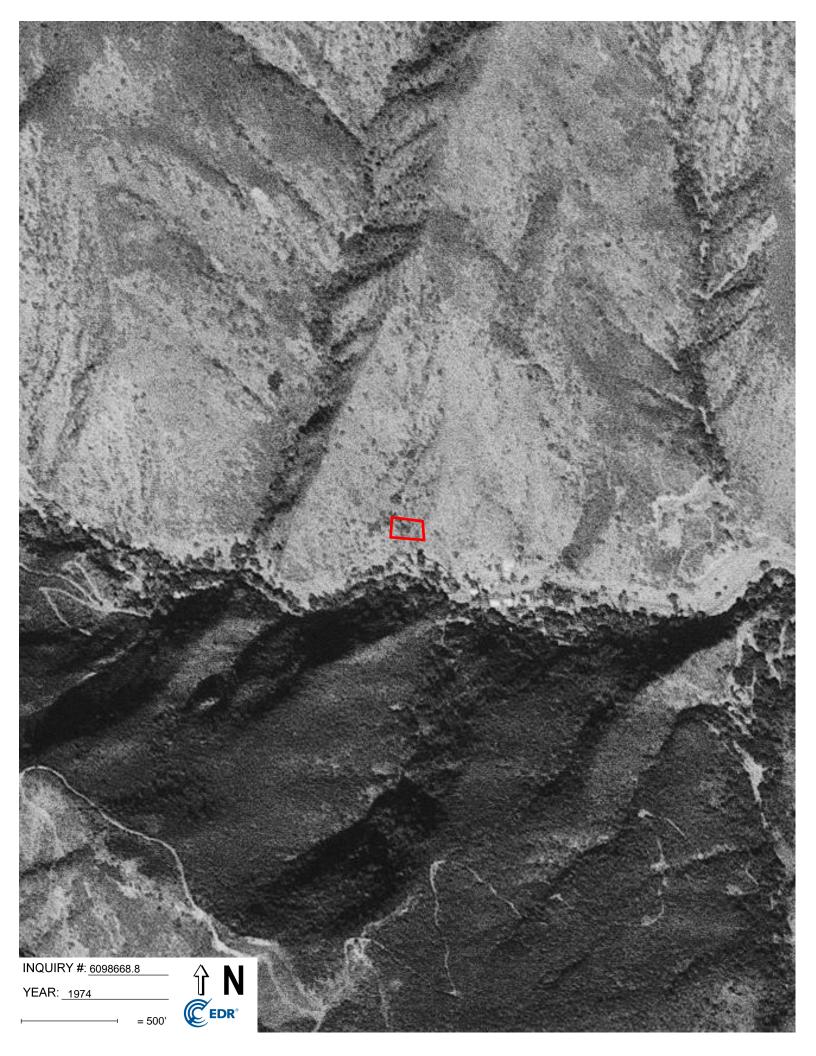


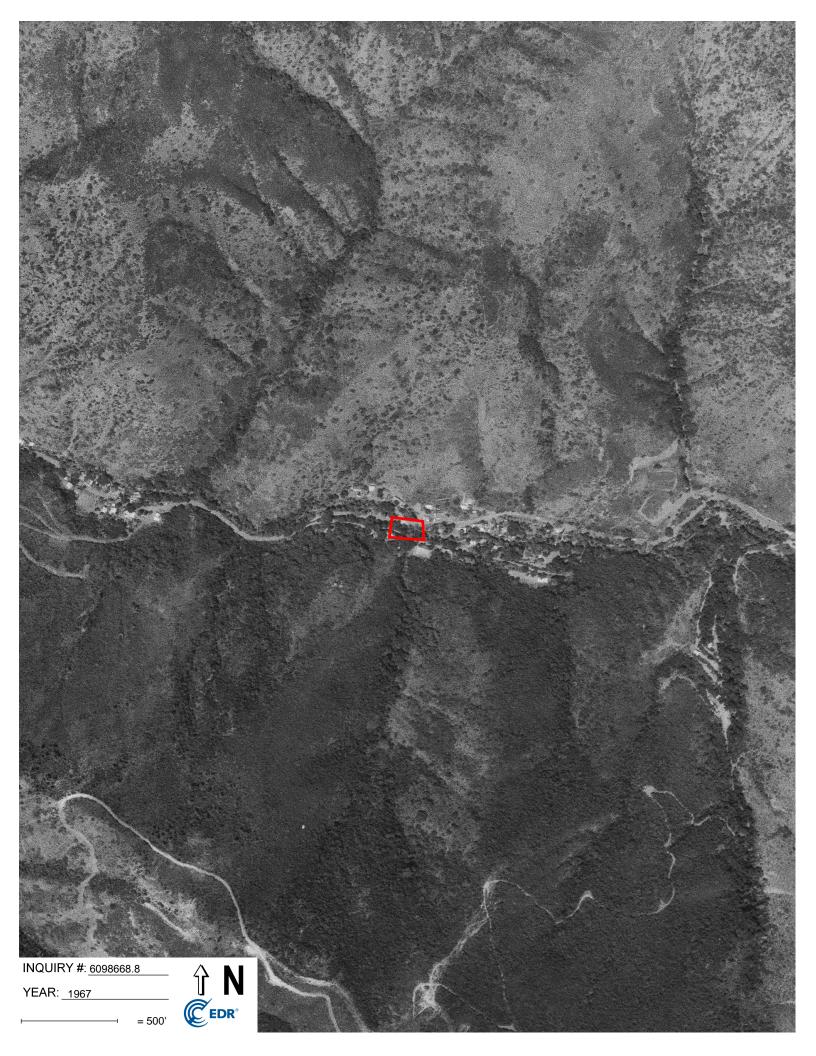




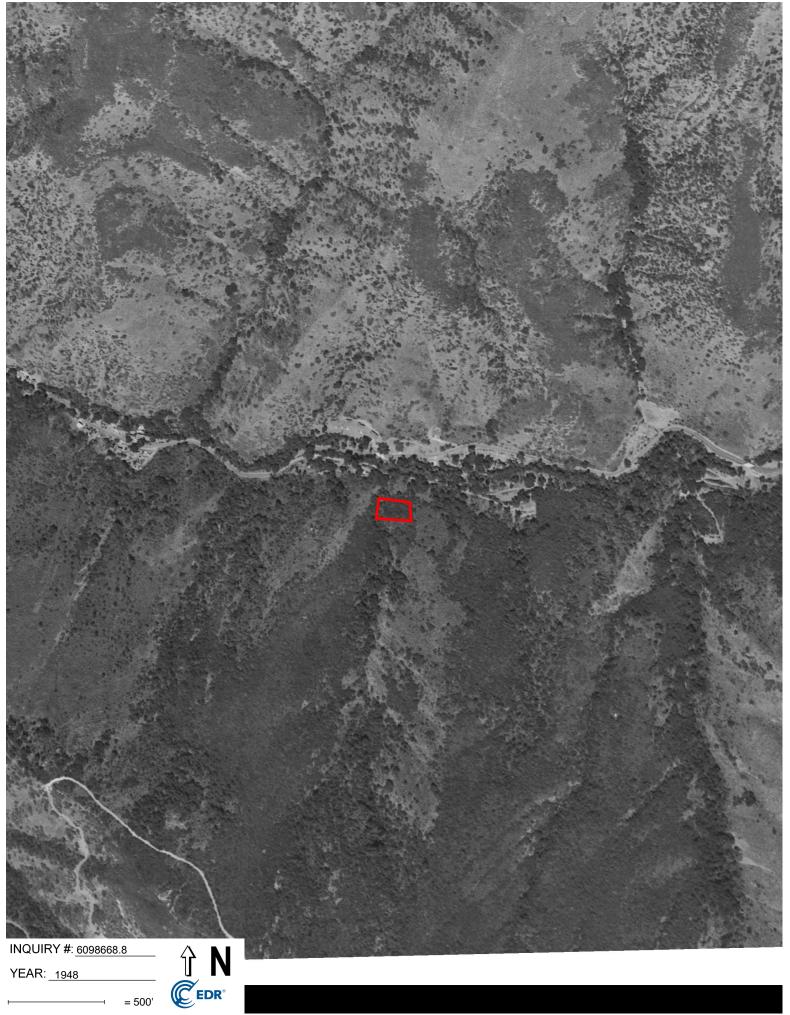












= 500'



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Appendix E Certified Sanborn® Map Report

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Silverado Canyon Road Silverado Canyon Road Bridge Silverado, CA 92676

Inquiry Number: 6098668.3

June 19, 2020

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report

06/19/20

Site Name: Client Name:

Silverado Canyon Road WRECO

Silverado Canyon Road Bridge 1243 Alpine Rd Ste 108

Silverado, CA 92676 Walnut Creek, CA 94596

EDR Inquiry # 6098668.3 Contact: Joseph Mcconnell



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by WRECO 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 # 2EF4-43CE-8B44

PO # P18067

Project Silverado Canyon Road Bridge

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 #: 2EF4-43CE-8B44

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

✓ Library of Congress

✓ University Publications of America

▼ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Appendix F The EDR-City Directory Image Report

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Silverado Canyon Road

Silverado Canyon Road Bridge Silverado, CA 92676

Inquiry Number: 6098668.5

June 25, 2020

The EDR-City Directory Image Report



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Executive Summary

Findings

City Directory Images

Thank you for your business.Please contact EDR at 1-800-352-0050 with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	Target Street	Cross Street	<u>Source</u>
2014	$\overline{\checkmark}$	$\overline{\checkmark}$	EDR Digital Archive
2010	$\overline{\checkmark}$	$\overline{\checkmark}$	EDR Digital Archive
2005	$\overline{\checkmark}$	$\overline{\checkmark}$	EDR Digital Archive
2000	$\overline{\checkmark}$	$\overline{\checkmark}$	EDR Digital Archive
1995	$\overline{\checkmark}$	$\overline{\checkmark}$	EDR Digital Archive
1992	$\overline{\checkmark}$	$\overline{\checkmark}$	EDR Digital Archive
1987	$\overline{\checkmark}$	$\overline{\checkmark}$	Haines Criss-Cross Directory
1982	$\overline{\checkmark}$	$\overline{\checkmark}$	Haines Criss-Cross Directory
1976	$\overline{\checkmark}$	$\overline{\checkmark}$	Haines Criss-Cross Directory
1972	$\overline{\checkmark}$		Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Silverado Canyon Road Bridge Silverado, CA 92676

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
SILVERAD	O CANYON RD	

2	014	pg A2	EDR Digital Archive
2	2010	pg A4	EDR Digital Archive
2	2005	pg A6	EDR Digital Archive
2	2000	pg A8	EDR Digital Archive
1	995	pg A11	EDR Digital Archive
1	992	pg A13	EDR Digital Archive
1	987	pg A15	Haines Criss-Cross Directory
1	987	pg A16	Haines Criss-Cross Directory
1	987	pg A17	Haines Criss-Cross Directory
1	982	pg A19	Haines Criss-Cross Directory
1	982	pg A20	Haines Criss-Cross Directory
1	976	pg A22	Haines Criss-Cross Directory
1	976	pg A23	Haines Criss-Cross Directory
1	972	pg A25	Haines Criss-Cross Directory
1	972	pg A26	Haines Criss-Cross Directory

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FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
OAK LN		
2014	pg. A1	EDR Digital Archive
2010	pg. A3	EDR Digital Archive
2005	pg. A5	EDR Digital Archive
2000	pg. A7	EDR Digital Archive
1995	pg. A10	EDR Digital Archive
1992	pg. A12	EDR Digital Archive
1987	pg. A14	Haines Criss-Cross Directory
1982	pg. A18	Haines Criss-Cross Directory
1976	pg. A21	Haines Criss-Cross Directory
1972	pg. A24	Haines Criss-Cross Directory

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Target Street Cross Street Source
- Source EDR Digital Archive

OAK LN 2014

30012 GREAVES, JOHN 30032 BICKLEY, CHRISTOPHER D 30171 DAVIS, JUDITH M

Target Street Cross Street Source

→ EDR Digital Archive

0000	CALVARY CHAREL
8002	CALVARY CHAPEL
27246	GODFIRNON, PATRICIA L
27271	JUDD, DANA A
27311	HADERLIE, JAN E
27331	PETERSON, STEVE J
27335	BROWN, RANDY P
27411	BROWN, LORRAINE C
07450	SIL MOD PROPANE INC
27452	- ,
27456	HROSSOWYC, DONALD R
27462	ANAHEIM SEWER CONSTRUCTION
07.47.4	SILBERMANN, MICHAEL E
27471	PALOMINO, HENRY J
27641	HUNT, ROBERT
00400	SILVERADO COMMUNITY CENTER
28192	COUNTY OF ORANGE
	SILVERADO CANYON MARKET
28231	GRIFFIN, ROD
28251	OCCUPANT UNKNOWN,
	UNITED STATES GOVERNMENT
28261	GRANDPAS GARDEN
28271	FITZGERALD, STEVE R
	MYERS, MARY E
	ROSENBERG, BRENDA
28281	RENAUD, REG P
28346	VINCENT, MARK L
28662	PRESTON, SARAH
28681	KATHY, SENGIR
28691	WIDERMAN, DAVID
28821	FARR, JEAN C
29176	BRODHAGEN, JENNIFER P
29191	OSBORN, SIDNEY R
29302	MASON, KEN
29312	NAGELIN, GEORGE E
29351	RUZIKA, THOMAS M
29412	MANSFIELD, GERALD C
29423	HORTON, COURTNEY A
29521	WILLIAMS, JULIE M
29541	MADDY, LAURA C
29631	KANE, DOUGLAS P
29791	MCCORKLE, HOWARD Y
30031	REYNOLDS, ROBERT J
30192	BROWN, MICHAEL J
30242	LIMA, MICHAEL L
30611	KEY, SHANE
30942	APRATI, NORMAN K
31301	MAJOR, BRENT
31326	LOUI, ANNIE M

Target Street Cross Street Source
- ← EDR Digital Archive

30012	GREAVES, JOHN

Target Street Cross Street Source

→ EDR Digital Archive

27172	US FORESTRY DEPT
27246	JUDE, DANA
27271	CARBONDALE RANCH
	CURFMAN, TODD R
27311	HADERLIE, JAN E
27331	PETERSON, STEVE J
27335	BROWN, RANDY P
27352	WHITE LFNT EQUIPMENT RENTAL
27411	BROWN, LORRAINE C
27452	VINCENT, DAVID W
27456	GOTTLIEB, DONALD R
27462	EDNEY TREE SVC
	EDNEY, WILLIAM L
27471	PALOMINO, HENRY J
27472	GIBSON, SCOTT E
27641	HUNT, ROBERT
	SILVERADO COMMUNITY CTR
29206	WORTMAN, RON R

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Target Street Cross Street Source

→ EDR Digital Archive

27246 27271	ARAGON, AL BISHOP PERFORMANCE HORSES CARBONDALE RANCH
	JUDD, DANA A
27311	HADERLIE, JAN E
27331	OCCUPANT UNKNOWN.
27335	,
27411	BROWN, LORRAINE C
27452	•
27456	GOTTLIEB, DONALD R
27462	EDNEY & SON
	LAWRENCES TREE SERVICE
	OCCUPANT UNKNOWN,
27471	FRANKS, FRED
27472	GIBSON, SCOTT E
28271	ISAAC, MIKE
	MYERS, MARY E
	WELCH, L J

Target Street Cross Street Source
- Source EDR Digital Archive

30072	WALZ, WILLIAM		
30102	VALENTINE, BEN		
30191	CLAGG, CASS		
30196	RUTH, CAROL		
30236	VINCENT, TERRY R		

Target Street Cross Street Source

→ EDR Digital Archive

27311	HADERLIE, JAN
27335	DIMAGGIO, JOE
27411	BROWN, DANNY E
27641	MADORE, STEVE P
28271	HENDRY, DAVON B
	MYERS, M
	WHITAKER, RANDELL A
28281	RENAUD, R P
28306	SCHAEFFER, RICHARD
28336	CURIEL, TONY
28662	AGUILAR, C
28672	GERACI, B
	LASCOE, C
28762	SZALKOWSKI, F J
28821	FARR, JAMES E
28822	GOODRICH, ALBERT
28851	COSTA, CLARICE
28881	HANSEN, MICHAEL
29002	MORRISON, MALCOLM
29036	AYERS, F
29101	AVISS, KAREN
29145	BROSIUS, GUY H
29171	WENTWORTH, LLOYD
29200	BEL, BRUNO M
29235	MORRIS, BOB E
29238	SISTO, DANIEL
29281	DEERING, SUSAN C
29282	TOKER, STEPHEN
29291	KELLEY, JAMES
29312	NAGELIN, GEORGE E
29341	JONES, DAVID A
29351	RUZIKA, THOMAS M
29421	MINDERBINDER, MILO
29432	STOUGHTON, SAM
29442	OTO, J L
29462	VALENTINE, RICHARD W
29481	SMEATHAM, GEORGE
29521	WILLIAMS, JULIE
29552	GRUPE, WALT F
29734	TORINO, FRANK
29741	WINDES, STEPHEN J
29762	CARMEN, CARL N
29801	WARNER, BRUCE
30031	REYNOLDS, ROBERT J
30131	ORSINE, JAMES A
30141	FRY, JOHN S
30162	SCHWARTZENBERGE, GARY
30242	LIMA, MICHAEL
30622	HIGGINS, WILLIAM
30942	APRATI, NORMAN

Target Street Cross Street Source

→ EDR Digital Archive

SILVERADO CANYON RD 2000 (Cont'd)

	SILVENADO CANTON NO	2000	(Cont a)
31301 31306 31312 31319 31338	MAJOR, BRENT COX, SUSAN J MARTIN, JOSH COLGAN, MICHAEL E WENDORF, HERB S		

Target Street Cross Street Source
- Source EDR Digital Archive

		OAK LN	1995	
30142 30171	WALZ, WILLIAM VALENTINE, BEN WHEELER, CRAIG DAVIS, JUDI COKER, J E			

Target Street Cross Street Source

→ EDR Digital Archive

8002	SILVERADO COMMUNITY CHURCH
27172	MARTIN, GORDON
	MCCLEMENTS, MATT
27246	ARAGON, AL
	THAL, T E
27271	CARBONDALE RANCH
	JUDD, DANA
27311	HADERLIE, JAN
	JAN HADERLIE PHOTOGRAPHY
	SUMMERSONG KENNELS
27335	BROWN, RANDY
27352	SOUTH COAST GRADING INC
	WEISZ, FRED
27411	BROWN, DANNY E
27456	DEBOER, E
27472	COLLAR, WILLIAM
	KING, DALE E
27641	SILVERADO COMMUNITY CTR
28192	CANYON MARKET
28222	Q TORTAS RESTAURANT
28231	CANYON REALTY
28251	US POST OFFICE
28272	PALI CAFE
29442	SHADYBROOK COUNTRY STORE

Target Street Cross Street Source
- Source EDR Digital Archive

30012	TILMA, TERRY
30072	WALZ, WILLIAM
30102	VALENTINE, BEN
30142	WHEELER CRAIG ARCH
	WHEELER, CRAIG B
30171	DAVIS, JUDI
30191	BONAS, MAURY
30236	COKER, J E

<u>Target Street</u> <u>Cross Street</u> <u>Source</u>

✓ - EDR Digital Archive

SILVERADO CANYON RD 1992

27172 GORDON, GLYNN MARTIN, GORDON MCCLEMENTS, MATT 27271 CARBONDALE RANCH **EQUINE INDUSTRIES** HORSEPOWER 27311 HADERLIE, JAN SUMMERSONG KENNELS 27335 BROWN, RANDY 27352 SOUTH CST GRDNG INC WEISZ, FRED 27411 BROWN, DANNY E 27471 PENHALL, JOSEPH 27472 KING, DALE E

OAK	LN 92676 SIL	VERADO
30012	*SPACE COWBOYS	649-2150 4
	TILMA TERRY	649-2669 8
30102	ZYLSTRA BETTY	649-2310 5
30140	XXXX	00
30142	WHEELER CRAIG B	649-2067 9
30171	XXXX	00
30191	BONAS MAURY	649-2838
	BONAS SUSIE	649-2838 4
30236	LUGO ROBERT A	649-2288 3
NO #	MOYER TED L	649-2423 +7
*	1 BUS 9 RES	1 NEW

<u>Source</u>

Haines Criss-Cross Directory

	76 SILVERADO	
27172	BOURBEAU WM E	649-2762
	HERNANDEZ EDW A	649-2579
	WHITE SAMUEL A	649-2028
27189	XXXX	00
27246	SHIRK DONALD A	649-2451
	THALTE	649-2032
27271	DAY RICHARD	649-2935
	PORTERS EQUIP SERV	649-2840
27311	HADERLIE JAN	849-2511
	SJAN HADERLIE PHOTO	649-2861
27331		
	BROWN DANNY E	649-2565
27362	SOUTH CST GRONG INC	649-2133
	WEISZ FRED	649-2938
	WEISZ PATRICIA	649 2938
	XXXX	00
	XXXX	00
	XXXX	00
	*SIEVERADO RORTNAPK	649 2477

SILVERADO CANYON RD 1987

SILVE	ERADO CNYN RD	92676 CONT
28002 28162	XXXX *BRISA	00 649-2771+
	HICKEY CLAUDIA HICKEY MICHAEL	649-2771+ 649-2315 649-2315
28166 28176	XXXX	00
28182	XXXX	00
28192	XXXX *CANYON MARKET *ORG CO LBRY *SILVERADO INN *VICTORS SILVERADO *CANYON REALTY *CUTTERS COTTAGE WAUGH CLINT *US POSTL SY GREENSHIELDS BRETT STORCK FRANK *PAUL CAFF	649-2082 649-2216 649-2222
28222	*SILVERADO INN	649-2222 649-2222
28231	*CANYON REALTY	649-2632 649-2519+
28231	WAUGH CLINT	649-2985 649-2033
28231 28251 28271	*US POSTL SV GREENSHIELDS BRETT	649-2927 +
28272	STORCK FRANK *PALI CAFE	649-2013 + 649-2622
28281	*RIDLS REPAIR	649-2367
28282	*RIDLS REPAIR PETERSEN GREG LONGTIN JERRY E STOTTS CHAS V CURIEL MARION CURIEL TONY	649-2672 649-2663
28302 28306 28336	STOTTS CHAS V	649-2623
		649-2623
28342 28346 28372	XXXX	00
28372	SELEINE RICHARD SELEINE SHARON	649-2014 649-2014
28412	XXXX	00
28552 28562	XXXX XXXX XXXX	00
28576 28652	CARPENTER CHERYL	00 649-2812
28662 28672	XXXX KITER TERRY R	00 649-2149
28681	XXXX	00
28681 28691 28702	XXXX FLEMING JOHN WARREN ROBERT C	649-2406
28762 28792	SZALKOWSKI F J PEDERSEN JEFFREY L	649-2910 5 649-2374 +
28801	XXXX HOBSON R C	00 649-2044
28821 28822	XXXX	00
28851 28852	XXXX	00
28881		649-2843 649-2145 +1
28901 28931	TAYLOR HEATHER	00
28931 29002	XXXX MORRISON MALCOLM	00 649-2620
29021	SCHWARTZENBERGER W	649-2441 +1 649-2120
-2061	SCHWARTZENBERGER W ATTORE DONALD *PERFECTION INC SHAFQAT LOIS A AYERS F	649-2120
29036	AYERS F	649-2120 4 649-0101 5
29101	ARMET BUB	649-2080
29102	ARMET ELLEN QUICK SONG! BROWN K E BROSIUS GUY H BURTON TRACY WENTWORTH LLOYD WENTWORTH SHARON GRAHAM DENNIS GRAHAM LINDA IVERS C	649-2356 8 649-2859 +1 649-2775
29131 29145	BROSIUS GUY H	649-2775
29171	BURTON TRACY WENTWORTH LLOYD	649-2338 6 649-2461
29176	WENTWORTH SHARON	649-2461 649-2863
	GRAHAM LINDA	649-2863
29182 29191	ROBERTSON HARRY	649-2863 649-2856 649-2736
29200 29206	LAKEY I P XXXX	649-2721 00
29222	BELL GEO A OSBORN SIDNEY R	649-2330 6
29232 29235	MORRIS BOB E	649-2746 649-2233
29238	MORRIS BOB E PARSLEY MELISSA FRANCISCO IAN	649-2746 649-2233 649-2233 649-2375
29241	XXXX	00
29251 29252	XXXX RILEY JERRY M	00 649-2509 +7
29261 29271 29282	XXXX	00
29282 29291	ROMINEK JON P BARNETT KEVIN	649-2473 6 649-2276 6
29302	XXXX	00
29312 29322 29341	NAGELIN GEO E SANFORD M	649-2212 649-2776
29341 29351	SANFORD M GARRISON FRANCIS RUZIKA DONNA M RUZIKA THOS M	649-2776 649-2342 +7 649-2922
29412	RUZIKA THOS M	649-2922
29421	XXXX MINDERBINDER MILO	00 649-2966 0
29422 29423 29432	GORDON CAROL A YOUNG LOUIS J	649-2729 649-2788
29432	YOUNG LOUIS J STOUGHTON CHRIS STOUGHTON SAM	649-2267 649-2267
29441	XXXX	
29442 29461	XXXX CLARK DEL XXXX *WATSON INVSTMT DVLP WATSON RICHARD R XXXX THOMSEN DAVE THOMSEN MARJI	649-9021 +7 00
29462	*WATSON INVSTMT DVLP	649-2302 5 649-2153 5
29475	XXXX	00
29482	THOMSEN MARJI	649-2476 2 649-2476
29492 29501	CAMPBELL G A	00 649-2304 +7
29502	XXXX	00 649-2796
29521		649-2796
29541 29552	FREY JANET	00 649-2280 5
29562	XXXX SMITH RETTY ANN	00
29586	XXXX FREY JANET XXXX SMITH BETTY ANN DAHMS CHARLES FAIRLEY TERRY W JACKSON DALE W XXXX CHERRY JOE J	649-2575 +7
29641	JACKSON DALE W	649-2058 8 649-2261
29722 29731 29734	XXXX CHERRY JOE J	00 649-2235
29734	XXXX	
29741	CREWE ROBERT D	00
29761	XXXX XXXX SMITH IRA	649-2677
29772	DWITH DEVINE	00 649-2677 649-2677 00 649-2880 +7
29781	MANUEL BRUCE B WARNER BRUCE	649-2880 +7
29791		
29801	GILDEA BRUCE B WARNER BRUCE	649-2691
30031	REYNOLDS ROBERT J	649-2676 2 649-2564 1
30051	RICHARDS GRAHAM	649-2564 1 649-2834 1
30081	ROY MARLENE	649-2712
30111	ROY MICHAEL XXXX	649-2712
30116	ANTRIM JAS W	649-2660 5
30141	FRY JOHN S DR	649-2909
30142	YARUSS J	649-2244
30163	GILDEA BRUCE B WARNER BRUCE B WARNER BRUCE WARNER BRUCE REYNOLDS ROBERT J ROY MICHAEL XXXX LANGLEY GEORGE REY JOHN S DR XXXX YARUSS J YARUSS J YARUSS J YARUSS R ROY ANNETTE	649-2244 6
30182	YARUSS R ROY ANNETTE XXXX JONES RONALD E ENGEL IRV BAKONIS TONY XXXX	00
30192	JONES RONALD E ENGEL IRV	649-2873 1 649-2551
30531	BAKONIS TONY XXXX	649-2644 6
20602	DMILLIDS ALAN	649-2357 6
20004	LARRYED HAROLD A	649.2793
30641	BARBER R C XXXX XXXX	649-2204 2 00
30661	XXXX	00
30811	WOODHOUSE JOHN 2D	649-2463 6
31301	WOODHOUSE JOHN 2D MAJOR BRENT	649-2611 1

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<u>Target Street</u> <u>Cross Street</u>

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SILVE	RADO CNYN RD	92676 CONT
31309	XXXX	00
31311	DELUGACH DAVID	649-2139 6
	REID KATHRYN	649-2139 6
31312	MARTIN KATHY	649-2823
	MARTIN LARRY M	649-2823
31313	XXXX	00
31315	XXXX	00
31317	CHANDLER ROBT B	649-2937 5
31319	COLGAN MICHAEL E	649-2903 +7
31321	ENDER CARL	649-2439
	ENDER LISA	649-2439 6
31325	MAY STEVE	649-2018 +7
31338	WENDORF JACK B	649-2798
31342	XXXX	00
31343	XXXX	00
31346	XXXX	00
NO #	*SANTIAGO CO WATER	649-2630
NO #	*SILVERADO CMNTY CH	649-2636 6
1	18 BUS 175 RES	23 NEW

Haines Criss-Cross Directory

OAK	LN 926	376 SIL	VERADO)
30012	TILMA TERI	RY	649-2669	8
30102	FALIN JAS	Ţ	649-2774	8
30140	MOYER TEL) L	649-2423	1
30142	WHEELER (CRAIG B	649-2067	9
30171	BUTZEN RO	GER J	649-2783	0
S00,50	CANYON G	RAPHICS	649-2960	1
30236	LUGO ROB	ERT A	649-2748	1
*	1 BUS	6 RES	0 NEW	

	ERADO CANYO	N RD
	6 SILVERADO	
27189	READ MICHAEL R	649-2483
27246 27271	THAL TE BEAULIEU THOS L	649-2032 649-2054
	DAY RICHARD	649-2935 649-2861
27224	HADERLIE JAN HADERLIE JAN PEMBER CARLETON R	649-2511 649-2567
27331 27335 27352	BROWN DANNY E	649-2565 +2
27445	MAI RICK XXXX	649-2671 (00
27458 27462 27472	MYRES JIM XXXX	649-2897 E
27472 27641	COLLAR WM CLOSE KENNETH SILVERADO RCRTNAPK	649-2477 649-2982
28002	SILVERADO RERTNAPK	649-2214 649-2636 649-2545
28162	SILVERADO CMNTY CH COLLAR BILL ARCO SV PORTERS EQUIPMNT SV	649-2545
28166		649-284D (00
28192	CANYON MARKET ORANGE CD LBRY SIL SILVERADO INN	849-2082 649-2218
28222	VICTORS	649-2222
28231	TIME REAL EST 6LS	649-2218 649-2222 649-2222 649-2777 649-2985
28231% 28251 28271	WAUGH CLINT US PSTL SILVERADO APARTMENTS	849-2033
EUZ. 1	DAVIS BONNIE HALL LINDA M HANCOX ROBT J HARNESS DAVID	649-2427 +2 649-2603
	HANCOX ROBT J	649-2231 +2
	LUNO ALAN K	649-2597 + : 649-2592 + :
28271 28272	PALI CAFE	649-2622
28281 28282	CANYON AUTO LIVERY PETERSEN GREGORY LONGTIN JERRY E STOTTS CHAS V	649-227D
28302 28306	LONGTIN JERRY E	649-2663 649-2089
28336	CURIEL TONY	649-2623 +1
28342 28346	XXXX CANYON REALTY	00 649-2632
	CANYON REALTY WARREN ROBT C SELEINE RICHARD ULLITICH HAROLD AIKEN L A	649-2632 1 649-2406 +2 649-2014 1 649-2593 649-2942 +2
28372 28412 28552	ULLRICH HAROLD	649-2593 649-2942 +1
28562 28576		649-2530
28622	XXXX	00
28641 28652	ANDERSON J	00 649-2853 +: 549-2944
28662 28672	ANDERSON J TENDYKE BERNICE K XXXX	00
28681	JAMES WILL R	649-2539
28762	BLANSETT T BROADHURST T	649-2907 +; 649-2062
28821	HO8SON R C EBRIGHTCLARK ELAINE	649-2044
28851	XXXX	649-2558 +:
28852 28881	MCGRATH MIKE ROBINSON RUSSELL G CANYON CHRSTN CNTR	00 649-2045 649-2843
28901 28931	BUDIN ROBERT J	649-2650 +1 649-2972 +1
		649-2620
29101	MOHAISON MALCOLM DOWNEY GEO R ARMET ROBT L JR ROHM ROGER A BROSIUS GUY H WENTWORTH LLOYD GRAHAM DENNIS IVERS C	649-2080 649-2916 649-2775 649-2461 +
29131 29145 29171 29176	BROSIUS GUY H	649-2775
29176	GRAHAM DENNIS	649-2863
29182	ROBERTSON HARRY	649-2736 +1
29191 29200 29206 29222 29232 29235 29238	LAKEY I P TOEPHER JOHN R BRODEK RALPH OSBORN SIDNEY R	649-2721 649-2095 +:
29222	BRODEK RALPH OSBORN SIDNEY B	649-2095 +: 649-2575 +: 649-2746
29235	SHIRK DONALD A	649-2451
29241	JACKSON DAVID P	649-2417
29251 29261	XXXX HUGHES MEGAN	00 649-2871 +:
29271 29282 29291	HENRY LINDA JACOBS HUGH G XXXX	649-2871 +: 649-2013 : 649-2573 :
29291	XXXX BROSIUS C	
29312	BROSIUS C WEBBER GEORGE NAGELIN GEO E SANFORD B A TRACY ROBT C RUZIKA THOS M CARLON RON MINDERBINDER MILO WOODPHOLISE JOHN 2D	649-2293 649-2293 649-2212 649-2776
29322 29341	SANFORD B A	649-2776
20351	RUZIKA THOS M	649-2922
29412 29421 29422 29423 29432	MINDERBINDER MILO	649-2758 649-2966 649-2463
29422	WOODHOUSE JOHN 2D YOUNG LOUIS J STOUGHTON CHRIS	649-2463 649-2788
29432 29442	STOUGHTON CHRIS SCOTT L D SHADYBRK CNTRY STR	649-2030 5
29461	SHADYBRK CNTRY STR ASHCRAFT J	649-2776 649-2460 649-2922 649-2758 649-2966 649-2463 649-2788 649-2030 649-2030 649-2816 649-2855 649-2932
29475	VVVV	00
29475 29482 29492	THOMSEN DAVE HAMILTON CURT CAMPBELL G A JANSS JEREMY M GROUARD FRANKLIN	649-2476 + 649-2962 + 649-2202
29502	JANSS JEREMY M	649-2954
29521 29541	GROUARD FRANKLIN MADDY T L SCHLAPPY ALAN	649-2796 649-2241
29541 29552 29562		649-2902
29582	SMITH BETTY ANN	649-2607
29631	FAIRLEY TERRY W JACKSON DALE W	00 649-2058 649-2261
29722		UU
29731 29734 29741	CHERRY JOE J	649-2235 00
29742	BRADBURY WM	649-2747 + 649-2686 +
29761 29762	CAMPBELL THOMAS H	649-2224
29772	GONZZLES SUSAN A	649-2677 649-2931 +
29781	MSAON ROBT GANATTA PETE L MCCORKLE HOWARD MD	649-2677 649-2677 649-2931 + 649-2931 + 649-2784 + 649-2218 649-2076
29791	MCCORKLE HOWARD MD	649-2218 649-2076
29801	GILDEA ALFRED R WARNER BRUCE REYNOLDS K R REYNOLDS ROBERT J	649-2691
30031	REYNOLDS ROBERT J	649-2691 649-2542 649-2676 +
30051	REYNOLDS ROBT J RICHARDS GRAHAM RICHARDS MARY	649-2834
30061	RICHARDS MARY XXXX	649-2834
30081	DICHARDS MADY	649-2740 649-2959 +
30115	CLARK ROBYN G MEDWEDEFF DONALD BERGERON RICHARD L	649-2254
30116 30131 30141		00
30141	FRY JOHN S DR ANTRIM JAS W ANTRIM PATRICK J	649-2909
30144	ANTRIM PATRICK J BELL CHARLES	649-2660 649-2660 649-2656 +
30.44	BELL CHAS G	649-2011 649-2858 + 649-2525
	MICHS CHAIG	640 2525
30162	HUY ANNETTE	043-2323
30162 30182 30192	SPLINTER MICHAEL R JONES RONALD E	649-2621
30162 30182 30192 30242 30502 30531	ANI RIM PATRICK J BELL CHAS G BELL CHAS G MYERS CRAIG ROY ANNETTE SPLINTER MICHAEL R JONES RONALD E SLABACK LECIL J ENCEL IRV BAKONIS TONY COX THOMAS P	649-2621

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SILVER	ADG CANYON RO	92676 CONT
306D2	XXXX	00
30622	LAFEVER HAROLD A	649-2793
30641	BARBER R C	649-2204
3D651	BUCKELL DAVIO	649-2764
3D661	XXXX	00
30737	MEDINA DAVID J	649-2905
31300	XXXX	00
313D1	MAJOR BRENT	649-2611
31309	XXXX	00
31311	XXXX	00
31312	MATTIA MICHAEL A	649-2207
31313	XXXX	00
31315	MCFADDEN DON	649-2838
31317	XXXX	00
31319	RAMSAY LINDA S	649-2833 -
31321	HOWARD RALPH W	649-2084
31325	XXXX	00
31338	WENDORF JACK B	649-2798
31342	CLARKE DOROTHY B	649-2584
31343	GURMIN WM J	649-2437
31346	HOLEY DAVID GEO	649-2026
NO#	MACPHERSON SANDY D	R 649-2546
NO#	SANTIAGO CO WATER	649-2630
*	16 8US 155 RES	35 NEW

Target Street

Cross Street

<u>Source</u>

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OAK LN 1976

OAK LN 92676 SILVERADO

30140 MOYER TEO L 649-2423 30142 WHEELER CRAIG 8 649-2067 2 30171 HUFF RICHARO A 649-2502 3 30236 PARKER SCOTT E 649-2084 3 * 0 BUS 4 RES 0 NEW <u>Target Street</u> <u>Cross Street</u> <u>Source</u>

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SILVERADO CNYN RD 92676 SLVRADO
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8002*SILVERAOD CMNTY CH 649-2636
27189*SILVERAOO RFLE RNGE532-9011 2
27246 THAL T E 649-2032 2
27271 8EAULIEU THOS L 649-2054
27311 ALLCOTT LOUISA 649-2772+6
*FAIROANE KENNELS 649-2772
27331 PEMBER CARLETON R 649-2567
27335 ANTLE L E 649-2416 5 27445 GUIOOTTI OAN 649-2484 27456 MAYER HENRY J 649-2096
27445 GU100TTI OAN 649-2484 27456 MAYER HENRY J 649-2096
27456 MAYER HENRY J 849-2079
27472 COLLAR WM 649-2477
27641*SILVERADD RCRTNEPK 649-2214 4
28162*CDLLAR BILL ARCO SV649-2545 2
28182 XXXX 00
28192+CANYON MARKET 649-2082 5
+DRANGE CD LIBRARY 649-2216
28222*SILVERAOO INN REST 649-2222+6
*VICTORS SILVROO INN649-2222 4
28231 CAMPBELL TOM 649-2918+6 *TIME REAL EST SALES649-2777 5
28251*US POST OFFICE 649-2033
28271 LOCKHART SANORA A 649-2972+6
28272*PAL1 CAFE 649-2622
28281*FRANKS EXXON SV STA532-9943 5
28282 PETERSEN GREGDRY 649-2672 2
28282 PETERSEN GREGDRY 649-2672 2 28302 LONGTIN JERRY E 649-2663 28306 STDTTS CHAS V 649-2237+6 28336 HANNIS 8 G 649-2609 5
28306 STDTTS CHAS V 649-2237+6
28336 HANNIS 8 G 649-2609 5
28342 XXXX 00 28346*CANYON REALTY 649-2632+6
28346*CANYON REALTY 649-2632+6 *LOBDELL REALTY 649-2632
*MODJESKA CANYN RLTY649-2632 5
*SILVERADO CNYN RLTY649-2632 5
*TRABUCO CANYON RLTY649-2632 5
28372 MAY8ERRY SIDNEY F 649-2055
28412 ULLRICH HAROLO 649-2593
28562 XXXX 00
28576 HUMKE STEVEN 649-2071+6
28622 SHEELY LLOYO G 649-2259
28641 XXXX 00 28652 KIRSCHER E P 649-2917+6
28672 WORTHINGTON R 649-2661+6
28681 JAMES WILL R 649-2539 4
28691 SEEFELOT WAYNE 649-2250 4
288D2 XXXX 00
28820 XXXX 00
28821 H08SDN R C 649-2044
28822 BUCKELL DAVID 649-2686+6
28851 XXXX 00
28852 MCGRATH MIKE 649-2045 5 28881 ROBINSON RUSSELL G 649-2843+6
29131 GAWLIK LARRY C 649-2800+6
LYNN KEITH 649-2471
291315KLINE JULES M 649-2285 5
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Target Street

Cross Street

Source

Haines Criss-Cross Directory

OAK LN 1972

OAK LN 92676 SILVERADO

30140 MOYER TED L 649-2423 30142 WHEELER CRAIG 8 649-2067 2 30171 HUFF RICHARD A 649-2502+3 30236 PARKER SCOTT E 649-2084+3 O BUS 4 RES

2 NEW

6098668.5 Page: A24

SILVERADO CANYON RD 1972

CILVEDADO	CNYN RD 92676	SIVPADO
SILVERADO	CITTI ND 32070	3L*NADO
	RAGO CHNTY CH	
	TICH RALPH O RAOO RFLE RNGE	
27246 THAL	T E	649-2032 2
27271 8EAUL 27311 ALLCO		649-2054 649-2772
		649-2772
27331 PEM8E	R CARLETON R	649-2567
27335 ANTLE 27445 GUIOC		649-2416 649-2484
27456 MAYER	HENRY J	649-2096
27462 EONEY 27472 COLLA	LAWRENCE	649-2079 649-2477
	RAOD PARK DIST	
	R BILL ARCO SV	
28182 XXXX 28192*ORANG	E CO LIBRARY	00 649-2216
28222*VICTO		649-2222
28231 XXXX 28251*US PC		00 649-2033
28271 XXXX		00
28272*PAL1 28281 XXXX		649-2622 00
28282 PETER	SEN GREGORY	649-2672 2
28302 LONGT 28306 STOTT	IN JERRY E	649-2663 649-2089
28336 KERNE		649-2458+3
28342 XXXX		00
28346*L080E		649-263 2 649-2055
28412 ULLRI	CH HAROLO	649-2593
28562 XXXX 28622 SHEEL		00 649-2259
28641 XXXX		00
28652 LOY H		649-2208
28662 TOMLI 28691 XXXX		649-2548+3 00
	REAL ESTATE SL	
28820 XXXX 28821 HOBSC		00 649-2 0 44
28851 ANOER	SON SUSAN	649-2667
29002 AYLST 29072 XXXX		649- 2 501 2
29131 LYNN	KEITH	649-2471
291315ALLAN 29145 XXXX		649-2762+3 00
		649-2280+3
		649-2588+3
29182 ALORI 29200 LAKEY		649-2643 2
29222 SAMMO	N TERRENCE	649-2768 2
29232 XXXX 29241 ANOER		00 649-2716 2
29252 STANH	000 PAUL H	649-2711
		649-2070 649-2589+3
		649-2212
29322 ROZEM		649-2091
	ROST C ERS A E	649-2460 649-2700
29421 COUEY	CLAUGE	649-2576
		649-2576 649-2788
		649-2412 2
		649-2263
29492 KIR8Y	S JEFFREY W	649-2223 649-2217+3
29501 XXXX		00
		649-2796 649-2241+3
29562 8ARRE	TT FORO W	649-2621
	BETTY ANN E BARRY	649-2607 649-25 2 6
29641 EVANS	LARRY G	649-2685
29722 XXXX 29731 CHERR		00
29731 CHERK		649-2 2 35 00
29761 SHOOK	RICHARO G	649-2712
29762 SMITH SMITH		649-2677 649-2677
29791 MCCOR	KLE HOWARO MO	649-2218+3
	A ALFRED R MARY	649-2076 649-2062+3
30061 A8801	T THOS R	649-2549+3
30081 XXXX		00
	OEFF DONALO YRE ROST W	649-2254+3 649-2072
30142 ANTRI	M JAS W	649-2660
ANTRI	M MARGO	649-2660

<u>Target Street</u> <u>Cross Street</u>

Source

Haines Criss-Cross Directory

SILVERADO CANYON RD 1972

1 SILVERADD CANYON RD 926	76 CONT
30144 JOHNSTON ROBT LEE	649-2286 2
30162 ROY ANNETTE	649-2525 2
30182 XXXX	00
30192 SHOFFEITT OAVIO	649-2743
30242 SLABACK LECIL J	649-2203
30502 XXXX	00
30602 WILLIAMS CLINTON L	649-2444+3
30622 LAFEVER HAROLO A	649-2793
30651 WOOD VICKI J	649-2681+3
31300 TAYLOR 80881E	649-2436+3
31309 XXXX	00
31311 BARNARO ROY M	649-2661
31312 PIGMON IRMA M	649-2769 2
31313 BORDEN CHARLENE	649-2664
BORDEN HERBERT J	649-2664
31319 BAKER KARL	649-2020 2
31321 PIGMON WH O	649-2789 2
31325 KINSMAN JOHN S CAPT	649-2572+3
TYLER ROSS A	649-2419 2
31326 SMITH L KENT	649-2025 2
31338 WENOORF JACK 8	649-2798 2
31342 CLARKE OOROTHY 8	
31343 GURMIN WM J	649-2437 2
NO # MACPHERSON SANOY OR	649-2546
NO #*SANTIAGO CHTY WATER	649-2630
NO ##US AGRI FOREST SV	649-2645 2
* 14 8US 101 RES	16 NEW

Appendix G Site Reconnaissance Photos, July 16, 2020

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Silverado Canyon Road Bridge (No. 55C0177) Replacement Project

ISA Site Visit – July 16, 2020



Photo 1. West of Silverado Canyon Road Bridge (No. 55C0177) (Bridge), facing west; residential and woodland properties adjoin the Project site. Yellow and white paint with botts dots and utility poles with power lines line the roadway. A fire hydrant is present on the north side of the road.



Photo 2. East of the Bridge, facing west; residential properties adjoin the Project site. Yellow and white paint with botts dots line the roadway.



Photo 3. There are utility poles with power lines and an outcropping and slope on the southwest side of the Bridge.



Photo 4. Concrete curbs with metal guard rails and painted wooded posts extend along the south side of the Bridge. Concrete curbs with painted wooden posts and painted wooden guardrails extend along the north side of the Bridge. Yellow and white striping, and botts dots, extend along the north and south sides of the Bridge.



Photo 5. Centerline of Bridge looking northwest (left) and southeast (right) over Silverado Creek.



 ${\it Photo}~6.~{\it South~railing~looking~west;}~there~is~a~survey~mark~at~the~southeast~corner.$



Photo 7. East of the bridge, there is a retaining wall located on the southeast side of the crosswalk.



Photo 8. At the southeast corner of the Bridge, there is separation between the buttress and retaining wall (left) and an outcropping along the west side of Silverado Creek (right).



Photo 9. South of the Bridge, looking east; land subsidence occurs at the southeast retaining wall.



Photo 10. South of the Bridge, looking east (left) and north (right); there is a rusted metal pipe that extends along the south side of the Bridge.



Photo 11. Brookside Terrace extends along the northeast bank of the Bridge.



Photo 12. Propane tanks were observed at all adjoining residential properties.

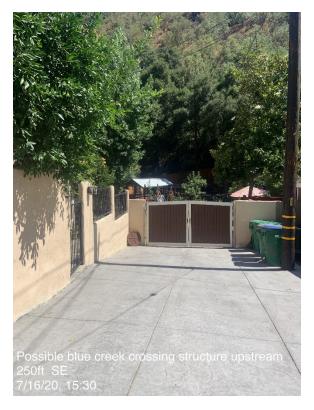


Photo 13. There is possibly a blue creek crossing structure location southeast of the Bridge.



Photo 14. There is a water supply tank located on one of the parcels adjacent to the Project site.



Photo 15. There is a portable structure along the southeast bank along the east side of the Bridge.

Appendix H Caltrans Checklist

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Initial Site Assessment (ISA) Checklist

Project Information		
District County Route Post M	file EA	
Description STINERADO CA	nyon Rs B	BETAGE
Is the project on the HW Study Minimal-Risk Pro	ojects List?	
Project Manager		
Project Engineer		
Project Screening Attach the project location map to this checklist t	to show location of all kn	ow and/or notential HW sites
identified.		ow und of potential ITW sites
1. Project Features: New R/W?	ation? YES Railroad Ir	nvolvement? <u>Lo</u>
Structure demolition/modification? 15 S 2. Project Setting Silverado Cyr. Rural or Urban Rural C	Rd Bridge	OVER CREEK
Rural or Urban RUEAL	٥	
Current land uses hocal Rel for v	rehicles, delive	ry, bikes, pedestions
(industrial, light indus	try, commercial, agricultu	aral, residential, etcetera)
Check federal, State, and local environmenta see if any known hazardous waste site is in show its location on the attached map and at information for the proposed project.	or near the project area.	If a known site is identified,
4. Conduct Field Inspection. Date 67-Ver HW sites.	Ouse the attached map	to locate potential or known
STORAGE STRUCTURES / PIPELINES: Underground tanks Not Observed Sumps Not Observed Drums Not Observed Transformers on Poles Other Le" of Hoo Line and	Ponds Not Obs Basins Not Ob Landfill Not O	bserved of Bridge
@ Possible SEPTIC/LE		
Project Development Procedures Manual	07/01/1999M	DD-5

DD-5

Initial Site Assessment (ISA) Checklist

(continued)

	CONTAMINATION: (spills, leaks, illegal dumping, etcetera)
	Surface staining minor - on Oil sheen Not Observed Pavement Odors Not Observed Vegetation damage Not Observed
	Odors Not Observed Vegetation damage Not Observed
	Other Occasional surface hitter
	HAZARDOUS MATERIALS: (asbestos, lead, etcetera)
	Buildings HONE INVOLVED Spray-on fireproofing Not Observed
	Pipe wrap Not Observed Friable tile Not Observed
	Acoustical plaster Not Observed Serpentine UNKNOWN
	Paint ROAD SYRIPING Other
5.	Additional record search, as necessary, of subsequent land uses that could have resulted in a hazardous waste site. Use the attached map to show the location of potential hazardous waste sites.
6.	Other comments and/or observations: SEE THOTOS
<u>IS</u>	A Determination
Doe	es the project have potential hazardous waste involvement? YES If there is known or potential
	ardous waste involvement, is additional ISA work needed before task orders can be prepared for the estigation? If "YES," explain; then give an estimate of additional time required:
4	TORMWATER BUNDEF RUNS TO CREEK
	orief memorandum should be prepared to transmit the ISA conclusions to the Project Manager and ject Engineer.
IS	A Conducted by W.S. Cocoo Date 07 16 2020
DD	-6 O7/01/1999M Project Development Procedures Manual

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Source: ESRI Maps Online; Dokken Engineering 4/29/2020; Created By: jfogerty

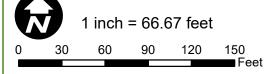


Figure 3 Area of Potential Effects

BRLO-5955(096) Silverado Canyon Road Bridge Replacement Project Silverado, Orange County, California



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INITIAL SITE RECONNAISSANCE CHECKLIST

Project Number	Date of Site Visit 07-16-2020					
Project Name STATERADO CANDAL	County ORANGE					
Project Name STWERARO CANTON Weather/Limiting Conditions 80° CLEAR CALM						
Project Description (roadway, bridge, intersection, etc.)	Field Inspector					
	Land use activities that have the potential to generate hazardous wastes,					
including on-site chemical or fuel storage facilities, either on or adjac	ent to the Project site. Check if any of the following is observed:					
Gas stations	Chemical manufacture, formulation, or processing.					
Repair and maintenance of motor vehicles (automobiles, aircraft, trucks, construction equipment, RVs, etc.).	Chemical & petroleum product storage facilities (above- and under-ground tanks and flammable storage rooms)					
Photographic processing or printing.	Analytical laboratory operations.					
Provision of home, industrial, or commercial pest control.	Dry-cleaning and laundry services.					
Warehouse operations.	Cosmetic manufacturing or processing.					
Home, garden, pool, or agricultural supply manufacturing.	Textile mfg. (including fabric dyeing and finishing).					
Manufacture, refinishing, or stripping of furniture or wood products.	Manufacture, formulation, or processing of pesticides or agricultural products or chemicals.					
Chemical treatment of lawns, gardens, yards, or other landscape and tree services.	Metal finishing, refinishing, and etching (auto body, printed circuit board manufacturing, jewelry fabrication).					
Building and repair of boats.	Production and repair of shoes.					
Paint formulation and mixing.	Metal galvanizing.					
Drum, barrel, and tank reconditioning.	Battery manufacturing, rebuilding, or recycling.					
Solvent recycling.	Scrap metal and junk yard operations.					
Pressure treating or preserving of wood products.	Landfills.					
Facilities that receive bulk deliveries of raw or processed materials	Schools, auditoriums and other facilities with large heating requirements.					
Nursery and greenhouse operations.	Waste or spent production incineration.					
Recycling facilities.	Foundries.					
Railroad corridors.						
Part 2. Specific physical features that may be indicators of poter	ntial contamination. Check if any of the following is observed:					
Unnatural, sunken/depressed or raised areas.	Tanks, pits, lagoons, or ditches.					
Surface water plumes or sheens.	Waste material piles.					
Raw material storage piles.	Barrels or other storage containers.					
Security fencing and protected areas.	Landfills and areas used for burning.					
Loading ramps and railroad staging areas.	Filled areas.					
Pumping manifolds.	Fill pipes or other pipes projecting out of the ground.					
Part 3. Land surface characteristics that may indicate problems.						
Color variations in soils or stained soils.	Barren soil areas.					
/ Exposed and graded soils.	Obvious changes in vegetation density.					
✓ Drainage patterns bringing drainage from off-site.	Dead trees and shrubs.					
STORAWATER FLOWS TO CREEK	Barren vegetation adjacent to live vegetation.					
Part 4. Building features and equipment that may indicate prob	plems. Check if any of the following is observed:					
Asbestos-containing materials, such as pipe insulation,	Electrical transformers.					
ceiling or floor tile, transit board, sprayed-on fireproofing, etc.	Floor drains.					
	Hydraulic equipment.					





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,	Projec	ct Information	on			
Property Location	I					
	Industrial		,			
	Commercial/					
General Setting	Residential	RAD	AL RESTDENTEAL			
osg	Mix-Use	MUE	THE TRESLIBENTIAL			
	Agricultural					
,	Other					
Owner of the Property	_ 					
	Roadway					
-	Bridge		Vehicles, Bikes, Pedestaian			
	Highway		tericles, Dikes, recressitan			
	Intersection					
Property Type	Vacant Lot					
-1 2	Open Space					
	Commercial Area					
	Residential Area					
	Other					
Other Pertinent Information						
Prop	erty Improvement	& Building	/Land Description			
Property Location						
Access to Property	THE RESERVE OF THE PARTY OF THE					
Lot Size & Shape						
Building Size & Shape						
Bridge type	ehicles =	Bike 5	, redestarans			
Year Built		-	, resessance			
	Current Occupant	s & Use of	the Property			
Present Occupant/Business Operation	TAY BY WAS IN					
Number of Occupants/Units/Tenants	The state of the state of					
	Municipal S		ilities			
Source of Potable Water	MUNICIPAL					
Gas/Oil Source for Heating	19,2773 3	V				
Electrical Source	OVERHEAD POWERNINES					
Sewage Disposal System	Possible Septic/Leach Fields					
Solid Waste Disposal	MUNEC		PICK-UP			
I	Subject prope	N. Bernstein and St. Bernstein	RESPONSE LA CONTRACTOR DE			
ITEM		LOCATION	AND DESCRIPTION			
Processes that generate or handle Petro	oleum Products or					
Underground Storage Tank						
Aboveground Storage Tank		Resi	dential Propane			
Fuel Islands / Dispensers						





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Any type of fueling systems	
Containers of Hazardous Material & Petroleum Products	
Other containers of suspicious hazardous materials in	
Containers not attributed to current use of the Subject	
Wastewater Treatment Units & Clarifiers	
Project Area	Reconnaissance
ITEM	LOCATION AND DESCRIPTION
Pools of liquid	
Drains and Sumps	
Any regulated surface wastewater discharges	
Storm water or surface-water drainage system having any	Coope to Colors English Colors
Any stained catch basins, drip pads, or sumps	CORB+ GUHEST; FLOWS TO CREEK
Visual indication of Herbicides & Pesticides use to pose	
Visual evidence of leak or contamination from septic	
Wells (any irrigation wells, injection wells, abandoned	
Railroad tracks or spurs	
Visual evidence of improper handling/disposal or solid	
Other visual evidence of spills, leakage, staining,	
Dry-cleaning operation on site	
Environmental Permits, NPDES, Hazardous	
Compliance records, permits and plans, etc. in relation to	
Permits, Licenses & Registrations for Current & Past and	
	RCLA Items
ITEM	LOCATION AND DESCRIPTION
Suspicious asbestos-containing materials in damaged	
Suspicious lead-based paint in damaged condition if the	
Lead in drinking water	
Radon gas concern	
Visual evidence of Urea Formaldehyde	
Suspicious PCB-oil concern with hydraulic equipment,	
	RCLA Items
ITEM	LOCATION AND DESCRIPTION
Wetland, creeks, swale, pits, ponds, lagoons, or any other	CREEK
Visual evidence of mold problems from wet areas, roof	GREEN
Air quality problems (unusual smells, obnoxious odors, or	
s the property under flood zone (FEMA)	
	t Properties
	way, Street, Public Thoroughfare, River, Or Stream.
North BROOKSIDE TERRACE	
South STEED : RISING SLOPE	
West Silverado Cyn. Roys	
East Silverado Cyn Bord	Row Residences
STORES CORE HOPED	FUN ROTOLINGES





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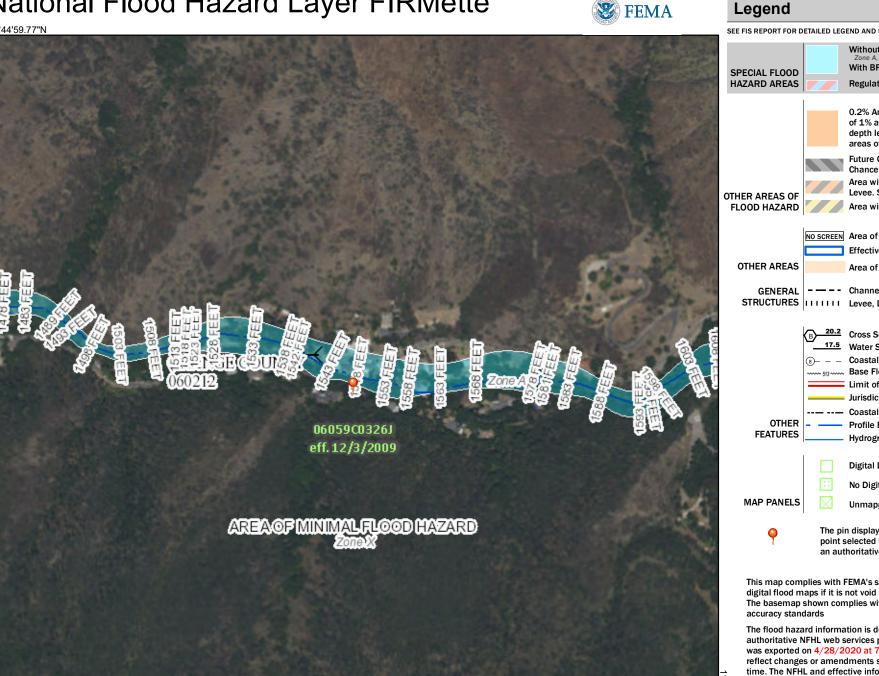
Fax: 925.941.0018 www.wreco.com

The purpose of the site reconnaissance is to document visual and/or physical observations, defined as observations made by vision and observations made by the sense of smell (particularly noxious or foul odors).
By signing below, I hereby certify that the above information is true and correct to the best of my knowledge.
Name of Preparer WALTER B. CRATG
Based on the above information, I recommend:
Signature D. S. Cacco
Date 07- Ne- 2020



National Flood Hazard Layer FIRMette





USGS The National Map: Orthoimenery, Data refreshed April, 2019.

1:6,000

Feet

2,000

250

500

1,000

1,500

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

Without Base Flood Elevation (BFE) With BFE or Depth Zone AE, AO, AH, VE, AR **Regulatory Floodway** 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X **Future Conditions 1% Annual** Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee. See Notes. Zone X Area with Flood Risk due to Levee Zone D NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs Area of Undetermined Flood Hazard Zone D - -- - Channel, Culvert, or Storm Sewer STRUCTURES | IIIIII Levee, Dike, or Floodwall Cross Sections with 1% Annual Chance Water Surface Elevation **Coastal Transect** Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary **Coastal Transect Baseline Profile Baseline** Hydrographic Feature Digital Data Available No Digital Data Available Unmapped

> The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/28/2020 at 7:13:55 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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