Camp San Luis Obispo Vehicular Bridge 3 Replacement Project

Final IS/MND

California Military Department

July 2023



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Camp San Luis Obispo Vehicular Bridge 3 Replacement Project

Prepared for:

California Military Department
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1. Project Information

Project Title	Camp San Luis Obispo Vehicular Bridge 3 Replacement Project (Project)
Lead Agency Name & Address	California Military Department Camp San Luis Obispo 10 Sonoma Ave, San Luis Obispo, CA 93405
Contact Person & Phone Number	Brian D. Woods, PE, MAJ, EN (805) 748-1232 brian.d.woods26.mil@army.mil
Project Location	Kern Ave, Camp San Luis Obispo, San Luis Obispo, CA 93405 (35.325064, -120.733783)
General Plan Land Use Designation	Public Facility
Zoning	PF

1.1 CEQA Requirements

This Project is subject to the requirements of the California Environmental Quality Act (CEQA). The lead agency is California Military Department. The purpose of this Initial Study is to analyze potential environmental impacts and provide a basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration. This Initial Study is intended to satisfy the requirements of CEQA (Public Resources Code [PRC], Div 13, Sec 21000-21177), and the State CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387). CEQA encourages lead agencies and applicants to modify their projects to avoid significant adverse impacts.

Section 15063(d) of the State CEQA Guidelines states the content requirements of an Initial Study as follows:

1. A description of the project including the location of the project;
2. An identification of the environmental setting;
3. An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
4. A discussion of the ways to mitigate the significant effects identified, if any;
5. An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls; and
6. The name of the person or persons who prepared or participated in the Initial Study.

1.2 NEPA Requirements

Federal funding may be sought to help finance the Project. If federal funding is obtained for the Project, then the Project would be subject to environmental review under National Environmental Policy Act (NEPA). The federal agency from which the CMD requests funding would determine what level of review is needed for the Project but is assumed to be a NEPA Categorical Exclusion as provided in Appendix B. The California Army National Guard Bureau (CA ARNG) is the NEPA Lead Agency and is authorized to adopt NEPA Categorical Exclusions. The Camp San Luis Obispo (Camp SLO) Environmental Office will prepare NEPA documentation for the proposed Project, as needed, prior to discretionary approval of the Project.

1.3 Purpose and Need

The Project Area is located at Camp San Luis Obispo (Camp SLO; Figure 1 – Project Vicinity Map), in San Luis Obispo County, California. The Project involves a proposed bridge replacement at the existing bridge (Bridge 3, referred to elsewhere in various documents at Camp SLO as Bridge 104) on Kern Avenue, over Dairy Creek, and motorized access gates at the Hollister Road intersection. Bridge 3 is an approximately 78-foot long and 24-foot-wide solid sawn timber bridge supporting two vehicle travel lanes and no sidewalks. A structural assessment report, including information pertaining to Bridge 3, was prepared by GHD in 2016. The report indicated Bridge 3 was structurally deficient and required replacement. At the time of this report, Bridge 3 is closed to vehicle and pedestrian traffic.

The goal of the Project consists of replacing the existing structure in-place with a functional and economical bridge. The intent is to provide a bridge deck width that accommodates two lanes of traffic and a sidewalk on the south side of the bridge. A single-span precast prestressed concrete girder bridge is preferred with an increased span length to avoid any foundations in Dairy Creek. The bridge would be supported on pile abutments located outside the limits of the creek banks. Vehicle and pedestrian access gates (Tymetal or equal) are proposed to address access needs at the Hollister Road and Kern Avenue intersection. The new access gates would be configured to allow for entrance queuing outside the travel way with minimal impacts to existing improvement.

1.4 Camp San Luis Obispo

Camp San Luis Obispo (Camp SLO) is the original home and training site for the CA ARNG. During World War II, Camp SLO served as an Infantry Division Camp and Cantonment Area for the U.S. Army. Today, Camp SLO is a high-quality training camp with field and garrison facilities. Camp SLO provides operational, logistical support, and training to civilian and military agencies at the local, state, and federal areas, including the California Army and Air National Guard, the U.S. Coast Guard reserve, California Specialized Training Institute, the U.S. Army Reserve, the California Conservation Corps, Cuesta Community College, and the California Department of Transportation (Caltrans).

1.5 Project Location

The Project is located within Camp SLO, located approximately 3 linear miles west of the City of San Luis Obispo, in west central San Luis Obispo County. Camp SLO encompasses approximately 5,612 acres, 622 acres of which are developed. Access to Camp SLO is provided via Highway 1.

Bridge 3 is located above Dairy Creek, just west of the intersection of Amador Avenue and Kern Avenue (35.325064, -120.733783). The access gate to be replaced is located at the western entrance to Camp SLO at the intersection of Hollister Avenue and Kern Avenue.

Administrative buildings and other facilities affiliated with Camp SLO are located immediately adjacent to the Project Area. Cuesta College, the County of San Luis Obispo Jail, and the California Men's Colony (a state prison facility) are located immediately adjacent. El Chorro Regional Park is located approximately 0.4 miles to the north. Other adjacent property is largely undeveloped, privately-owned, and utilized for cattle grazing.

1.6 Project Description

CMD is proposing to replace an existing vehicular gate and a vehicular bridge (Bridge 3) in order to address the current structural deficiency of the existing bridge. The replacement bridge would be in generally the same location as the existing bridge but would encompass a larger footprint in order to include a sidewalk. The bridge would support an approximately 10-inch existing sewer line, two (2) four-inch conduits for future power, two (2) four-inch conduits for future telecommunications, and one (1) one-inch conduit for bridge luminaires. The vehicle speed limit is expected to be 35 miles per hour (MPH) maximum with a Class 40 loading. The proposed bridge includes the following improvements:

- **Structure:** The bridge would accommodate two drive lanes along with a raised sidewalk on the south side. The bridge would utilize precast prestressed concrete girders that would span the channel. The deck would be cast-in-place concrete and placed over the girders. New concrete abutments would need to be installed outboard of the existing abutments. The existing piers located in the channel would be cut off at the mudline and removed. The roadway approaches would be asphalt concrete to match the existing roadways. An ADA compliant sidewalk would be incorporated into the new bridge along the southern side to tie into the existing sidewalks.
- **Drainage:** Drainage of the bridge deck would be accomplished on the southern side of the bridge by draining to a detention basin that would treat the runoff before entering Dairy Creek. Drainage on the northside of the bridge would flow directly into Dairy Creek. No existing stormwater drainage exists at the gate and would remain the same post Project.
- **Lighting:** Bridge lighting would match other existing Base bridges, with pedestrian lighting provided at each end and the bridge sidewalk midspan. Light fixtures would be Light Emitting Diode (LED) type matching existing light standards. Power for Project Area lighting would originate from a new 100-amp 120/240-volt rated power distribution pedestal located on Amador Avenue north of the bridge. Power would originate from a new 120/240-volt pole mount transformer, supplied from an existing 12kV overhead circuit. Any required lighting controls would be housed within the new power distribution pedestal.
- **Utilities:** Known utilities at the Project Area include overhead utility lines, a 28-inch CMP storm drain, an 8-inch sewer main, an 8-inch water main, and abandoned 2-inch gas and 8-inch water mains. The existing overhead utility lines and poles would be impacted during construction activities and would be temporarily relocated until the work is completed. An existing 8-inch sewer main is located underneath the north side of the existing bridge and would be removed and replaced with the new bridge. The existing 8-inch water main located south of the bridge is not attached to the existing bridge structure; no impacts to this utility are expected. The existing and abandoned 2-inch gas and 8-inch water main are located outside the prism of the existing bridge but attached to the existing timber bents supporting the bridge. These utilities would be removed and capped on either end of Dairy Creek.

Existing access at the intersection of Hollister Road and Kern Avenue include a manually operated double swing vehicle gate and manually operated padlock pedestrian access gate. The existing vehicle gate is approximately 25-ft wide and is a double swing gate with center post for locking. Improvements would include the following:

- **Vehicle Access Gate:** The proposed vehicle access gate will be modified into a keypad operated sliding gate. Vehicles exiting the area would trigger the gate by a sensor inlayed in the new pavement section. The vehicle keypad would be situated on the driver side of the entry gate, out of the vehicle travel lanes. The gate would be reconfigured to be recessed for standard sized passenger vehicles to que during gate operations outside the vehicle traffic pathways on Hollister Road. The security fencing would be extended to fully enclose this area.
- **Pedestrian Access Gate:** The pedestrian access gate would be located adjacent to the sliding gate on the south side and would connect to the existing sidewalk built within Camp SLO. The existing asphalt ramp up to the concrete sidewalk would be modified to allow for a level landing per ADA requirements. Access for the pedestrian gate would be provided via a pushbutton type combination lock.

1.7 Project Construction

Construction Schedule

The construction schedule on a creek bridge project is typically driven by the “in-channel” construction window associated with the creek work and access. That window is typically defined on the outer limits by April 15 to October 15; however, based on the species at the Project Area, it can be restricted even further. The Biological Resources Report (BRR) prepared for the Project (GHD, 2022) contains several mitigation measures which may affect construction schedule. These measures include protection for bats, migratory and nesting birds, California Red-legged Frog and Special Status Amphibians, reptiles, and fish.

Construction is anticipated to commence in 2023 and is expected to occur over two construction seasons. In-water construction would occur within the regulated in-water work period, typically June 15 through October 31. Construction would require approximately six to nine months.

The type of construction elements in the Project can affect the duration of construction. Disruptions in material availability for construction has impacted projects worldwide over the past year. Delays in the receipt of materials that are not typically considered long lead items may impact the construction schedule.

Construction Activities and Equipment

Construction equipment would work from the streambank and would only enter a dry or dewatered environment. While not expected, dewatering, if needed, would utilize coffer dams and/or other similar structures. Prior to dewatering, fish removal would occur by a qualified biologist following requirements from the California Department of Fish and Wildlife (CDFW) and the National Marine Fisheries Service (NMFS). Following construction, coffer dams and other structures used during dewatering would be removed.

Project construction would require daily crews of approximately ten workers. Construction equipment would include, but would not be limited to, a backhoe, excavator, grader, roller, concrete truck, bulldozer, dump trucks, water trucks, and pickup trucks.

As discussed in Section 1.6, known utilities at the Project Area include overhead utility lines, a 28-inch CMP storm drain, an 8-inch sewer main, an 8-inch water main, and abandoned 2-inch gas and 8-inch water mains. Utilities would be temporarily relocated, replaced, or removed as described.

Construction Access

At the time of this report, Bridge 3 is closed to vehicle and pedestrian traffic. No new access roads would need to be constructed to implement the Project.

Vegetation Removal

Vegetation removal would include trees within the stream channel, and minor vegetation adjacent to the bridge as needed to accommodate removal of the existing bridge and for construction access. Activities would include minor mowing and removal of brush and small trees (< 12-inch diameter). A Vegetation Management Plan will be prepared to identify vegetation to be removed and identify the types and locations of replacement vegetation. Per the Camp SLO Integrated Natural Resources Management Plan (IRMP), riparian tree removal requires a 3:1 replacement ratio using only native vegetation and trees for revegetation efforts and avoid the removal of large trees including oaks, willows, and sycamores. Additionally, loss of riparian vegetation will be limited to the extent feasible to minimize disturbance and protect the upland habitat above Dairy Creek.

To minimize potential impacts to birds, vegetation could be removed prior to March 15 or after August 15 to avoid the nesting bird season. If vegetation removal or ground disturbance cannot be confined to work outside of the nesting season, a qualified ornithologist would conduct pre-construction surveys within the vicinity of the Project Area, to check for nesting activity of native birds and to evaluate the Project Area for presence of raptors and special-status bird species. If active nests were detected within the construction footprint or within the construction buffer established by the Project biologist, the biologist would flag a buffer around each nest.

Stockpiling and Staging

Construction parking, staging, stockpiling, and materials and equipment storage would occur at suitable areas within 0.5 miles of the Project Area. Within the stockpiling and staging area, BMPs would be utilized to prevent materials and hazardous materials from impacting the environment.

Traffic and Access Control

The existing bridge crossing is currently closed to vehicle and pedestrian traffic and would continue to remain closed during construction. In order to access facilities west of Dairy Creek, personnel at Camp San Luis Obispo would continue to use bridges located at Mendocino Avenue and Humboldt Avenue.

Groundwater Dewatering

Groundwater dewatering is generally not expected to be required. However, if needed, temporary groundwater dewatering would involve pumping water out of a trench or excavation. Groundwater would typically be pumped to a settling pond, Baker tanks (or other similar type of settling tank), or into a dewatering bag. Discharge to Dairy Creek would not occur.

Site Restoration and Closure

Following construction, the contractor would demobilize and remove equipment, supplies, and construction wastes. No post-construction restoration or revegetation activities are anticipated necessary.

1.8 Operation and Maintenance

Once construction has been completed, the bridge and access gate would be operated and maintained similar to existing conditions. Access would be available at all hours, seven days a week. Implementation of the Project is not anticipated to result in an increase in use or vehicle trips. No additional staff would be needed to manage, operate, or maintain the upgraded facilities.

Following construction, the facilities would be maintained by CMD. Operation and maintenance activities would include occasional repaving or pavement repair, maintenance of drainage, lighting, and utilities, and monitoring and maintenance of the gate. Trees and vegetation encroaching on the bridge would be trimmed and maintained as needed. The retention basin on the southwest side of the bridge would be cleaned out periodically to remove sediment.

1.9 Other Requirements and Considerations

Compliance with Existing Regulations and Standard BMPs

The Project will abide by the following regulations and industry-accepted Best Management Practices (BMPs) to reduce or avoid potential adverse effects that could result from construction or operation of the Project. In addition to these BMPs, mitigation measures are presented in Chapter 3, Environmental Analysis, to reduce potentially significant environmental impacts below a level of significance. The actions identified below and the mitigation measures prescribed in the subsequent sections of this Initial Study will be included in the Mitigation Monitoring and Reporting Program (MMRP) for consideration during the Project approval process. The MMRP will define the responsible parties, timing, specific actions, and reporting requirements for all conditions of approval and mitigation measures.

San Luis Obispo County Air Pollution Control District (SLO County APCD) NESHAP Notification

Work meeting the NESHAP definition of a demolition and/or work impacting RACM in quantities above specific size thresholds necessitates the submittal of a Renovation/Demolition Notification form and associated fee to the SLOCAPCD (address above). SLOCAPCD requires a notification for the disturbance of any amount of suspect ACM, however, the RACM quantity thresholds necessitating notification and associated fee to SLOCAPCD are greater than, or equal to the following:

– *160 square feet, 260 linear feet (for pipe insulation), or 35 cubic feet (for debris or waste)*

The NESHAP regulations stipulate that the Project owner shall notify the SLOCAPCD at least 10 business days prior to the commencement of a renovation or demolition project or work that impacts RACM in excess of the above-noted quantities. A NESHAP notification is required by the SLOCAPCD if a project includes one or more of the following:

– *The impaction of RACM in excess of the SLOCAPCD notification thresholds*
– *Work that meets the NESHAP definition of a "demolition," which is defined as the unweighting or removal of any structural members*
    - *Note: a NESHAP notification is required for all demolition projects and is not dependent on the presence or absence of asbestos (ACM or RACM)*

In addition to the NESHAP regulations enforced by the SLOCAPCD, work at the project area shall be conducted in accordance with applicable employee protection regulations enforced by Cal/OSHA, including 8CCR1529, 5203341.6-341.26 and the California Health and Safety Code.

As required by 8CCR1529(r) and 5203, written notification must be made to the nearest Cal/OSHA District Enforcement Office with jurisdiction over the project area for Asbestos-Related Work. Cal/OSHA notification shall be made at least 24 hours prior to the start of hazardous material-related work and is required if the planned project scope includes the one or both of the following elements:

– *The impaction of ACM, ACCM and/or LBP in excess of 100 square feet*

Asbestos (Air Toxic Control Measure) ATCM for Construction, Grading, Quarrying, and Surface Mining Operations

The Project is located an area of naturally occurring asbestos (NOA) and therefore is required to abide by the California Air Resources Board's Air Toxics Control Measure (NOA ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities (SLO County APCD 2022d).

Implement Geotechnical Design Recommendations

The Project will be designed and constructed in compliance with the site-specific recommendations made in Geotechnical Report (GHD 2016). This will include design in accordance with recommendations for no wet weather earth work, subgrade preparation, engineered fill, compaction requirements open-cut trenching, seismic design, surface drainage and erosion control, construction observation and other factors. The geotechnical recommendations will be incorporated into the final plans and specifications for the Project and will be implemented during construction.

Tribal and Archaeological Monitoring

CA ARNG is committed to tribal and archaeological monitoring during construction activities. In compliance with Section 106 of the National Historic Preservation Act (NHPA), CA ARNG notified the Santa Ynez Band of Chumash Indians' (SYBCI) Tribe regarding the Project and prior to ground disturbing activities. In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, CA ARNG will provide a qualified archaeologist to monitor the remaining ground-disturbance activities and ensure that such activities do not adversely affect recorded archaeological sites.

Nesting Bird Survey

For any construction activities occurring between March 15 through August 15 , a qualified biologist will conduct a nesting bird survey within two weeks prior to the start of construction. If nesting birds are found, an appropriate setback buffer will be established, and no construction activities will occur in this setback area until the birds have fledged and are no longer reliant on the nest.

Implementation of Erosion and Sediment Control Plan Through Adherence to NPDES General Permit for Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)

The Permittee shall adhere to the National Pollutant Discharge Elimination System (NPDES) General Permit for Waste Discharge Requirements (WDR's) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (ms4s) water quality (wq) order 2013-0001-dwq NPDES no. cas000004 as amended by order wq 2015-0133-exec, order wq 2016-0069-exec, wq order 2017-xxxx-dwq, order wq 2018-0001-exec, and order wq 2018-0007-exec. Which requires the permittee to develop, implement, and enforce a program to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters. The program shall include the development of an enforceable construction site storm water runoff control ordinance for all projects that disturb less than one acre of soil. The construction site storm water runoff control ordinance shall include, at a minimum, requirements for erosion and sediment controls, soil stabilization, dewatering, source controls, pollution prevention measures and prohibited discharges.

The review procedures shall meet the following minimum requirements:

a. *Prior to issuing a grading or building permit, the Permittee shall require each operator of a construction activity within its jurisdiction to prepare and submit an erosion and sediment control plan for the Permittee's review and written approval. The Permittee shall not approve any erosion and sediment control plan unless it contains appropriate site-specific construction site BMPs that meet the minimum requirements of the Permittee's construction site storm water runoff control ordinance. If the erosion and sediment control plan is revised, the Permittee shall review and approve those revisions.*
b. *Require that the erosion and sediment control plan include the rationale used for selecting BMPs including supporting soil loss calculations, if necessary.*
c. *Require that the erosion and sediment control plan list applicable permits directly associated with the grading activity, including, but not limited to the State Water Board's CGP, State Water Board 401 Water Quality Certification, and California Department of Fish and Game 1600 Agreement. Include as a condition of the grading permit that the operator submit evidence to the MS4that all permits directly associated with the grading activity have been obtained prior to commencing the soil disturbing activities authorized by the grading permit.*
d. *Conduct and document review of each erosion and sediment control plan using a checklist or similar process.*
e. *The SWPPP developed pursuant to the CGP may substitute for the erosion and sediment control plan for projects where a SWPPP is developed. The Permittee is responsible for reviewing applicable portions of the SWPPP for compliance with the Permittee's construction site storm water runoff control ordinance and this Order.*

Spill Prevention, Control, and Countermeasure Plan

Construction workers shall take the following 9 steps in the event of spills or leaks of petroleum products, hazardous construction chemicals, or other hazardous chemicals during construction.

1. Stop the Flow if possible – shut off valves, turn drums upright, plug or cover the leak source. Don't take unnecessary chances but stop the flow if you can do so without getting hurt or contaminated. Approach the spill/release from the upwind side. Shower and change clothes as soon as possible if you come in contact with hazardous materials.
2. Contain the Spill to the smallest possible area: surround with absorbent material, dirt, floor sweep, etc. Make every effort to keep spilled materials out of storm drains, sewers, or other drainages or water ways.
3. Control Traffic. Don't let other people drive or walk-through spill area. Set up traffic barriers, orange cones, tape off the area and or leave a person at the spill site to divert traffic away from the area. If the spill is small, it may be better to stop the source and contain the flow before notifying your supervisor.

4. Report the spill to your supervisor and sound the local alarm or give verbal warning.

    a. If the spill/release occurs during regular work hours and the spill/release is a hazardous material greater than one gallon in volume, if spilled to an impervious/pervious land surface, or any volume, if spilled to a surface waterway, contact the California Army Division – Environmental (NGCA-ARN-EN) or the appropriate training site environmental office to ascertain if the California Emergency Management Agency (Cal-EMA) is required to be notified. If the release/spill is more than you can safely handle or if the spill/release has entered a storm drain or waterway appoint a responsible person to call the local emergency response or to call 911.

    b. If the spill/release occurs after regular duty hours and/or on a weekend or holiday, call the California National Guard Joint Forces Headquarters' Joint Operations Center (JOC) at (916) 854-3440 or DSN 466-3440. Leave your name or other point of contact, telephone number and a brief description of the incident with the JOC Duty Officer and follow the JOC's instructions.

5. Isolate the immediate spill area if it has been ascertained that the release/spill is a significant release until emergency response agents arrive. Keep other people or vehicles out of danger and avoid blocking access for emergency responders.

6. If the spill/release is contained on a paved surface (concrete/asphalt) and has been absorbed completely, collect the spill debris and place into an appropriate container. Mark the container with a hazardous waste label and mark the label with a permanent marker "HAZARDOUS WASTE, CONTAMINATED ABSORBENT (name of spilled material if known)". Turn in collected wastes to the designated collection point at the training sites, or to your facility's hazardous waste accumulation site for disposal. If on the road use the sturdy garbage bags in the vehicle spill kits until the spill debris can be transferred into an appropriate container.

7. If the spill/release did not occur on an impervious surface, or if it went into drainage or waterway, then your Environmental Compliance Officer (ECO) or unit supervisor will immediately notify the California Army Division - Environmental Directorate and the appropriate contacts listed in the Emergency Response Notification List.

8. Coordinate with your ECO to fill out CA ARNG Form 200-1-8b: Hazardous Materials/Waste Incident Report. Send or fax copies to:

    California Military Department
    3900 Roseville Rd.
    North Highlands, CA 95600
    Fax: (916) 854-1467

9. Call the California Army Division – Environmental at (916) 854-1479 if you have questions pertaining to spill/release notification and reporting.

Required Permits, Approvals, and Consultations

CA ARNG would obtain all required permits and authorizations prior to completing construction (Table 1-1). CA ARNG would comply with all conditions identified in those permits and authorizations, including any additional conditions required by regulatory agencies that are not contained in this Initial Study. Should a permit condition differ from an Environmental Condition or Mitigation Measure contained in this Initial Study, the permit condition shall prevail unless it is determined that its implementation would not adequately mitigate an environmental impact under CEQA. In such a case, both the permit condition and the Initial Study Mitigation Measure would be implemented as deemed necessary by CA ARNG and the regulatory agency. The Project would require the following permits and authorizations from federal, state, and local agencies:

Table 1-1 Required Permits and Authorizations

Agency	Permit or Approval	Trigger
California Military Department (CMD)	California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration (IS/MND)	CEQA must be completed for discretionary action before CMD approves the Project
California Army National Guard (CA ARNG)	National Environmental Policy Act (NEPA) Categorical Exclusion (CE)	Federally funded military source
U.S. Fish and Wildlife Service (USFWS)	Federal Endangered Species Act Section 7 formal or informal consultation for species not covered under Camp SLO Programmatic Biological Opinion.	Project Area includes habitat for California Red-legged Frog.
National Marine Fisheries Service (NMFS)	Federal Endangered Species Act Section 7 formal or informal consultation	Project Area includes critical habitat for steelhead (south central California coast DPS)
California Department of Fish and Wildlife (CDFW)	Section 1602 Lake and Streambed Alteration Agreement	Work within a streambed
State Office of Historic Preservation (SHPO)	National Historic Preservation Act (NHPA) Section 106 coverage under Title 36 Part 800 of the Code of Federal Regulations and Programmatic Agreement	Cultural resources investigation documenting potential for impacts to cultural resources
State Water Resources Control Board (SWRCB)	Construction General Permit coverage	> One acre of construction-related ground disturbance
Regional Water Quality Control Board (RWQCB)	Clean Water Act Section 401 Water Quality Certification	Drainage improvements adjacent to the bridge replacement
Regional Water Quality Control Board (RWQCB)	SWPPP or Water Pollution Control Plan	> One acre of construction-related ground disturbance
San Luis Obispo County Air Pollution Control District	Asbestos Dust Mitigation Plan OR Exemption from ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations	Construction and because the Project Area is located within SLOCAPCD's Naturally Occurring Asbestos Map

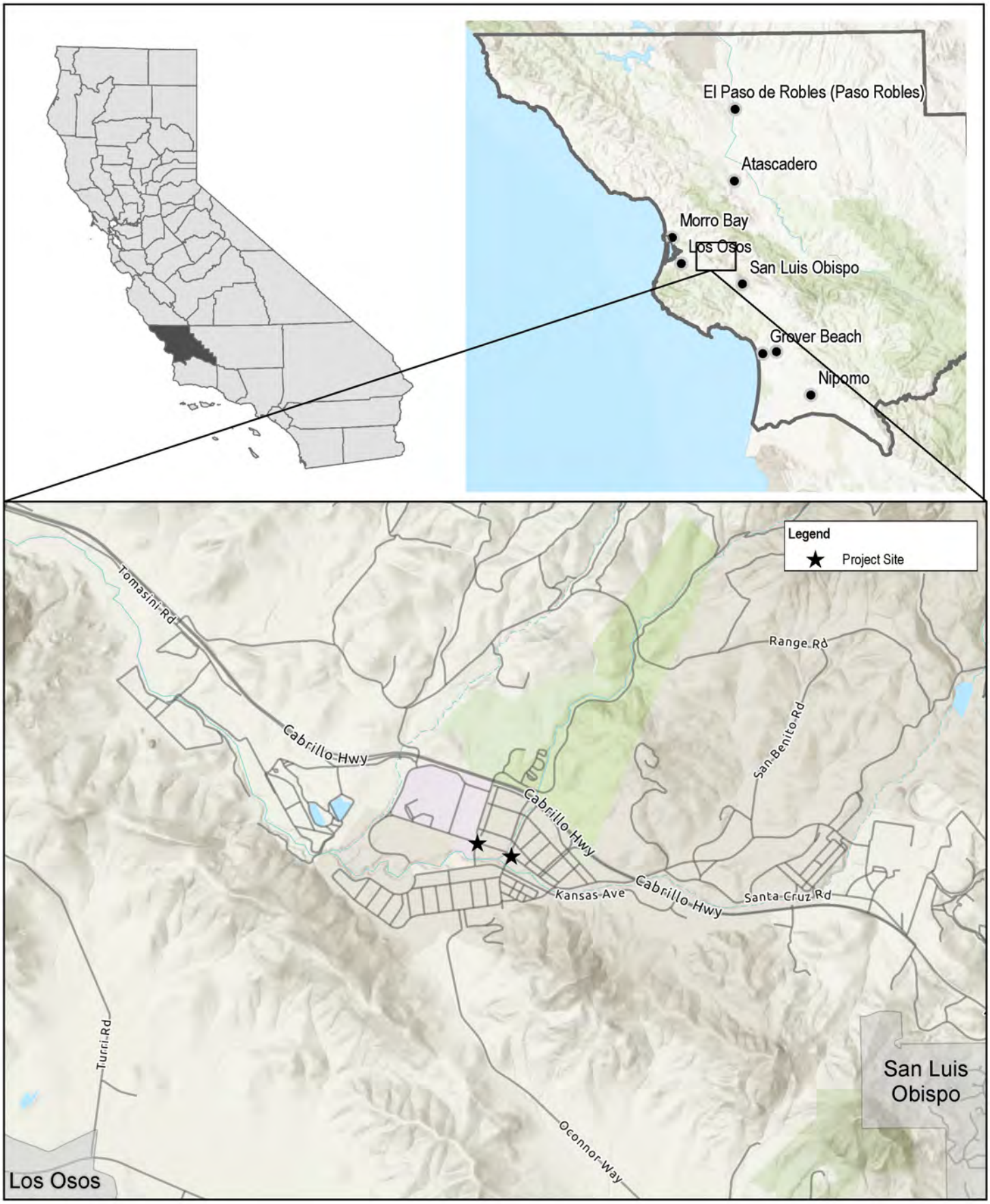
Mitigation, Monitoring, and Reporting Program

The Mitigation, Monitoring, and Reporting Program (MMRP) for this Initial Study/Mitigated Negative Declaration (ISMND) is included in Appendix A. The MMRP includes a summary of all mitigation measures and how each mitigation measure would be implemented to ensure all potential impacts associated with the Project would result in a less than significant environmental impact.

Tribal Consultation

CA ARNG has not received any Tribal Consultation requests for projects at Camp SLO. However, the local tribe (Yak Tityu Tityu Yak Tilhini Tribe) works through the federally-recognized Santa Ynez Band of Chumash Indians' (SYBCI) in the NHPA Section 106 process for projects at Camp SLO.

CA ARNG consulted with representatives of the SYBCI for the Project in November 2022. The SYBCI requested that a Tribal monitor be present during ground disturbing activities. Thus, consistent with Environmental Protection Action 1 (Tribal and Archaeological Monitoring), the SYBCI will be notified prior to ground disturbing activities so that a Tribal monitor can be present.



Paper Size ANSI A

0 0.2 0.4 0.6 0.8

Miles

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

N

GHD

The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

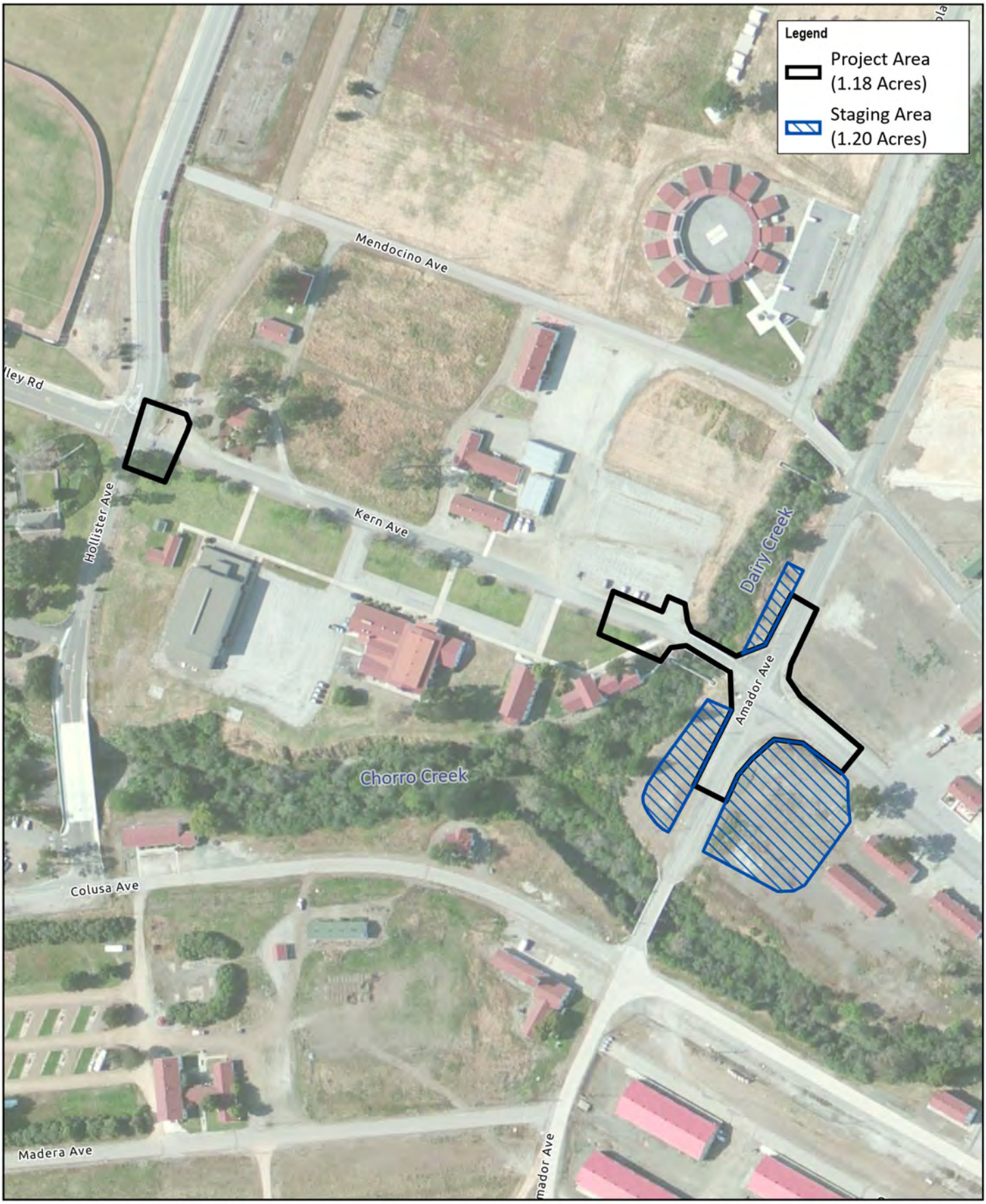
Project No. 12562944
Revision No. -
Date Oct 2022

Vicinity Map

FIGURE 1

\\ghdnetghd\US\Roseville\Projects\561\12562944\GIS\Maps\Deliverables\12562944_CampSLO_BRR.aprx - 12562944_01_Vicinity Print date: 12 Oct 2022 - 13:12

Data source: Road Names: California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA; World Topographic Map - labelless: California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA; transportation: USGS The National Map: National Transportation Dataset; U.S. Census Bureau – TIGER/Line; U.S. Forest Service. Data Refreshed July, 2022.; World Hillshade: Esri, NASA, NGA, USGS, FEMA; World Topographic Map - labelless: California



Paper Size ANSI A

0 50 100 150 200 250

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: NAD 1983 2011
Grid: NAD 1983 2011 StatePlane California V FIPS 0405 Ft US

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GHD

The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

Project No. **12562944**
Revision No. **-**
Date **Jan 2022**

Project Area

FIGURE 2

\\ghdnet\ghd\US\Roseville\Projects\561\12562944\GIS\Maps\Deliverables\12562944_CampSLO_BRR.aprx - 12562944_02_ProjArea Print date: 26 Jan 2022 - 17:55

Data source: Road Names: Esri Community Maps Contributors, County Of San Luis Obispo, California State Parks, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA
Outside: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Created by:

2. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages:

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

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect: (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

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Brian D. Woods, PE
MAJ, EN

Date

3. Environmental Analysis

3.1 Aesthetics

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the Project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view 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?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

a) Have a substantial adverse effect on a scenic vista? (Less than Significant Impact)

The Project Area is a military base that is largely developed. The Project and adjacent areas are not considered a protected scenic resource in the County of San Luis Obispo general Plan's "Conservation and Open Spaces Element (County of San Luis Obispo General Plan, 2010). The change in aesthetic from the current bridge and gates would be negligible since both are replacing existing structures of similar size and function. No Impact would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Less than Significant Impact)

Camp SLO surrounds Highway 1, a Caltrans designated scenic highway in that area. However, views of the proposed Project components would not be visible from the highway. Any public scenic vistas in the surrounding area would not be affected by the Project. This is because the change in aesthetic from the current bridge and gates would be negligible since both are replacing existing structures of similar size and function.

Vegetation removal would be limited to minor vegetation adjacent to the bridge as needed to accommodate removal of the existing bridge and for construction access. Vegetation removal would include minor mowing and removal of brush and small trees (< 12-inch diameter).

The Project and adjacent areas are not considered a protected scenic resource in the County of San Luis Obispo General Plan's "Conservation and Open Spaces Element (County of San Luis Obispo General Plan, 2010).

There are no historic structures or historic buildings within the Project's APE, and there are also no rock outcroppings. Some existing vegetation would be removed during repair but would be replanted as part of the Project. The trees to be removed are under 12-inches in diameter. No impact would result.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view 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? (No Impact)

Camp SLO is a military base that is not accessible to the public under normal circumstances. Views from publicly accessible areas looking at the base would not be affected. This is because the Project Area is developed, and the Project consists of replacing the existing bridge and gate with approximately the same footprint and function. The Project does not include any tall visual elements that would block or screen public views, and replanted trees would be consistent with the surrounding area. No impact would result.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Less than Significant Impact)

Bridge lighting would match other existing Base bridges, with pedestrian lighting provided at each end and at the bridge sidewalk midspan. Light fixtures would be Light Emitting Diode (LED) type matching existing light standards. The adjacent area to the Project Area has various lighting elements that would be similar to the new light added for the bridge. The addition of lighting for the bridge would have negligible impacts on day or nighttime views. No lighting will be added for the new gates. The impact would be less than significant.

3.2 Agriculture and Forest Resources

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

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? (No Impact)

The Project is not located on existing farmland or forestland. The Project would not be located on lands designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance (CDC 2018), nor on land under a Williamson Act contract (County of San Luis Obispo, 2022) The Project would not be constructed on land zoned for agricultural or forestland uses. Thus, the Project would not convert Important Farmland, land under a Williamson Act contract, or forest land to other uses, nor conflict with zoning for agricultural or forestry uses. No impact to agriculture or forestry resources would result.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (No Impact)

See above discussion under Impact 3.2a.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (No Impact)

See above discussion under Impact 3.2a.

d) Result in the loss of forest land or conversion of forest land to non-forest use? (No Impact)

See above discussion under Impact 3.2a.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? (No Impact)

See above discussion under Impact 3.2a.

3.3 Air Quality

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

The Project is located within the South Central Coast Air Basin (Air Basin). The San Luis Obispo County Air Pollution Control District (SLO County APCD) is the local air district that monitors air quality, enforces local, state and federal air quality regulation for the county of San Luis Obispo (SLO), inventories and assessed the health risks of Toxic Air Contaminants (TAC's), and adopts rules that limit pollution. SLO County is designated 'attainment' for all National Ambient Air Quality Standards. Pursuant to California Ambient Air Quality Standards, the portion of San Luis Obispo County where is the Project is located is designated "attainment" or "unclassified" for all criteria pollutants except PM10 and ozone standards. SLO County is designated as "non-attainment" for the State's PM10 and ozone standards.

PM_{10} refers to inhalable particulate matter with an aerodynamic diameter of less than 10 microns. PM_{10} includes emission of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} emissions include unpaved road dust, smoke from wood stoves, construction dust, open burning of vegetation, and airborne salts and other particulate matter naturally generated by ocean surf.

Ozone is not emitted directly into the air, but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, Reactive Organic gases (ROG) and Oxides of Nitrogen (NOx), react in the atmosphere in the presence of sunlight to form ozone.

For construction emissions, the SLO County APCD requires modeling of emissions to compare to significance thresholds provided by the air district. Construction emissions were estimated using the Road Construction Emissions Model (RCEM) (http://www.airquality.org/ceqa/, Version 9.0.0) developed by the Sacramento Metropolitan Air Quality Management District for roadway and bridge projects. While the RCEM model was developed for Sacramento conditions in terms of fleet emission factors, silt loading, and other model assumptions, it is considered adequate for estimating road construction emissions by the San Joaquin Valley Air Pollution Control District (under its Indirect Source regulations) and the South Coast Air Quality Management District (in its CEQA guidance) and is used for that purpose in this Project analysis (also see Appendix C – RCEM Modeling Information and Results). Operational emissions are addressed qualitatively.

a) Conflict with or obstruct implementation of the applicable air quality plan? (No Impact)

This impact relates to consistency with the adopted attainment plan, which is the 2001 Clean Air Plan (CAP) for San Luis Obispo County. Per the SLO County APCD, CAP consistency analysis is generally required for a Program Level Environmental Impact Report (EIR), and may be necessary for a Project Level EIR, depending on the Project being

considered. Examples of projects and programs requiring a consistency analysis include: General Plan Updates and Amendments, Specific Plans, Area Plans, large residential developments and large commercial or industrial developments.

In accordance with the SLO County APCD's guidance, consistency with the CAP is evaluated by the following questions (SLO County APCD 2022):

1. *Are the population projections used in the plan or project equal to or less than those used in the CAP (chapter 2) for the same area?*
   Note: 2050 Regional Growth Forecast population data should be used in place of population projections provided in the 2001 Clean Air Plan. Use medium scenario figures 116 and 118.
2. *Is rate of increase in vehicle trips and miles traveled less than or equal to the rate of population growth for the same area?*
3. *Have all applicable land use and transportation control measures (TCMs) from the CAP been included in the plan or project to the maximum extent feasible?*

The Project is a small bridge replacement, and would not result in an increase in population, directly or indirectly, would not increase vehicle trips or miles traveled, and no land use and transportation control measures from the CAP are applicable. Therefore, the Project is consistent with all three criteria listed above, and would not conflict with the CAP. No impact would occur.

b) Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? (Less Than Significant Impact)

This impact is related to regional criteria pollutant impacts. As identified above, SLO County is designated nonattainment of the State's PM_{10} and 1 and 8-hour ozone standards. The Project Area is designated attainment for all other State and federal standards. Potential impacts of concern will be exceedances of State or federal standards for PM_{10}.and Ozone. Localized PM_{10} is of concern during construction because of the potential to emit fugitive dust during earth-disturbing activities.

Construction

The Project would include clearing and grubbing, grading, and paving activity to replace the bridge and gate. Generally, the most substantial air pollutant emissions would be dust generated from site clearing and grubbing, and grading. If uncontrolled, these emissions could lead to both health and nuisance impacts. Construction activities would also temporarily generate emissions of equipment exhaust and other air contaminants.

The SLO County APCD has adopted daily and quarterly thresholds of significance for ozone precursors (ROG and Nox), Diesel Particulate Matter (DPM), and fugitive PM_{10} (fugitive dust; SLO County APCD 2012, 2017). Thresholds Construction is anticipated to begin in 2023 and require approximately 6-9 months to complete. Emissions were estimated using SMAQMD's RCEM version 9.0.0 and materials import/export volumes provided by the Project's Design Team. The emissions presented are based on the best information available at the time of calculations. The daily emissions represent the peak daily construction emissions that would be generated. The quarterly emissions represent total tons for the highest-emissions quarter modeled. Emissions output is provided in Appendix C.

Table 3.3-1 summarizes daily construction-related emissions for the Project. Table 3.3-2 summarizes quarterly construction-related emissions for the Project. As shown in the tables, the Project's construction emissions would not exceed the daily or quarterly thresholds of significance. Therefore, the Project's construction emissions are considered to have a less than significant impact.

Table 3.3-1 Daily Construction Emissions Estimates

Parameter	Maximum Daily Emissions (Lbs)		
	ROG + Nox	DPM	Fugitive PM_{10} (Dust)
Project Construction	87.77	3.3	1.6
SLO County APCD Daily Threshold	137	7	N/A
Significant Impact?	No	No	N/A

Table 3.3-2 Quarterly Construction Emissions Estimates

Parameter	Average Quarterly Emissions (tons)		
	ROG + Nox	DPM	Fugitive PM_{10} (Dust)
Total Project Construction (6 months)	3.98	0.15	0.09
Average Quarterly Project Construction Emissions	1.99	0.08	0.05
SLO County APCD Quarterly Threshold (Tier 1)	2.5	0.13	2.5
Significant Impact?	No	No	No

Operation

Following construction, the Project would not include any stationary sources of air emissions. As a bridge replacement Project, the proposed Project would not generate new vehicle trips. As detailed in Section 3.17, Transportation, Impact b, the Project does not include any component that could be characterized as resulting in a potential increase to VMT.

Vehicle trips associated with operation and maintenance of the proposed Project would include maintenance and monitoring as described in the Project Description and would be consistent with the existing maintenance and monitoring of the existing roadway and associated facilities. The Project would not result in long-term operational emissions of criteria air pollutants above existing conditions. Therefore, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment. The Project's operation would result in no impact.

c) Expose sensitive receptors to substantial pollutant concentrations? (Less than Significant Impact)

Activities occurring near sensitive receptors should receive a higher level of preventative planning. Sensitive receptors include school-aged children (schools, daycare, playgrounds), the elderly (retirement community, nursing homes), the infirm (medical facilities/offices), and those who exercise outdoors regularly (public and private exercise facilities, parks). There are two sensitive receptors within 1000 feet of the Project Area, Grizzly Charter School (approximately 400 feet) and the athletic fields for Cuesta College (approximately 1000 feet).

Diesel Particulate Matter

Construction equipment and heavy-duty truck traffic generate diesel particulate matter (DPM) exhaust, which is a known toxic air contaminant. DPM from equipment exhaust pose potential health impacts to nearby receptors if those receptors have prolonged exposure to substantial emissions. As required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), construction contractors would be required to minimize idling times for trucks and equipment to five minutes, as well as to ensure that construction equipment is maintained in accordance with manufacturer's specifications. Given the limited daily activity for construction, the construction duration of 6-9 months, the distance from the Project Area to the residence, prolonged exposure of sensitive receptors to substantial pollutant concentrations would not occur. As show in Impact b, above, construction of the Project would not exceed the SLO County APCD's adopted daily or quarterly thresholds for DPM. The impact would be less than significant.

Asbestos

Asbestos is a common name for a group of naturally occurring fibrous silicate minerals that are made up of thin, but strong, durable fibers. Asbestos is a known carcinogen and presents a public health hazard if it is present in the friable (easily crumbled) form.

The potential sources for exposure to asbestos are from naturally occurring asbestos (NOA) from rocks underlaying the Project Area and asbestos containing materials (ACM) from the existing bridge. Asbestos imbedded within construction materials, components, and rock are inert and do not pose a health hazard; however, once they are disturbed, through physical contact such as land grading or building renovation and demolition activities, asbestos fibers may be rendered airborne (SLO County APCD 2022c).

The Hazardous Materials Assessment Report (GHD 2022a) performed for the Project Area did not identify ACM on the bridge and therefore no impact from ACM would occur.

The potential to encounter naturally occurring asbestos during construction was analyzed by reviewing published geologic maps and reviewing soil and rock types encountered in soil borings advanced at the Project Area. The Project is in area on the SLO County APCD NOA map (SLO County APCD 2022b), and therefore must comply with the applicable sections in the NOA Air Toxics Control Measure (ATCM) as discussed in Section 1.9, Other Requirements and Considerations. With implementation of these requirements, the potential exposure to asbestos would be minimized and the impact would be less than significant.

Valley Fever

Valley Fever (Coccidioidomycosis) is a disease caused by a fungus in the soil throughout SLO County. When soil is disturbed by any variety of factors (such as construction, wind, etc.) fungal spore can drift into the air, inhaled by people and animals, infect the lungs, and spread to other parts of the body. The spores can infect lungs, and in some cases spread to other parts of the body. In less than 1% of cases, Valley Fever can be fatal.

According to the SLO County Public Health Department, people can get Valley Fever anywhere in San Luis Obispo County. More cases occur in the north and east parts of the county, where conditions are often more dusty and windy. Low rates in an area do not mean there is no risk. Dust control measures laid out in Section 1.9, Other Requirements and Considerations, are required to comply with the SLO County APCD's implementation of California Air Resources Board's NOA Air Toxics Control Measure (ATCM). Compliance with this regulation will minimize potential exposure to Valley Fever spores and the impact is less than significant.

Lead

The Hazardous Materials Assessment Report (GHD 2022a) performed for the Project Area registered lead levels as "nondetect" and therefore no impact from airborne lead would occur.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less Than Significant Impact)

Implementation of the Project would not result in major sources of odor. The Project type is not one of the common types of facilities known to produce odors (i.e., landfill, coffee roaster, wastewater treatment facility, etc.). Minor odors from the use of equipment during construction activities would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. In addition, operation of the Project would not result in locating sensitive receptors near an existing odor source. Thus, the Project would not create objectionable odors affecting a substantial number of people. The impact would be less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		X		
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?		X		
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

The proposed Project Area is within the main cantonment of Camp San Luis Obispo which is a developed area with various military and administrative buildings. The proposed Project objective is the removal and replacement of a vehicular gate and a vehicular bridge (Bridge 3). The existing bridge spans Dairy Creek (a water of the U.S.) and associated riparian habitat. Dairy Creek, along with the bank and upland areas, provides habitat for the federally threatened California red-legged frog (CRLF).

A Biological Resources Report (BRR) for the Camp San Luis Obispo Vehicular Bridge 3 Replacement Project (Project BRR) was prepared by GHD in January 2022 to investigate and determine if sensitive biological resources, including sensitive plant and wildlife species and their habitat, may occur within the footprint or vicinity of the proposed Project. Species listed as endangered or threatened under the federal or state Endangered Species Act or their designated critical habitat, as well as California special status species and habitats, were the primary focus of the BRR. The purpose of the BRR is to inform CEQA analysis and Project permit applications. Much of the impact analysis below was based on findings sourced from the Project BRR.

Anticipated Impacts relating to the implementation of the proposed Project include vegetation removal and tree trimming, removal of riparian habitat surrounding the bridge, increased potential for runoff and sedimentation during construction, and increased noise impacts during construction.

With inclusion of mitigation measures, impacts to biological resources are expected to be avoided, minimized, or reduced to a less than significant impact.

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as 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? (Less than Significant with Mitigation)

There is one (1) special status mammal, ten (10) special status birds, numerous common nesting birds protected by the Migratory Bird Act, one (1) special status reptile, two (2) special status amphibians, one (1) special status fish, and two (2) special status insects that have a moderate or high potential to occur within or directly adjacent to the proposed Project Area.

Special status plant and wildlife species have the potential to be adversely affected by the proposed Project due to ground disturbance and vegetation removal, a temporary increase in noise during construction, increased potential for runoff and sedimentation during construction, temporary and permanent habitat displacement, and/or loss of habitat.

Mammals

The Pallid Bat (*Antrozous pallidus*) is a CDFW Species of Special Concern and only has moderate potential to occur within the Project Area. There are no threatened or endangered mammal species that are known to occur within or adjacent to the Project Area. The Project Area may provide suitable roosting (e.g., bridge) and foraging habitat (e.g., along Dairy and Chorro Creeks) for this species. No evidence of bat roosting (e.g., pellets, urine staining) was observed during the November 2021 site visit). If special status bats are present in the Project Area during construction activities, potential Project-related impacts to these species (if any) would be avoided and minimized through the implementation of mitigation measure BIO-4: Protect Special Status Bats. Measures to protect special status bats include the installation of bat exclusion devices at the bridge, focused bat surveys conducted by a qualified bat biologist, verification of roosting bats, and if roosting bats are identified, and flushing of bats is necessary, it shall be supervised by a qualified biologist. With the inclusion of BIO-4, impacts to special status bat species would be avoided and reduced to a less than significant level (also see Appendix D – Biological Resources Report).

Birds

Special status and protected bird species that are present at the Project Area include Cooper's Hawk (*Accipiter cooperii*), Tricolored Blackbird (*Agelaius tricolor*), Ferruginous Hawk (*Buteo regalis*), White-tailed Kite (*Elanus leucurus*), California Horned Lark (*Eremophila alpestris actia*), and Merlin (*Falco columbarius*). Tricolored Blackbird is the only state threatened species that is present near the Project Area. There are several records of this species within Camp SLO and the surrounding 0.5 miles as recently as 2019, including documented nesting (Appendix D). No suitable nesting habitat (e.g., emergent vegetation near open water) is present within the Project Area, however, suitable foraging habitat is present within Dairy and Chorro Creeks near the Project Area. Cooper's Hawk, Ferruginous Hawk, White-tailed Kite, California Horned Lark, and Merilin are all present within Camp SLO, however, no occurrences are within the Project Area. Suitable to marginal foraging habitat for these special status bird species exists within the Project Area, however, no suitable nesting habitat exists (Appendix D). As such, impacts to these special status bird species as a result of the proposed bridge replacement are not anticipated. Should any of these special status birds or nests be observed in or adjacent to the Project Area, pre-construction surveys may be necessary to check for nesting activity of native birds and to evaluate the Project Area for presence of raptors and special status bird species.

Bird species that have moderate potential to occur at the Project Area include the Grasshopper Sparrow (*Ammodramus savannarum*), Great Blue Heron (*Ardea herodias*), Prairie Falcon (*Falco mexicanus*), and Loggerhead Shrike (*Lanius ludovicianus*). Foraging habitat to support the Great Blue Heron and Prairie Falcon may exist within/near the Project Area, however, no nesting habitat exists within the Project Area and the Project Area is outside the known breeding range for the Prairie Falcon (Appendix D). There may be suitable foraging habitat and potential nesting habitat within/near the Project Area for the Grasshopper Sparrow and Loggerhead Shrike. If special status birds are present in the Project Area during construction activities, the species may be impacted by removal of nesting habitat, elevated levels of noise, and anthropogenic disturbance. Potential Project-related impacts to these species (if any) would be avoided through the implementation of measures described further in BIO-5: Protect Special Status,

Migratory and Nesting Birds. With the inclusion of mitigation measure BIO-5, potential impacts to special status nesting birds, migratory or common nesting birds will either be avoided or reduced to a less-than-significant level.

Reptiles

One special status reptile, the Western Pond Turtle (*Emys marmorata*), was found to have a moderate potential to occur within/near the Project Area. Construction has the potential to crush or bury reptile species, and/or adversely affect water quality (habitat). Although habitat quality within the Project Area is low compared to nearby suitable habitat, the Western Pond Turtle may also utilize upland habitats near the Project Area. Potential Project-related impacts to these species (if any) would be avoided and minimized to less than significant through the implementation of measures described further in BIO-7: Protect Special Status Reptiles.

Amphibians

The Project Area may provide suitable habitat for the federally threatened CRLF. The CRLF has been observed downstream of the confluence of Dairy and Chorro Creeks (USFWS 2015) and as such, formal or informal consultation with USFWS is anticipated. The habitat within the Project Area would be considered of marginal value to the CRLF given the typical low water levels and lack of ("deep pools with dense stands of overhanging willows and an intermixed fringe of cattails are considered optimal habitat;" USFWS 2015). Nonetheless, conservation measures will be implemented to minimize potential adverse effects to this species with the use of mitigation measure BIO-6: Protect California Red-Legged Frog and Special Status Amphibians. Mitigation measures for the CRLF include pre-construction surveys, seasonal and construction restrictions, environmental awareness briefings prior to the start of construction activities (Appendix D). The Project Area overlaps a large geographically unspecific block of federally designated critical habitat for the CRLF. However, Camp SLO was excluded from this designation (USFWS 2015). Therefore, no impacts are anticipated.

Coast Range Newt (*Taricha torosa*) has moderate potential to occur within/near the Project Area. The closest known record of this species is approximately 2 miles from the Project Area and suitable breeding habitat is present within the Project Area. To reduce potential impacts on this species as well as other special status amphibians, mitigation measure BIO-6: Protect California Red-Legged Frog and Special Status Amphibians, will be implemented. Please reference the Project BRR (Appendix D) for more information on mitigation measures for protected species. Measures to protect special status amphibians include pre-construction surveys, environmental awareness briefing, exclusion fencing, and construction as well as seasonal restrictions. As such, impacts (if any) are anticipated to be less than significant.

Fish

Additionally, the Project has the potential to impact the South-Central California Coast Distinct Population Segment (DPS) of Steelhead (*Oncorhynchus mykiss irideus*). Steelhead populations that are known to occur in Dairy and Chorro Creeks. Though instream work will occur on the bridge piers, the work will be minimal as the Project will be replacing the existing infrastructure and effects are expected to be of short duration associated with potential sedimentation during construction. Conservation measures, as outlined in mitigation measure BIO-8: Protect Special Status Fish, include temporary dewatering, fish relocation (where applicable), best management practices (BMPs) and seasonal work windows will be implemented to minimize potential adverse effects to the aquatic habitat of Dairy Creek and Steelhead (CAARNG 2022; 2002). With the inclusion of BIO-8, potential impacts to special status fish will either be avoided or reduced to less than significant. The presence of Steelhead has been documented at various locations at Camp SLO, including Dairy Creek (Appendix D). As such, formal or informal consultation with NMFS is anticipated. However, Camp SLO has is exempt from critical habitat designation for Steelhead (CAARNG 2022).

Insects

Potential impacts to special status insects, including the Crotch Bumble Bee and Obscure Bumble Bee, could occur if considerable areas of nesting or foraging habitat (large areas of nectar plants) are cleared/grubbed or excavated. This level of disturbance is not proposed and impacts to special status insect species are expected to be less than significant.

Substantial adverse effects from the Project, either directly or through habitat modifications, on any species identified as 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 are expected to be reduced to less than significant with the following mitigation incorporation:

- Measure BIO-1: Best Management Practices to Protect Dairy Creek
- Measure BIO-2: Environmental Awareness Briefings
- Measure BIO-3: Protect and Restore Riparian Habitat
- Measure BIO-4: Protect Special Status Bats
- Measure BIO-5: Protect Special Status, Migratory and Nesting Birds
- Measure BIO-6: Protect California Red-legged Frog and Special Status Amphibians
- Measure BIO-7: Protect Special Status Reptiles
- Measure BIO-8: Protect Special Status Fish

Mitigation measures are detailed below in Section 3.4.3 Mitigation Measures.

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

The riparian vegetation along Dairy Creek within the Project Area is considered a sensitive natural community (SNC). SNCs, other than riparian habitat, do not occur at the Project Area and do not need to be addressed herein. Riparian habitat may be adversely affected by the proposed Project due to ground disturbance and vegetation removal.

The riparian corridor at Dairy and Chorro Creeks are heavily sloped and contain a mix of woodland trees and coastal scrub species. The banks are characterized predominately by Arroyo Willows (*Salix lasiolepis*) and Poison Oak (*Toxicodendron diversilobum*). Other woodland species that are known to occur along the riparian corridors at Camp SLO include Coast Live Oak (*Quercus agrifolia*), Red Willows (*Salix laevigata*), Fremont Cottonwood (*Populus fremontii*), and California Sycamore (*Platanus racemosa*). The understory of the creeks is comprised of shrub life including rushes (*Juncus sp.)* Cape Ivy (*Delairea ordorata*), Periwinkle (*Vinca major*), and cattails (*Typha spp*.; CAARNG 2022). Removal and trimming of these species may be necessary during construction activities. Loss of riparian habitat will be limited to the extent feasible to minimize disturbance and protect the upland vegetation along the creeks. Vegetation removal will be most likely limited to minor roadside vegetation trimming and mowing and minimal removal of brush and small trees (< 12-inch diameter) within the creek channel.

Mitigation measures will be implemented to reduce impacts to the riparian corridor due to vegetation removal and other soil-disturbing construction activities at Dairy and Chorro Creeks. Namely, a Vegetation Management Plan (Plan) will be prepared to identify vegetation to be removed and indicate the types and locations of the replacement vegetation, which will revegetate the Project Area upon completion of the Project. The Plan would utilize native riparian and upland vegetation, detail restoration techniques, outline the time of year the work would be completed and provide criteria for completion of the restoration efforts. Success of revegetation plantings shall be determined by an 85% survival rate at the end of monitoring. Objectives of the Plan would also include replacing lost or damaged riparian vegetation at a three-to-one ratio (3:1) using only native vegetation and trees for revegetation efforts and avoid the removal of large trees including oaks, willows, and sycamores along the banks of Dairy and Chorro Creeks.

Substantial adverse effects from the Project on any riparian habitat identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service are expected to be reduced to less than significant with incorporation of mitigation measure BIO-3: Protect and Restore Riparian Habitat.

Mitigation measures are detailed below in Section 3.4.3 Mitigation Measures.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Less than Significant with Mitigation)

Dairy Creek was the only aquatic feature observed on-site and its ordinary high water mark was delineated in the field. Dairy Creek is a Waters of the United States as defined by Section 404 of the CWA. No other wetlands were observed within the Project Area. Dairy Creek, a First Order Stream (First Order streams are perennial streams that carry water throughout the year with no permanently flowing tributaries), was observed to have a cobblestone substrate that did not contain water directly beneath the bridge at the time of the field survey. North and South of the bridge, water less than 8-inches in depth was observed. Dairy Creek was not flowing at the time of the field survey and likely only flows beneath the bridge following significant rain events.

The proposed Project includes demolition and construction of a new bridge spanning Dairy Creek. Proposed In-stream work related activities include cutting and removing existing bridge pilings at the mudline of the stream bed. The USACE does not require that pilings be analyzed for impacts on Waters of the U.S. Demolition and construction activities may result in discharge of debris and dust entering the waterway. In-water construction would occur within the regulated in-water work period, typically June 15 through October 31. However, if needed during construction, stream flow would be temporarily diverted utilizing coffer dams and/or other similar structures.

Substantial adverse effects from the Project on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means are expected to be reduced to less than significant with the following mitigation incorporation: BIO-1: Best Management Practices to Protect Dairy Creek.

Mitigation measures are detailed below in Section 3.4.3 Mitigation Measures.

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

Wildlife access into and out of the Project Area is possible via the nearby Dairy and Chorro Creek riparian corridors. No continuous barriers to terrestrial wildlife movement are anticipated and no migration routes would be impacted by implantation of the proposed Project. The proposed Project would temporarily disturb riparian and aquatic habitats used by local wildlife species during construction, however, the temporary disturbance would not limit fish or wildlife movement through the Project Area. Impacts to aquatic and riparian habitat connectivity are expected to be minimal and of short duration.

With the exception of the south-central California coast DPS of Steelhead, the Project is expected to have a less than significant impact on the movement of any native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, and use of native wildlife nursery sites. Conservation measures, including Best Management Practices (BMPs) and seasonal work windows, should be implemented to minimize potential adverse effects to the Steelhead, as outlined in the Biological Resources Report.

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

The proposed Project will include the trimming or removal of riparian tree species less than 12 inches in diameter at breast height (dbh). Per the Camp SLO Integrated Natural Resources Management Plan (IRMP), riparian tree removal requires a 3:1 replacement ratio.

The Project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, with mitigation incorporation according to local policies.

f) Would the project conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (No Impact)

The proposed Project is not within and would have no impact on any adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation

Mitigation Measure BIO-1: Best Management Practices to Protect Dairy Creek

The following activities will be implemented during construction:

- If water is present in within the Project Area (i.e., channel of Dairy Creek) at the time of construction, a dewatering plan will be developed for review and acceptance by regulatory agencies at least 15 days prior to the onset of construction.
- No excavation or equipment operation will occur where flowing water is present.
- No construction activities shall occur during or within 24-hours following a rain event.
- Suitable BMPs, such as silt fences, fiber rolls, or earthen berms would be installed or constructed between work zones and staging and temporary material stockpile areas, and any watercourse to collect loose debris and to intercept sediment during rain events. These structures shall be installed pursuant to regulatory specifications prior to pending rain events (trigger = greater than 50 percent possibility of rain within the next 24 hours), as forecasted by the National Weather Service. Any sediment caught by the fence or rolls would be removed before the fence/rolls are pulled.
- Temporary spoils or construction material sites shall be located so as to not drain directly into ditches, streams, or other waterbodies. If a spoils/construction materials site has the potential to drain into a surface water feature, a retention basin, berm(s), or other catchment device shall be constructed or installed to intercept silt-laden storm runoff before it reaches any waterbody. Areas disturbed by construction and temporary storage sites shall be graded, seeded, and mulched upon completion of construction, whether or not they pose the risk of erosion and the off-site release of fine sediment.
- All construction debris shall be removed from the site in a timely manner and disposed of appropriately.
- All exposed mineral soil, or stockpiles to remain on-site through the wet season shall be protected from erosion associated with wind and rain (e.g., silt fences, straw bales, straw mulch, and tarps).
- Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e., USACE, CCRWQCB, and CDFW) shall be implemented and completed pursuant to established criteria and/or schedules. All measures contained in Project permits or associated with agency approvals shall be implemented in a timely manner.
- Refueling of equipment will not occur within 100 feet of waters or wetlands.
- Equipment shall be cleaned of deleterious materials before being delivered to the job site. Equipment shall be staged and materials shall be stockpiled outside of riparian habitat.
- Impacts to herbaceous cover shall be offset by reseeding any unvegetated and impacted areas with a suitable seed mixture post-construction.
- Any construction equipment operating adjacent to or over a stream shall be inspected daily for leaks. Any oil, fuel, and grease residue that has the potential to fall from machinery shall be removed and properly disposed of.
- All heavy equipment shall be inspected and cleaned at an off-site location prior to delivery to the work site.

- Equipment parking, maintenance, and fueling shall occur at designated upland staging areas only, with all staging locations spatially isolated from watercourses.
- Light equipment such as generators, welders, or pumps, or any heavy equipment including water drafting trucks, would use drip pans or other devices (i.e., absorbent blankets, sheet barriers, or other materials) to avoid contamination of surface waters or soils located adjacent to waterbodies.
- Equipment shall be inspected for leaks before each shift, throughout the shift, and at end-of shift each day.
- All fueling, lubing, and equipment maintenance shall be performed in an environmentally responsible manner.
- All activities relative to fueling, lubing, and maintenance shall be performed in designated staging areas unless equipment has been immobilized due to mechanical failure. In those instances, every effort shall be made to safeguard against and control the release of contaminants as repairs are being made.
- Fuels and lubricants shall not be stored on-site after-hours or on weekends or holidays.
- Maintenance involving the removal or repair of hydraulic cylinders, hoses, or of any reservoirs containing TPH or other deleterious substances, shall be performed over impermeable fabric or other surfaces resistant to such substances. Fueling trucks shall at all times be equipped with sealed spill kits.
- Two sealed 5-gallon spill kits shall be kept on-site through the course of the construction. Kits that are used shall be replaced in-kind with new sealed kits. Unsealed spill kits shall be removed from the site as they are oftentimes missing key components necessary during emergency spill situations.
- If work is to occur over open water or over the wetted portion of the river, an oil boom capable of spanning the wetted portion of said waterbody shall be available each day that such work is to be performed. The oil boom shall be deployed downstream of the Proposed Action, and full width of the wetted channel each time, and for the duration of time equipment is required to work over the wetted channel. Floating absorbent pads, designed specifically to recover TPH from the surface of water, shall be available each day work is to occur over said waterbody. All employees shall know the on-site location of such devices. Furthermore, each employee shall be trained in the functional limitations of such devices, as well as trained in the proper and expeditious deployment of such devices. Pre-construction training is paramount to ensuring rapid containment, recovery, and storage of substances known to be harmful to biological resources and water quality. Employees replacing those initially trained, or any additional employees new to the site shall be fully trained in the use of emergency BMPs as a prerequisite to employment.
- In the event of a spill, the local CDFW office shall be notified and consulted regarding clean-up procedures. Large spills should also be reported to the Office of Spill Prevention and Response, 1700 K Street, Suite 250 Sacramento, CA 95811, or report oil spills to 800-852- 7550 or 800-OILS-911.

Mitigation Measure BIO-2: Environmental Awareness Briefings

Prior to the start of work, all construction workers will be briefed on the biology and life history of federally-listed (specifically California Red-legged Frog and Steelhead), state-listed, and state special status wildlife species potentially present in the Project Area. The training will include species identification, avoidance and minimization measures, communication protocols, and consequences of non-compliance.

Mitigation Measure BIO-3: Protect and Restore Riparian Habitat

- Removal of riparian vegetation shall be limited to the smallest footprint necessary to install the replacement bridge. Restoration of riparian habitat shall occur at a location along Dairy Creek, or other suitable location within the same watershed, that could benefit from a “lift” in habitat through either native tree and riparian understory planting, removal of invasives, removal of abandon fill or man-made

debris, or some combination thereof. This will be documented in a Riparian Vegetation Management Plan.

- A Riparian Vegetation Management Plan (Plan) shall be prepared to identify trees and other vegetation that will be removed and to identify the types and locations of replacement riparian vegetation that will be planted following bridge construction.
- The Plan also will detail restoration techniques, time of year the work will be done, monitoring activities and duration, success criteria for completion, and remedial actions if the success criteria were not achieved. Revegetation will be undertaken both to replace removed vegetation and to reduce the potential for streambank erosion.
- Objectives to protect will include protecting existing riparian vegetation to the maximum extent possible, and avoiding removal of oak, willow, and western sycamore from the banks of Dairy Creek. Objectives to restore will include replacing lost or damaged riparian vegetation at a three-to-one ratio (e.g., for every tree removed, three replacement trees would be planted), using native vegetation for plantings, and restoring areas that have previously been filled.
- Success of revegetation plantings shall be determined by an 85% survival rate at the end of monitoring. Should the monitoring results indicate that the goals of the protection measures are not being met, those measures will be modified, and monitoring will continue until the success criteria is met.

Mitigation Measure BIO-4: Protect Special Status Bats

– Remove confirmed or presumed-occupied bat roost habitat during seasonal periods of bat activity (when bats are volant, i.e., able to leave roosts) between March 1 and April 15 to avoid hibernating or September 1 and October 15 when young are capable of flying, and when evening temps rise above approximately 45 degrees F, and when no rainfall greater than ½ inches has occurred in the last 24 hours. Prior to demolition:

  - A qualified bat biologist shall verify if the bridge is being used by roosting bats. If there are no roosting bats, demolition can proceed without restrictions.
  - If roosting bats are found, and flushing of bats is necessary, it shall be supervised by a qualified biologist. When flushing bats structures shall be removed carefully to avoid harming individuals, and torpid bats given time to completely arouse and fly away. The bridge may need to be demolished using a stepped process where outer layers are removed on the first day, allowing bats to leave at night and find other roosting areas, and additional bridge sections removed on subsequent days until all bats have left the structure.

– If trees or structures (e.g., bridge) cannot be removed during the volant period, i.e., Project activities occur during the bat maternity season which generally occur April 16 through August 30, a qualified bat biologist shall conduct surveys within suitable habitat, i.e., the bridge, for special status bats. Survey methodology shall include visual examination with binoculars or other appropriate methods.

  - Surveys shall be conducted by a qualified biologist prior to construction in any areas where potential maternity roosts may be disturbed/removed. Surveys shall include a visual inspection of the impact area and any large trees/snags with cavities or loose bark or crevices within infrastructure. If the presence of a maternity roost is confirmed, an appropriate buffer distance would be established in consultation with the CDFW to ensure that construction noise would remain below disturbance thresholds for bats.
  - Prior to March 1st, a qualified bat biologist can be employed to install bat exclusion devices at the bridge, such as nets, plastic drapes, or one-way tunnels, that allow bats to leave the roost but that do not permit their return. These devices would be installed by the end of February. Conduct exclusion activities at night and monitor the bridges to ensure that no bats return and roost in the bridges during the exclusion period and prior to the start of construction.

Mitigation Measure BIO-5: Protect Special Status, Migratory and Nesting Birds

Ground disturbance and vegetation clearing shall be conducted, if possible, during the fall and/or winter months and outside of the avian nesting season (which is generally assumed to occur between March 15 – August 15) to avoid any direct effects to special status and protected birds. If ground disturbance or vegetation clearing cannot be confined to the fall and/or winter outside of the nesting season, a qualified ornithologist shall conduct pre-construction surveys within the vicinity of the BSA, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special status bird species. The ornithologist shall conduct at minimum a one-day preconstruction survey within the seven-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the nesting season, a qualified ornithologist shall conduct a supplemental avian pre-construction survey before Project work is reinitiated.

If active nests are detected within the construction footprint or within 500 feet of construction activities, the ornithologist shall flag a buffer around each nest. Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged or nesting activity has ceased. If nests are documented outside of the construction (disturbance) footprint, but within 500 feet of the construction area, buffers would be implemented as needed. In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the CDFW and, if applicable, with the USFWS. Buffer sizes would take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds.

If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

Mitigation Measure BIO-6: Protect California Red-legged Frog and Special Status Amphibians

Environmental Awareness Briefings. As detailed in Measure BIO-2, prior to construction or related activities in areas where the California Red-legged Frog and Coast Range Newt are likely to occur, environmental staff will brief contractors and other participants about its potential presence. The briefings will include a flyer with photos and a description of the species and its habitat, the general provisions of the ESA and the necessity to comply, and the measures that are being implemented to conserve the species as they relate to the activity.

Pre-construction surveys. If work is scheduled to occur in aquatic or riparian habitat of the California Red-legged Frog and the Coast Range Newt, including but not limited to the ephemeral stream at the western limit of the Project Area, a qualified biologist will conduct a pre-construction survey prior to the start of work in that area. The survey will include one night survey on the evening that precedes the start of work and one daytime survey completed the morning that work is scheduled to begin. If Project activities cease for more than three days, a qualified biologist will conduct another survey prior to project activities resuming. The survey will include inspection of small mammal or other burrows within the potential disturbance area, if any

are present. If a California Red-legged Frog is found, work will not begin in that area and the frog will be allowed to leave the area on its own. If the frog does not leave the area within 24 hours, the USFWS Ventura Field Office will be contacted for guidance on how to proceed. In the event that a Coast Range Newt is observed in an active construction zone, the contractor shall halt construction activities in the immediate area where observed and the newt shall be moved to a safe location in similar habitat outside of the construction zone.

Construction Restrictions. Construction activities within riparian, aquatic, or wetland area will be limited to the minimum area and duration required to meet the Project design requirements. Seasonal Restrictions. Construction will not occur in wetland areas during the breeding season (generally November through April) of the California Red-legged Frog.

Hazardous Materials. All hazardous materials will be stored in designated locations at least 100 feet from wetland areas, along with appropriate materials for containing accidental spills. Any hazardous spill will be cleaned up immediately in accordance with established guidelines. Decontamination for Chytrid Fungus and Other Pathogens. Any equipment (boots, nets, shovels) that has been used off of the installation will be decontaminated prior to conducting activities in riparian or wetland habitat for the California Red-legged Frog. Decontamination will comprise the equipment being scrubbed with a 75 percent ethanol solution or bleach solution (0.5- 1.0 cup/gallon of water) and then rinsed with water. Decontamination will not occur within 100 feet of wetlands.

Project Area. Prior to commencing construction in or near habitat of the California Red-legged Frog, the Project Area will be clearly delineated with stakes or brightly colored flags so that equipment is confined. The Project Area will comprise the smallest practical space. Erosion Control. Erosion control and other best management practices will be implemented in areas where exposed soils could potentially lead to sedimentation in habitat of the California Red-legged Frog.

Trash Removal. All food related trash will be stored in closed containers and removed from the Project Area at the end of the day. The area will be kept clean.

Exclusion Fencing. Silt fencing or exclusion fencing will be maintained around ground disturbance areas during construction activities. The intent of the fencing is to prevent California Red-legged Frogs from entering the construction area. The fencing will be inspected as part of the pre-construction day survey and periodically thereafter to ensure that there are no gaps which might allow frogs to pass.

Mitigation Measure BIO-7: Protect Special Status Reptiles

No more than one week prior to commencement of ground disturbance within 50 feet of suitable aquatic turtle habitat (e.g., creeks, riparian areas), a qualified biologist shall perform a preconstruction survey for Western Pond Turtles and shall relocate any individuals or eggs that occur within the work-impact zone to nearby suitable habitat.

In the event that a Western Pond Turtle (or other special status reptile) is observed in an active construction zone, the contractor shall halt construction activities in the immediate area where observed and the turtle shall be moved to a safe location in similar habitat outside of the construction zone.

Mitigation Measure BIO-8: Protect Special Status Fish

- All instream work will be completed during the regulated in-water work window, typically mid-June through late October depending on rainfall. Limit instream work between mid-June through late October to reduce potential impacts to Steelhead spawning and migration.
- A debris net will be installed if flowing water is present in the project area.
- CMD shall ensure that any vibratory pile driving will adhere to a minimum setback of ten feet from any wetted aquatic habitat (Dairy Creek) to avoid noise and vibration-related impacts to special status fish.

- Implementation of BMPs to reduce erosion, dust, and potential for polluted run-off into Dairy Creek would be implemented to minimize impacts to aquatic resources. Measures may include silt fences, sediment traps, and other erosion control devices during Project construction to promote bank stabilization and minimize impacts to special status fish species associated with runoff and sedimentation.
- Dairy Creek is wetted at the time of construction, temporary dewatering may be necessary to divert stream flow away from the Project Area. Water would be pumped downstream to maintain stream flows at all times downstream during construction. The creek channel and flow regime would be modified in compliance with CDFG and USACE conditions. Upon completion of construction activities, any barriers to flow would be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Impacts to aquatic habitat connectivity are expected to be minimal and of short duration.

3.5 Cultural Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

The following analysis is based on the Cultural Resources Assessment conducted by Rincon Consultants, Inc., for the proposed Project. For this section and in the accompanying Phase I Cultural Resources Report (Rincon Consultants 2023), the study area is termed the Area of Potential Effects or APE. The study assessed the potential for surficial and/or buried archaeological and historical resources in the proposed improvement area through the completion of the following:

– Records and literature search at the Central Coast Information Center (CCIC) of the California Historical Resources Information Center (CHRIS) at the Santa Barbara Museum of Natural History on November 29, 2021;
– Further literature review of publications, files, and maps for ethnographic, historic-era, and prehistoric resources and background information;
– Communication with the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File (conducted on December 23, 2021) and contact information for the appropriate tribal communities; and
– Pedestrian surveys of the Project Area conducted on January 24, 25, and 26 of 2023.

Study results were used as a technical basis for evaluating potential impacts to historic and cultural resources under Section 106 of the National Historic Preservation Act (Section 106) and CEQA. The pedestrian surveys were completed using standard archaeological and architectural field inventory procedures and techniques.

The background and archival research conducted for this assessment identified one built environment resource over 45 years of age in the APE, Bridge 3, which was previously evaluated, along with seven concurrently constructed wooden pony-truss bridges within Camp SLO, and recommended ineligible for listing in the NRHP as it is not considered a historic property for the purposes of Section 106 or a historic resource pursuant to CEQA. The background research conducted for this assessment additionally indicated that Camp SLO was designated as a California Point of Historical Interest (POI) in 1990. According to the California Historical Resource Status Codes, only POIs nominated after December 1997 and recommended for listing in the NRHP or CRHR by the State Historic Resources Commission are considered NRHP and/or CRHR eligible. As it was designated in 1990, Camp SLO does not fit the above-noted criteria and it is therefore not considered a historic property according to Section 106 or a historical resource pursuant to CEQA.

The CHRIS record search identified one archaeological resource, P-40-002754/CA-SLO-2754H, which is located within a portion of the APE. Previously recommended eligible for listing in the NRHP and CRHR, resource P-40-002754/CA-SLO-2754H consists of a low-density historic debris scatter most likely associated with the Hollister Adobe, which is located southwest of the resource outside of the APE. This resource was previously recommended eligible for NRHP and CRHR listing, and it is considered a historic property for the purposes of Section 106 and a historical resource pursuant to CEQA. An Extended Phase I assessment was conducted to determine if the intact deposits associated with P-40-00275/CA-SLO2754H exist within the APE.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? (No Impact)

A Cultural Resources Assessment and Extended Phase I Survey were completed in 2023 by Rincon Consultants (Rincon 2023). No historic resources, properties or structures were identified within one mile of the Project APE. Bridge 3 is over 45 years of age and was previously evaluated as a historic property. However, Bridge 3 was recommended ineligible for listing on NRHP and is not considered a historic resource pursuant to Section 106 and CEQA. Additionally, Camp SLO was designated as a California Point of Historical Interest (POI) in 1990, although only POIs nominated after December 1997 are considered NRHP and/or CRHR eligible. Therefore, construction and operation of the Project would have no effect on historic resources within the Project Area. No impact would result.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Less than Significant with Mitigation)

Rincon conducted an Extended Phase I testing program consisting of the excavation of ten (10) shovel test pits (STPs) to determine if intact deposits associated with P-40-002754/CA-SLO-2754H exist within the APE. The setting of the area is an erosional environment with high likelihood that a depositional environment existed before the construction of the existing bridge. In addition, the archaeological sensitivity of the immediate project area is very high. However, no previously recorded or newly documented archaeological sites were identified in the project area, and it is unlikely that intact materials associated with P-40-002754/CA-SLO-2754H (identified during the records search) remain in the APE.

As intact deposits of the resource may exist outside of the APE, future undertakings that include ground disturbance may require further testing. Results indicate that he proposed Project will not alter, directly or indirectly, any of the characteristics that qualify resource P-40-002754/CA-SLO-2754H for inclusion in the NRHP or CRHR. Therefore, implementation of the proposed Project would not result in an adverse effect to historic properties under Section 106 and potential impacts to historic resources would be less than significant. Although no archaeological resources were observed, in order to provide protection for archaeological resources that may be inadvertently discovered during the course of construction, Mitigation Measure CR-1 and CR-2 would be implemented to establish protocols for inadvertent archaeological discovery.

Mitigation

Implementation of Mitigation Measures CR-1 and CR-2 would reduce the potential impact to archaeological resources by requiring procedures that shall be taken in the event of unanticipated discovery.

Mitigation Measure CR-1: Workers Environmental Awareness Program (WEAP)

A qualified archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archaeology (National Park Service [NPS] 1983) shall conduct a WEAP training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. Archaeological sensitivity training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find. The WEAP training document shall include materials which convey the information noted above, which shall be maintained in an area accessible to all construction personnel so that it may be reviewed regularly by construction staff.

Mitigation Measure CR-2: Unanticipated Discovery of Cultural Resources

In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the resource. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be

eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The City shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

Implementation of Mitigation Measure CR-1 and CR-2 would reduce the potential impacts to a less-than-significant level during construction because a plan would be implemented to address discovery of unanticipated archaeological resources and to preserve and/or record those resources consistent with appropriate laws and requirements.

c) Disturb any human remains, including those interred outside of formal cemeteries? (Less than Significant with Mitigation)

The APE has been previously development and it is unlikely that human remains will be uncovered. While the Archaeological Survey Report did not determine archaeological resources were likely to be present within the APE, inadvertent discovery of human remains may still occur during ground excavation activities. In the event that human remains are encountered during construction, Mitigation Measure CR-3 would be implemented to ensure any potential impact would be less than significant.

Mitigation

Implementation of Mitigation Measure CR-3 would reduce the potential impact to archaeological resources or human remains by requiring procedures that shall be taken in the event of unanticipated discovery.

Mitigation Measure CR-3: Unanticipated Discovery of Human Remains

No human remains are known to be present in the APE. However, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are unexpectedly found, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. Implementation of Mitigation Measure CR-3 would reduce the potential impacts to a less-than-significant level during construction because a plan would be implemented to address discovery of unanticipated human remains and to preserve and/or record those resources consistent with appropriate laws and requirements.

3.6 Energy

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

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? (Less Than Significant Impact)

Construction of the Project would involve a variety of earthwork and construction practices, involving the use of heavy equipment as discussed in Section 3.3 (Air Quality). Construction would require the use of fuels, primarily gas, diesel, and motor oil. Construction emissions were estimated using the Road Construction Emissions Model (RCEM), version 9.0.0 and were estimated to be approximately 634.80 $MTCO_2e$ from all construction activities (Appendix C). Peak travel associated with Project construction would consist of approximately 20 trips (10 round trips) per day for construction workers, and an average 4 trips (2 round trips) per day for materials hauling. Construction equipment would remain staged in the Project Area once mobilized. Excess soils, aggregate road base, RSP, and construction materials would be stored within designated staging areas. Excess materials may be re-used on-site for backfill and finished grading. Excess materials would not be stockpiled on-site once the Project is complete. The contractor would haul additional excess materials off-site for beneficial re-use, recycling, or legal disposal.

Construction would require the use of fossil fuels (primarily gas, diesel, and motor oil) for excavation, grading, and vehicle travel. The precise amount of construction-related energy consumption is uncertain. However, construction would not require a large amount of fuel or energy usage because of the limited extent and nature of the proposed improvements and the minimal number of construction vehicles and equipment, worker trips, and truck trips that would be required for a Project of this small scale. Therefore, Project construction would not encourage activities that would result in the use of large amounts of fuel and energy in a wasteful manner; the impact would be less than significant.

Operation of the Project would include periodic maintenance similar to existing conditions. In the event of storm damage, more significant repairs to the Project may be needed. These activities would generally be supported by vehicles and use of hand-held tools. The use of fossil-fuel powered equipment to support these operational and maintenance activities would be periodic and short-term (occurring intermittently). These activities would not result in a substantial increase in energy use, and would not result in inefficient, wasteful, or unnecessary consumption of fuels or other energy resources.

Operation of the Project would not generate additional vehicle trips nor result in an increase in energy use above existing conditions. The impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (Less Than Significant Impact)

There are no local plans for renewable energy that would apply to the Project Area. Implementation of the Project would not obstruct a state plan for renewable energy. The Project would not conflict with or inhibit the implementation of the State Energy Action Plan, or other State regulations. The Project would not inefficiently utilize energy. The Project would temporarily require the use of equipment to construct the components of the Project; however, these activities would be temporary and would not interfere with the broader energy goals of the State. Operationally, the

Project would not impact operational automobile-related energy consumption. The lighting installed would be similar to bridge lighting elsewhere on the base. The majority of California's energy-related plans are not directly applicable to the Project or its operations; however, the Project complies with those plan requirements that apply. The Project would therefore not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, as no component of the Project would require an energy source, beyond the temporary use of construction equipment. No impact would result.

3.7 Geology and Soils

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii. Strong seismic ground shaking?			X	
iii. Seismic related ground failure, including liquefaction?			X	
iv. Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
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?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

Setting

The Project Area is located in the Coast Ranges geomorphic province. The Project Area is mapped as Jurassic to Cretaceous Franciscan Complex consisting of sandstone with smaller amounts of shale, chert, limestone, and conglomerate. The bridge sites are immediately underlain by artificial fill and alluvial sediments (GHD, 2016).

Based on the results of the subsurface exploration, the subsurface materials generally consisted of fill to depths of approximately 4½ to 21 feet below ground surface underlain by brown, medium dense to dense SAND, stiff to very stiff CLAY and SILT, and dense to very dense GRAVEL, overlying siltstone and claystone to the maximum depth explored of 50 feet.

a.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. (No Impact)

According to the Geotechnical Investigation (GHD, 2016) The nearest active fault to the Project Area is the San Andreas Fault Zone, Cholame-Carrizo section, which is approximately 37 miles to the east. The nearest faults with Late Quaternary and Holocene movement are the Los Osos Fault Zone, Irish Hills section, and the Cambria Fault,

located approximately 2½ miles to the south and 2½ miles to the north respectively. According to the Alquist-Priolo Earthquake Fault Zone Act, the surrounding Project Area is not within a Special Studies Zone. No impact would occur

a. ii, iii, iv) Strong seismic ground shaking or seismic related ground failure, Landslides or otherwise unstable soil? (Less than Significant Impact)

As mentioned above (a.i) The nearest active fault to the Project Area is the San Andreas Fault Zone, Cholame-Carrizo section, which is approximately 37 miles to the east. The nearest faults with Late Quaternary and Holocene movement are the Los Osos Fault Zone, Irish Hills section, and the Cambria Fault, located approximately 2½ miles to the south and 2½ miles to the north respectively. According to the Alquist-Priolo Earthquake Fault Zone Act, the surrounding Project Area is not within a Special Studies Zone. Strong ground shaking at the Project Area should be expected during an earthquake.

The Project would be designed and constructed in conformance with the site-specific recommendations contained in the geotechnical report prepared for the Project, and any subsequent Project-related geotechnical reports. These recommendations are further detailed in Section 1.9. With recommendations from the Geotechnical Report being included, the impact would be less than significant.

Liquefaction can occur when loose to medium dense, granular, saturated soils, incur ground shaking. The soil profile consists of largely medium dense to very dense granular soils. Due to this fact, the potential for soil liquefaction and related settlement at the Project Area to be low (GHD 2016). The impact would be less than significant.

Lateral spreading is caused by the accumulation of incremental displacements that develop within liquefied soil under cyclic loading. Since the Project Area has a low potential for liquefaction (GHD 2016), the impact of lateral spreading is less than significant.

The location of the proposed gates is on a relatively flat land, so there would be no impact from landslides at that location. The proposed bridge would span over moderately steep stream channel slopes. This would make the potential for landslides or failure of natural slopes potentially significant. However, the Project would be designed and constructed in conformance with the site-specific recommendations contained in the geotechnical report prepared for the Project, and any subsequent Project-related geotechnical reports. These recommendations are further detailed in Section 1.9. With recommendations from the Geotechnical Report being included, the impact would be less than significant.

Expansive soils are defined as soils that undergo large volume changes (shrink or swell) due to variations in moisture content. Such volume changes may cause damaging settlement and/or heave of foundations, slabs-on-grade, pavements, etc. As per the geotechnical evaluation (GHD 2016), expansive clays were encountered below the fill material. The impact from expansive soils is potentially significant. However, the Project would be designed and constructed in conformance with the site-specific recommendations contained in the geotechnical report prepared for the Project, and any subsequent Project-related geotechnical reports. These recommendations are further detailed in Section 1.9. With recommendations from the Geotechnical Report being included, the impact would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil? (Less than Significant with Mitigation)

Construction activities, including removal of vegetation, excavation, grading, soil compaction, and operation of heavy machinery would disturb soil and, therefore, have the potential to cause erosion. However, the Project will be covered under an Erosion and Sediment Control Plan as detailed in Section 1.9. With implementation of this plan, the impact would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Less than Significant Impact)

See above discussion under Impact 3.7a.

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? (Less than Significant Impact)

See above discussion under Impact 3.7a.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (No Impact)

The Project does not propose the installation or modification of septic tanks or wastewater disposal systems. Therefore, construction and operation of the Project would have no impact.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less than Significant with Mitigation)

Paleontological resources are the remains or traces of prehistoric animals and plants. Paleontological resources, which include fossil remains and geologic sites with fossil-bearing strata, are non-renewable and scarce and are a sensitive resource afforded protection under environmental legislation in California. Under California PRC § 5097.5, unauthorized disturbance or removal of a fossil locality or remains on public land is a misdemeanor. State law also requires reasonable mitigation of adverse environmental impacts that result from development of public land and affect paleontological resources (PRC § 30244).

A paleontological survey and evaluation (Cogstone 2006) found that Camp SLO is limited to three fossiliferous formations, with likelihood to produce fossils of various terrestrial and marine species. It is unlikely that Project construction would impact potentially significant paleontological resources, as the Project does not involve any deep excavation that would be likely to result in the inadvertent discovery of paleontological resources. Nonetheless, in the unlikely event that fossils or other paleontological resources are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities would be diverted away from the discovery within 50 feet of the find, and a professional paleontologist would be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find, as a matter of City and County policy. The potential to cause damage paleontological resources is potentially significant.

The Integrated Cultural Resources Management Plan for the California Army National Guard, 2005-2009 (CAANG 2004) established a Standard Operating Procedure (SOP 7) to address accidental discoveries of paleontological resources. This SOP Policy reads as follows:

> CA ARNG will avoid, preserve, or remove (in coordination with paleontologists, or appropriate professional scientists), significant paleontological remains when found on CA ARNG lands.
>
> If paleontological remains are identified in the course of construction or other activities that may disturb or adversely affect the remains, the appropriate procedures identified in SOP 11 (same as inadvertent discovery of archaeological deposits) will be followed, with the following modifications.
>
> - Consultation, field visits, and assessment of the discovery will include a professional paleontologist.
> - Consultation and coordination with tribes is unnecessary unless the find includes cultural materials (artifacts) or deposits.

Because removal of paleontological remains can cause disturbance to habitat, natural resources staff should be consulted in order to establish that no effect to biological resources will result from the removal of those paleontological remains.

Mitigation

Implementation of Mitigation Measures GEO-1 would reduce the impact of construction activities on potentially unknown paleontological resources by addressing discovery of unanticipated buried resources and preserving and/or recording those resources consistent with appropriate laws and requirements.

Mitigation Measure GEO-1: Inadvertent Discovery of Paleontological Resources

In the event that fossils are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities shall be diverted away from the discovery within 50 feet of the find, and a professional paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area shall then be deposited in an accredited and permanent scientific institution where they would be properly curated and preserved.

Therefore, implementation of Mitigation Measure GEO-1 would reduce this impact to a less-than-significant level for both construction and operation because a plan to address discovery of unanticipated paleontological resources and to preserve and/or record those resources consistent with appropriate laws and requirements would be implemented.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less Than Significant Impact)

The SLO County APCD adopted greenhouse gas (GHG) thresholds for SLO County. However, those adopted thresholds were based the state's 2020 emission reduction goals; because projects are now past the year 2020 horizon, the SLO County APCD does not recommend using the thresholds for CEQA analysis. In 2021, the SLO County APCD released interim GHG guidance for thresholds of significance in CEQA. The SLO County APCD's the interim guidance provides options for evaluation of project-generated GHG emissions, including use Sacramento Metropolitan Air Quality Management District's (SMAQMD) adopted GHG thresholds (SLO County APCD 2021). Therefore, for construction emissions, SMAQMD construction phase threshold of 1,100 metric tons per year of CO_2 (SMAQMD 2020) will be used.

Project construction activities would result in exhaust emissions from on-road trucks, worker commute vehicles, and off-road heavy-duty equipment. Construction would require clearing, earthmoving, and delivery equipment, as used for similar projects. Construction emissions were estimated using the Road Construction Emissions Model (RCEM), version 9.0.0 and were estimated to be approximately 634.8 $MTCO_2e$ from all construction activities. The Project would not exceed the threshold of significance and, therefore, the Project's construction impact would be less than significant.

Project operations are not anticipated to generate vehicle trips or increased VMT above existing conditions. Therefore, the Project would not generate an increase in operation-related emissions. Project operations would result in no impact.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (No Impact)

On November 22, 2011, San Luis Obispo County adopted the EnergyWise Plan, which identifies way in which the community and County government can reduce GHG emissions. The EnergyWise Plan identifies best practices for energy, waste, transportation, and land use. The plan was updated in 2016. However, neither the 2011 EnergyWise Plan or the 2016 update identify if the plan is considered 'qualified' by the SLO County APCD or under CEQA Guidelines Section 15183.5(b)(1), which states that qualified plans must have the following elements:

(A) Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

(B) Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;

(C) Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;

(D) Specify measures or a group of measures, including performance standards, that substantial evidence

demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;

(E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;

(F) Be adopted in a public process following environmental review.

Since it is unclear whether the EnergyWise Plan is a qualified GHG Reduction Plan, the California Air Resource Board (CARB) 2017 Climate Change Scoping Plan is used to assess the Project's consistency with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The CARB's adopted Scoping Plan provides California's climate policy portfolio and recommended strategies to put the State on a pathway to achieve the 2030 target. The scenario includes ongoing and statutorily required programs, continuing the Cap-and-Trade Program, and high-level objectives and goals to reduce GHGs across multiple economic sectors. Existing programs, also known as "known commitments," identified by the 2017 Climate Change Scoping Plan include: SB 350, the Low Carbon Fuel Standard, CARB's Mobile Source Strategy, SB 1383 for short-lived climate pollutants and California's Sustainable Freight Action Plan. The high-level objective and goals recommendations cover the energy, transportation, industry, water, waste management, agriculture, and natural and working lands, and are to be implemented by a variety of State agencies.

Project construction would cause a temporary increase in GHGs; however, as discussed above Project emissions would not exceed the identified threshold of significance. The Project is analyzed for consistency with the 2017 Climate Change Scoping Plan in Table 3.8-1. As shown in the table, the Project is consistent with the 2017 Climate Change Scoping Plans. Therefore, the Project would not conflict with the 2017 Climate Change Scoping Plan and would result in no impact.

Table 3.8-1 Consistency Analysis between Project and Climate Change Scoping Plan

Scoping Plan Reduction Measures	Consistency/Applicability Determination
California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable**. This is a statewide measure that cannot be implemented by the Project or lead agency.
California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Consistent**. This is a statewide measure that cannot be implemented by the Project or lead agency. However, the standards would be applicable to the light-duty vehicles that would access the Project Area during construction.
Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Not Applicable**. This is a measure for the state to increase its energy efficiency standards in new buildings. The Project would not result in new habitable buildings subject to the energy efficiency standards.
Renewable Portfolio Standard. Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Not Applicable**. This is a statewide measure that cannot be implemented by the Project or lead agency.
Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	**Consistent**. This is a statewide measure that cannot be implemented by the Project or lead agency. The standard would be applicable to the fuel used by vehicles that would access the Project Area during construction.

Scoping Plan Reduction Measures	Consistency/Applicability Determination
Regional Transportation-Related Greenhouse Gas Targets. Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.	**Not Applicable.** This is a statewide measure calling for the development of GHG emission reduction targets.
Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	**Not Applicable.** This is a statewide measure that cannot be implemented by the Project or lead agency.
Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not Applicable.** The Project does not propose any changes to modes of transportation of goods.
Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Not Applicable.** The Project does not involve structures with roofs.
Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	**Not Applicable.** This is a statewide measure that cannot be implemented by the Project or lead agency.
Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost- effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	**Not Applicable.** This measure would apply to the direct GHG emissions at major industrial facilities. The Project is not an industrial land use.
High Speed Rail. Support implementation of a high-speed rail system.	**Not Applicable**. This is a statewide measure that cannot be implemented by the Project or lead agency. The Project does not involve a high-speed rail system.
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Not Applicable**. This is a measure for the state to increase its energy efficiency standards in new buildings. The Project would not result in new habitable buildings subject to the energy efficiency standards.
High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	**Not Applicable**. The Project would not include air conditioners or commercial refrigerators.
Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	**Consistent.** The Project does not include a landfill. The Project would reduce construction waste with implementation of state mandated recycling and reuse mandates.
Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not Applicable**. Although the Project is located in a rural setting, it would not adversely affect forestland. Additionally, the Project would not include areas suitable for reforestation.
Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	**Not Applicable**. The Project would not include an increase in water consumption or energy use associated with water treatment or transport.
Agriculture. In the near-term, encourage investment in manure digesters and at the five- year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not Applicable.** The Project does not include agricultural production.

Source of Scoping Plan Reduction Measures: CARB 2017

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		X		
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less than Significant Impact)

Demolition of the existing bridge and construction of the Project would include the transport and use of common hazardous materials inherent to the construction process, including petroleum products such as fuel and lubricants for construction equipment and vehicles, paints, concrete curing compounds, and solvents for construction of Project improvements. These materials are commonly used during construction, are not acutely hazardous, and would be used in relatively small quantities.

GHD conducted a hazardous material assessment survey on behalf the of the California Military Department at Project Area on December 22, 2021. Hazardous materials testing found the presence of creosote in the samples of the vertical wood structural members of the existing bridge (GHD 2022a). Material containing creosote is subject to governmental regulations thus should be segregated from the demolition waste stream and treated as hazardous materials. Hazardous materials storage, handling, and transportation must comply with an interconnected matrix of local, state, and federal laws. Hazardous materials used during construction of the Project will be subject to applicable regulations, including California Health and Safety Code Section 25531, Division 20, Chapter 6.5 and other standards enforced by the various departments and boards under the California Environmental Protection Agency (Cal/EPA). The Project will be subject to Cal/EPA hazardous materials regulations consolidated under the state's Unified Program enforced by the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (SWRCB), Central Coast Regional Water Quality Control Board (Regional Board), SLO County APCD, and the

Department of Resources Recycling and Recovery (CalRecycle). The Cal/EPA administers the Unified Program via local Certified Unified Program Agencies (CUPAs). The CUPA for San Luis Obispo County is the San Luis Obispo County Division of Environmental Health (SLODEH). The SLODEH Hazardous Materials Unit has jurisdiction over the Project Area and is tasked with local CUPA inspections and compliance. Project activities involving the transport, use, storage, and disposal of hazardous materials will be in accordance with established rules and regulations.

Worker exposure to hazardous materials is regulated by California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) and requires worker safety protections. Cal/OSHA enforces hazard communication regulations which require worker training and hazard information (signage/postings) compliance. In addition, hazard communication compliance includes procedures for identifying and labeling hazardous substances, communicating information related to hazardous substances storage, handling, and transportation; and preparation of health and safety plans to protect employees.

Project construction specifications will require the management of hazardous materials to comply with applicable laws, rules, and regulations. During Project construction, the contractor would be required to contain hazardous materials and avoid exposure to workers, the public, and surrounding environment during construction. An appropriate facility would be utilized for legal disposal of any hazardous materials generated.

Project construction would be required to implement an erosion control plan and be subject to an MS4 permit as described in Section 1.9. Stormwater management requirements for addressing materials management would be required, including proper material delivery and storage, spill prevention and control, and management of concrete and other wastes, as described in Section 3.10 (Hydrology and Water Quality).

The established regulatory framework, BMPs, and requisite construction protocols provide appropriate risk mitigation and hazard protections, thus the Project would not create a significant hazard to the public or environment from hazardous materials. Because the County and its contractors would be required to comply with existing and future hazardous materials laws and regulations addressing the transport, storage, use, and disposal of hazardous materials, the potential to create a significant hazard to the public or the environment during Project construction would be less than significant.

Following construction, operation of the Project would require intermittent maintenance and repair, which could involve hazardous materials. The operational risk posed by intermittent maintenance and repair of the road specific to hazardous materials is low. The potential to create a significant hazard to the public or the environment during Project operation would be less than significant.

Mitigation Measure HAZ-1. Creosote Disposal

Material containing creosote is subject to governmental regulations, thus such materials should be segregated from the demolition waste stream. Wood treated with creosote should be appropriately handled and disposed of by a licensed contractor employing trained and protected personnel in accordance with all federal, state, and local laws and regulations.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Less than Significant with Mitigation)

The Project would utilize heavy machinery to perform construction-related tasks including grading, excavation, and transportation of materials. During any construction project involving operation of equipment, there is the possibility for an accident to occur, and fuel to be released onto the soil. A potentially significant impact could result from an accidental spill, especially in proximity to a wetland or waterway. This potential impact is addressed under Mitigation **Measure BIO-1** (see Section 3.4 – Biological Resources). Mitigation Measure BIO-1 includes requirements to avoid refueling and equipment maintenance near waters or wetlands. Under Mitigation Measure BIO-1, equipment shall not be refueled within 100 feet of any perennial wetlands or waterways as well as other requirements as described in Mitigation Measure BIO-1 to protect the environment from the accidental release of hazardous materials. With the incorporation of **Mitigation Measure BIO-1**, any potential impact related to streams and wetlands from an accidental spill would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Less than Significant with Mitigation)

Project construction activity would occur approximately 400 feet from Grizzly Challenge Charter School and 1000 feet from the athletic fields for Cuesta College. Construction activities would include the use of materials such as fuels, lubricants, paints, and solvents, which are commonly used during construction, are not acutely hazardous, and would be used in small quantities. Numerous laws and regulations ensure the safe transportation, use, storage, and disposal of hazardous materials (see Impact "a" and "b" above).

Although construction activities could result in the inadvertent release of small quantities of hazardous construction chemicals, a spill or release would not be expected to endanger individuals at Jackson Junior High School given the nature of the materials and the small quantities that would be used. Therefore, because the California Military Department and its contractors would be required to comply with existing and future hazardous materials laws and regulations covering the transport, use, and disposal of hazardous materials, mitigation measure BIO-1 as described in section "b" above, and because of the nature and quantity of the hazardous materials to be potentially used by the Project, the impact related to the use of hazardous materials during construction within one-quarter mile of a school would be less than significant with mitigation.

Following construction, the Project would not include a new stationary source of hazardous emissions or handling of acutely hazardous materials or waste that is already not transported in the school's vicinity. No operational impact would result.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Less than Significant with Mitigation)

Since 2005, the entire Camp SLO site has been an active California DTSC clean-up site (e.g., Cortese List) due to the presence of military munitions and explosives of concern (e.g., unexploded ordnance).[1] However, according to U.S. Army Correspondence from 1964, all of the range areas were cleared by Explosive Ordnance Disposal personnel and items disposed of in 1946 (DTSC 2022). The potential explosion hazard associated with unexploded ordnance at the Project Area is considered extremely low.

The Project Area is listed State Water Resource Control Board (SWRCB) for Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) as potential contaminants of concern (SWRCB 2022). However, in the final preliminary assessment of the site, the area of "Potential PFAS Release" does not contain the Project Area for this job. The impact would be less than significant.

Fuels, lubricants, paints, and solvents could be used during the remaining construction activities. Storage and use of hazardous construction chemicals at the construction sites and staging areas could result in the accidental release of small quantities of hazardous materials, which could degrade soil and impair water quality. However, with adherence to the applicable MS4 permit described in Section 1.9, and Mitigation Measure BIO-1 (Spill Prevention, Control, and Countermeasure Plan), and **Mitigation Measure HAZ-4 (Storage of Hazardous Construction Materials)**, the potential for accidental releases of hazardous construction materials or chemicals into the environment would be less than significant.

Mitigation

Implementation of Mitigation Measures HAZ-2 through HAZ-4 would reduce the impact of construction activities on potentially contaminated soils and/or unexploded ordinance.

Mitigation Measure HAZ-2: Health and Safety Plan

CMD shall ensure that, prior to construction, a site-specific health and safety plan is prepared in accordance with Cal-OSHA regulations (8 CCR Title 8, Section 5192) to address worker health and safety issues during

construction. The health and safety plan shall mandate compliance with Cal-OSHA regulations governing occupational exposure to lead (Title 8, CCR, Section 1532.1). The health and safety plan shall identify the potentially present chemicals, health and safety hazards associated with those chemicals, all required measures to protect construction workers and the general public from exposure to harmful levels of any chemicals identified at the Project Area (including engineering controls, monitoring, and security measures to prevent unauthorized entry to the work area), appropriate personal protective equipment, and emergency response procedures.

Mitigation Measure HAZ-3: Construction Risk and Spoils Management Plan

CA ARNG or CA ARNG's construction contractor shall prepare and implement a construction risk and spoils management plan (CRSMP) to address hazardous materials and other worker health and safety issues during Project construction. The CRSMP shall include all necessary procedures to ensure that excavated materials are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The CRSMP shall include step-by-step procedures for handling and stockpiling demolition debris and excavated material, as applicable. All excavated materials shall be inspected prior to initial stockpiling, and site soils shall be stockpiled separately to ensure contaminated soil is not inadvertently exported offsite.

Mitigation Measure HAZ-4: Storage of Hazardous Construction Materials

A contained and covered area on-site shall be used for storage of cement bags, paints, flammable oils, fertilizers, pesticides, or any other materials that have the potential for being discharged to the storm drain system by wind or in the event of a material spill. The existing bleachers building may be utilized for this purpose. Copies of all hazardous materials/waste spills reports, hazardous material sampling results, and disposal and recycling documentation shall be provided to the Camp SLO environmental office.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area? (No Impact)

The closest airport to the Bravo Range is the San Luis Obispo County Regional Airport, located 7.4 miles to the southeast. Thus, no impact would result.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (No Impact)

The Project Area is located on a non-public military base. The road being repaired and the ones in the area are not part of an adopted emergency response plan or emergency evacuation plan. However, it is possible during an emergency that members of the California National Guard could need access to roads throughout the base to assist with the emergency.

During construction, several other access roads could be used to access any part of the base, except for the bridge, which is already not being used. During construction, bridges at Mendocino Avenue and Humboldt Avenue would continue to be used for the stream crossing. Gate construction would not impede traffic on any road currently used. No Impact would occur.

Project operation would result in an extra path of travel for pedestrians and vehicles that does not currently exist, making traffic flow during the event of an emergency better than is currently on-site. No impact would occur.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (Less than Significant Impact)

The Project is in Federal and Local responsibility areas for wildfire risk that have not been mapped. However, the State lands that surround the Project Area are at moderate risk. (CalFire 2017). The use of construction equipment and the temporary on-site storage of diesel fuel could pose an increased wildfire risk for workers and the public during

construction. Potential sources of ignition include equipment with internal combustion engines, gasoline-powered tools, and equipment or tools that produce a spark, fire, or flame. Smoking by construction personnel is also a potential source of ignition during construction. However, Project construction activities would comply with California Public Resources Code requirements regarding wildland fire safety and Uniform Fire Code requirements for the safe storage and handling of hazardous materials. Compliance with pertinent regulations would ensure the risk of wildland fires remains less than significant.

During operation, the Project would not expose people or structures to a significant risk from wildland fires, thus a less than significant impact would result. Please see Section 3.20 for further discussion of the Project as it relates to wildland fire risks.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
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:			X	
i. result in substantial erosion or siltation on- or off-site;			X	
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;				X
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv. impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

The Project Area is in the Dairy Creek watershed. The Project Area contains the Dairy Creek Watershed, a Clean Water Act section 303(d) listed for impairment for dissolved oxygen levels.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? (Less Than Significant Impact)

The Project is required to obtain and comply with necessary Clean Water Act permits requirements from the Regional Board and USACE, to ensure the Project does not violate any water quality standards or waste discharge requirements. The project will involve work within a state and federal regulated waterway and will require a California Department of Fish and Wildlife's (CDFW) Lake and Streambed Alteration Agreement (LSA).

Demolition and construction activities such as site clearing, grading, excavation, and material stockpiling, placement of aggregate base, and related construction activities could leave soils exposed to rain or surface water runoff that may carry soil contaminants (e.g., nutrients or other pollutants) into waterways adjacent to the Project Area, degrade water quality, and potentially violate water quality standards for specific chemicals, dissolved oxygen, suspended sediment, or nutrients to nearby waterways. The greatest potential Project impacts to water quality would result from sediment mobilization during demolition and construction. There is also the potential for surface water impacts from other pollutants in runoff sourced from construction equipment (such as petroleum fuels and lubricants), and construction materials could contaminate runoff or groundwater. If not properly managed, construction activities could result in erosion, as well the discharge of chemicals and materials into surface and groundwater resources. In such an

instance, applicable water quality standards and waste discharge requirements could be violated, and polluted runoff could substantially degrade water quality in Dairy Creek.

However, as described in Section 1.9, because the proposed Project is subject to various stormwater pollution prevention requirements, including an erosion control plan under the applicable MS4 permit, Project operations will obtain coverage under NPDES permit described in Section 1.9 Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. In compliance with the National Pollutant Discharge Elimination System requirements, a Notice of Intent would be prepared and submitted to the Central Coast Regional Water Board prior to undertaking construction, providing notification and intent to comply with the State of California Construction General Permit (CGP).

Construction and erosion control plans would be written by a qualified professional and would identify and specify the use of erosion and sediment control BMPs, off-site tracking control, wind erosion controls, non-stormwater management control, and waste management and materials pollution control. To reduce potential impacts to surface water quality, construction within Dairy Creek would occur during dry conditions and dewatering would likely not be required.

Implementation of Requirements in Section 1.9, combined with Mitigation Measure BIO-1, would reduce potential water quality impacts during Project construction activities to a less-than-significant level by requiring measures to minimize erosion, sediment, and pollutant contribution to Dairy Creek. Also, upon completion of the bridge replacement, the Project Area would be returned to pre-construction conditions.

Following construction, operation and maintenance of the Project would not result in a new point discharge or a substantial increase in impervious surfaces relative to the surrounding area. The increase in impervious surface area would be treated in accordance with Regional Water Board regulations. Although impacts to water quality from construction would be temporary, mitigation measures from the WDR and the LSA would reduce the impact to less than significant. See Section 3.4 – Biological Resources for applicable mitigation measures.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (No Impact)

The Project is not located in a designated groundwater basin. Furthermore, the Project would not involve the use of extraction of groundwater, and no interference with groundwater recharge would occur. No impact would result.

c.i) 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 result in substantial erosion or siltation on- or off-site? (Less than Significant Impact)

During demolition and construction, erosion and sediment prevention would be implemented to avoid impacts to water quality, including those related to siltation (see impact “a”, above). The Project would be required to adhere to BMPs and conditions to be included in the MS4 permit described in Section 1.9 and CWA Section 401 permit to prevent erosion-related impacts during construction. Substantial on- or off-site erosion and siltation would not result, and the potential construction and operational-related impact with regard to erosion and siltation would be less than significant. Measures to protect water quality and aquatic resources, including special status species, will be implemented to reduce construction-related impacts on Dairy Creek and ensure that upon completion of construction activities, the Project Area be returned to pre-construction conditions. Please reference Section 1.9 – Other Environmental Requirements for additional information on the implementation of erosion and sediment control plans required by NPDES permits.

During operation, the Project would add a marginal amount of impervious surfaces to the Project Area through a larger bridge footprint and roadway improvements at the new gates. Drainage of the bridge deck would be accomplished via surface drainage into new bridge scuppers provided at specified internals along the edge of the bridge and would not meet soil, and therefore no erosion would result. The Project would closely maintain the existing slopes to match pre- and post-drainage conditions at the bridge and gates and there are no signs of localized flooding. No operational impact would result.

c.ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (No Impact)

The Project would add a marginal amount of impervious surfaces to the Project Area through a larger bridge footprint and roadway improvements at the new gates. However, this impervious area is over a stream. In the absence of a bridge, water would fall immediately into the river and so the impervious surface of the bridge is not likely contributing to increase in peak runoff. Drainage of the bridge deck would be accomplished via surface drainage into new bridge scuppers provided at specified internals along the edge of the bridge. The Project would closely maintain the existing slopes to match pre- and post-drainage conditions at the bridge and gates. The Project and all its elements are outside of the 100-yr flood plain. No impact would result.

c.iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Less Than Significant Impact)

During demolition and construction erosion and sediment prevention would be implemented to avoid impacts to water quality, including those related to siltation (see impact “a”, above). The Project would be required to adhere to BMPs and conditions to be included in the MS4 Permit described in Section 1.9 and CWA Section 401 permit for water quality, to prevent erosion-related impacts during construction. Substantial on- or off-site erosion and siltation would not result or pollutant runoff, and the potential construction-related impact with regard to erosion and siltation or pollutant runoff would be less than significant. The Project would install riprap at discharge sites; therefore, the operational impact would also be less than significant.

Within the Project Area existing stormwater drainage systems along the road and bridge are minimal and stormwater is generally discharged into the Dairy Creek. Runoff from the south side of the bridge would flow to a Low Impact Development (LID) detention basin on the west side of the bridge. The northside of the bridge would flow to Dairy Creek as it does currently. New LID treatment features would be installed to treat stormwater runoff where it is not currently treated.

Stormwater at the existing gate is not conveyed through a stormwater system and will not be post-Project. No impact would result.

c, iv) Impede or redirect flood flows? (No Impact)

No portion of the Project is located in the FEMA 100-year flood zone. Existing structural members in the 100-yr flood zone would be removed as part of the Project during non-flood conditions. Existing drainage patters outside the 100-yr flood zone would remain largely unchanged. No Impact would occur.

d) **In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (Less than Significant Impact)**

The Project Area is not located near a larger isolated body of water that may be affected by a seiche. The Project Area is not located within a tsunami hazard zone (CDC 2022). No impact from a seiche or tsunami would result.

Project demolition would include removal of wood structural members in the 100-yr flood zone. Removal of members would occur outside flood conditions. All construction and demolition related materials would be stored outside all flood zones, therefore, there would be no potential for flood-related release of pollutants during demolition. No impact would result from demolition.

Project construction would not occur within the 100-yr flood zone., therefore, there would be no potential for flood-related release of pollutants during construction. No impact would result from construction.

No operational or maintenance activities would occur within the 100-yr flood zone, seiche zones, or tsunami zones. No impact would result from operation.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (No Impact)

The relevant water quality control plan is the CCRWQCB's Basin Plan which establishes thresholds for key water resource protection objectives for both surface waters and groundwater. The Project does not involve the use of groundwater resources and would not impact the quantity or quality of groundwater availability. No impact would result.

Per Section 1.9, the Project would be required to obtain coverage under the applicable MS4 permit, which would include development and implementation of erosion control measures. The Project is also required to obtain and adhere to CWA Section 401 permit (see Section 1.7.2 – Required Regulatory Permits). Adherence to these regulatory requirements and associated requisite monitoring would ensure a conflict with the Basin Plan does not occur. No impact would result.

The Project would meet and/or support the following County of San Luis Obispo General Plan, Conservation and Open Space Element (San Luis Obispo, 2010) goals and policies that regulate water resources during construction and operation of the Project including WR 5: The best possible tools and methods available will be used to manage water resources and WR 6: Damage to life, structures and natural resources from floods will be avoided. No Impact would result.

3.11 Land Use and Planning

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

a) Physically divide an established community? (No Impact)

The proposed Project would not divide an existing neighborhood or community, as the Project takes place on a non-public military base. Connectivity within the base would improve for both cars and pedestrians as a result. No additional roads on the base are expected to need closure during construction. No impact would result.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? (No Impact)

The proposed Project would be located on a military base, and the Project would be replacing existing facilities in roughly the same area and be of a similar size. The Project is not located within the Coastal Zone. Change in land use within the Project would not occur. No impact would result.

3.12 Mineral Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
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?			X	

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? (Less than Significant Impact)

The Project would require minor use of rock, gravel, sand, and other similar materials, but is not expected to have any significant impact on locally available minerals or mineral resources valuable to the region or the State. The impact would be less than significant.

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? (Less than Significant Impact)

The Project Area is not designated by the California Department of Conservation, or any local land use plan as having locally important mineral resources within the Project Area (CDC 1989). The impact would be less than significant.

3.13 Noise

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Result in generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

The Project is subject to the 2015 Statewide Operational Noise Management Plan prepared by the National Guard. Except where noise extends outside of the Camp SLO boundaries, Camp SLO does not designate maximum allowable noise levels.

The Project is located within the central portion of Camp SLO. Sensitive receptors within the general vicinity of the Project include residences, a charter school, athletic fields for Cuesta College, and post exchange. Land uses within the immediate vicinity of the Project are not noise sensitive. The closest sensitive receptors are the California Men's Colony roughly 0.5-mile mile to the south and recreationists at El Chorro Regional Park 0.5-mile mile to the northeast.

In compliance with the local noise ordinance, Project construction would occur between 7:00am - 9:00pm, Monday through Friday and 8:00am – 5:00pm Saturday and Sunday, over a 6-9 month period. Noise generated by Project construction would vary depending on the construction activities taking place and the equipment being operated.

a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Less than Significant Impact)

Within the Chorro Valley, high-speed traffic on Highway 1 is the predominant noise source. Noise generated by Project construction is expected to vary depending on construction activities. Project construction would generate noise from heavy equipment that typically generates noise levels of 80 to 85 a-weighted decibels at 50 feet from the source. Noise levels from construction activities are typically considered as point sources and attenuate (i.e., decrease) with distance at a rate of 6 dBA per doubling of distance over hard site surfaces, such as streets and parking lots, and a rate of 7.5 dBA per doubling of distance for soft site surfaces, such as open terrain with vegetation. At the closest sensitive receptors located 0.5-mile away at El Chorro Regional Park, the noise from construction equipment would be well below acceptable noise levels. The temporary construction-related increase in ambient noise levels would be less than significant.

Upon completion of construction activities, the bridge and gate would be operated in the same manner is currently. The Project would not be traffic-inducing. Therefore, no permanent changes in ambient noise levels would result.

b) Result in generation of excessive groundborne vibration or noise levels? (Less than Significant Impact)

Project construction activities would involve the use and operation of equipment such as a backhoe, excavator, grader, roller, concrete truck, and water truck. This equipment does not generate excessive groundborne vibration or noise levels. No impact would result.

Upon completion of construction activities, the bridge would be operated in the same manner that it has been operated for decades. Therefore, no permanent changes in excessive groundborne vibration or noise levels would result.

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? (No Impact)

The closest airport to the Project is the San Luis Obispo County Regional Airport, located 7.5 miles to the southeast. Thus, no impact would result.

3.14 Population and Housing

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

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)? (No Impact)

The Project would not be growth-inducing and would not result in the need for construction of new homes or businesses directly or indirectly. No new roads, extension of water or sewer utilities, or other infrastructure would be installed or constructed that would indirectly allow for additional residential units or commercial uses to be constructed. Further, the Project does not include any residential units or other development that would directly induce population growth. The Project is intended to serve the Camp SLO's transportation needs and is replacing existing facilities. Given the modest level of construction required for the Project, it is reasonable to anticipate that workforce requirements for construction can be met through the local labor force within the region. Maintenance of the proposed road would be performed by base staff or a hired contractor. No additional local government staff would be required. Due to these reasons, the Project would not induce population growth directly or indirectly, and no impact would result.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (No Impact)

Implementation of the Project would not displace existing housing units or residents. The construction of replacement housing would not be necessary. No impact would result.

3.15 Public Services

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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:				X
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for public services? (No Impact)

The Project is improving upon existing government facilities. The Project would not necessitate any related new or altered public service facilities. The Project would not result in an increase in student population. No impact would occur.

3.16 Recreation

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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?				X
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

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? (No Impact)

The Project proposes no new recreational amenity within San Luis Obispo County. No community parks are on the Project Area, as it has restricted public access. The Project also does not include, or impede, access to recreation. No impact would result.

b) Include or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? (No Impact)

The Project would not create, or utilize, or require construction of any recreational facility. As discussed above, the proposed Project is not likely to be utilized by the public. No impact would result.

3.17 Transportation

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

The Project would replace an existing vehicular bridge with a new bridge that includes pedestrian access, enhancing connectivity within Camp SLO. Project construction activities would occur over an estimated 6-9-month period between 7:00 am and 9:00pm, Monday through Friday, 8:00 am- 5:00 pm Saturday and Sunday, and would require approximately ten construction workers on a given day. Construction would generate vehicle traffic associated with construction worker vehicles, materials and equipment deliveries, and haul trucks. Construction-related vehicles would travel to and from the Project Area on regional and local roads. All construction disturbance, staging, materials storage, and parking would be accommodated within 0.5 miles of the Project Area and adjacent staging area. Bridge 3 is currently closed. Construction activities would not require additional temporary lane or road closures.

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? (Less than Significant Impact)

CMD is proposing to replace an existing vehicular gate and a vehicular bridge (Bridge 3) in order to address the current structural deficiency of the existing bridge. The replacement bridge would be in generally the same location as the existing bridge but would encompass a larger footprint in order to include a sidewalk. The bridge would support an approximately 10-inch existing sewer line, two (2) four-inch conduits for future power, two (2) four-inch conduits for future telecommunications, and one (1) one-inch conduit for bridge luminaires.

Construction-related traffic would be temporary, would vary on a daily basis, and would be distributed over the course of a workday and work week. The number of construction-related vehicles traveling to and from the Project Area would vary on a daily basis. The construction would include a proposed temporary traffic control plan. The existing bridge is presently closed, and no other temporary road closures are anticipated during construction. Therefore, construction activities would not result in substantial adverse effects or conflicts with the roadway system within Camp SLO. The temporary construction impact on the circulation system would be less than significant.

Camp SLO does not have established standards for circulation performance as the installation accommodates extremely low traffic levels. The existing bridge is already closed, and Project construction would not block or cause temporary closure of any additional roadways or traffic lanes during construction. No transit, bicycle, or pedestrian facilities would be affected during construction. Once complete, the Project is not expected to significantly increase vehicle traffic and would not increase Camp SLO's population nor redirect traffic patterns. The Project is consistent with multiple plans and policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

The Project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system; and would take into account all modes of transportation, including non-motorized travel. Therefore, a less than significant impact would occur.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? (Less than Significant Impact)

Pursuant to SB 743 and the current CEQA Guidelines, evaluation of a project's potential transportation impact requires consideration of vehicle miles traveled (VMT), which refers to the amount and distance of automobile travel attributable to a project. Section 15064.3, subdivision (b), of the CEQA Guidelines lists the criteria for analyzing transportation impacts from proposed projects. The criteria are broken into four categories, including land use projects, transportation projects, qualitative analysis, and methodology. Transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less than significant transportation impact. This section was recently added by the state legislature in an attempt to separate CEQA's purpose and role from traffic or other issues related to ease of use of single occupancy vehicles.

Examples of projects that result in the potential to increase VMT include:

– Changes in land use
– Expanded roadways (e.g., new roads, additional lanes)
– Private development
– Expanded public service facilities, such as new police stations, new fire stations, or new administrative buildings
– Residential development, such as a new sub-division

The proposed Project includes none of the above listed elements, as it would be replacing an existing bridge, and does not include any component that could be characterized as resulting in a potential increase to VMT. Per the California Office of Planning and Research (OPR) guidelines for evaluating transportation impacts in CEQA, for roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements (OPR 2019).

Other applicable considerations in the OPR guidance note the criteria for determining the significance to transportation impacts must promote the development of multimodal transportation networks. This Project would restore access to safe pedestrian use by including a sidewalk.

Because the proposed Project would not increase the length of roadway, add new roadways, or increase the number of travel lanes outside of historic conditions, there would be no increase in VMT. The impact would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (No Impact)

The Project would replace an existing bridge and gate, and would not introduce design features (such as sharp curves or dangerous intersections) or incompatible uses. Upon completion of construction, land uses would remain the same as the existing condition. No potentially hazardous roadway design features would be introduced by the Project. The Project would increase safety as it would replace an existing structurally deficient bridge. No impact would result.

d) Result in inadequate emergency access? (Less than Significant Impact)

The Project would enhance access within Camp SLO by replacing an existing vehicular gate and a vehicular bridge (Bridge 3) in order to address the current structural deficiency of the existing bridge. The replacement bridge would be in generally the same location as the existing bridge but would encompass a larger footprint in order to include a sidewalk.

Emergency access to the Project Area already exists and would continue to exist under the proposed Project during both construction and operation. Temporary road closures of the surrounding roads are not expected during construction in the immediate vicinity of the bridge, so ingress and regress would be given to emergency access. Project construction would not slow or hinder emergency response and would not require additional emergency services. Following construction, the new bridge would enhance emergency access. In sum, construction and operational impacts on emergency access would be less than significant.

3.18 Tribal Cultural Resources

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

Please see Section 1.9.4 (Tribal Consultation) for a summary of tribal consultation.

a) Cause a substantial adverse change in the significance of a tribal cultural resource? (Less Than Significant Impact with Mitigation)

CA ARNG provided Section 106 notification letters to the Santa Ynez Band of Chumash Indians (SYBCI) on September 13, 2022. The notification was also part of an informal agreement established in 2010 between the SYBCI and CA ARNG. The SYBCI acknowledged on November 22, 2022, that cultural resources and sensitive areas of interest to them are found within the APE and requested Native American Monitoring during ground disturbing activities. The SYBCI deferred those monitoring activities to yak tityu tityu yak tiłhini Northern Chumash Tribe, a local non-federally recognized group.

The NAHC were contacted by CA ARNG to discuss the proposed Project. The NAHC responded on December 23, 2021, that no Sacred Lands have been recorded within the Project Area.

Currently, CSLO has received no requests under AB 52 for additional tribal consultations from non-federally recognized groups for actions or undertakings occurring within the installation.

With the implementation of Mitigation Measure CR-2, potential impacts to Tribal Cultural Resources would be Less Than Significant.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
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?				X
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? (Less than Significant Impact)

Known utilities at the Project Area include overhead utility lines, a 28-inch CMP storm drain, an 8-inch sewer main, an 8-inch water main, and abandoned 2-inch gas and 8-inch water mains.

The existing overhead utility lines and poles would be impacted during construction activities and would be temporarily relocated until the work is completed. Temporary loss of utility access at the facilities served by these lines is to be expected for less than one day. Advanced warning will be given to all facilities effected. Normal power availability would continue throughout the remaining construction of the Project. Utility lines would be restored to their original location after construction. The new bridge will have one 1" conduit for bridge lighting and 3 spare conduits. The impact would be less than significant.

An existing 8-inch sewer main is located underneath the north side of the existing bridge and would be removed and replaced with the new bridge. The new line would be the same size and capacity and generally in the same footprint of the existing line. The existing line would not be decommissioned until after the new one is constructed and ready to be used, so there would be no lapse in service. The impact would be less than significant.

The existing 8-inch water main located south of the bridge is not attached to the existing bridge structure; no impacts to this utility are expected. The existing and abandoned 2-inch gas and 8-inch water main are located outside the prism of the existing bridge but attached to the existing timber bents supporting the bridge. These utilities would be removed and capped on either end of Dairy Creek. No impact would occur.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? (No Impact)

The proposed Project would not create an increased demand for domestic water service. The Project would require relatively small quantities of water during the construction phase (e.g., for dust control and concrete/asphalt applications). The Project's water demands would not be substantial and can be met by existing entitlements and resources. The Project would not induce population growth or result in land uses that would increase demand for water supplies. Therefore, the Project would not result in the need for the construction of new water facilities, or the expansion of existing facilities. No impact would result.

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? (No Impact)

The Project involves replacing a sewer main that is the same size and capacity as the existing pipe. This would not impact existing municipal sewage infrastructure or result in a demand increase on existing wastewater treatment capacity. No impact would result.

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? (Less than Significant Impact)

The solid waste provider in the area is San Luis Garbage. The Project is not expected to generate a significant increase of services for solid waste disposal needs. The proposed Project would generate limited solid waste during construction and demolition and no waste during operation. Construction and demolition solid waste would include the one-time temporary generation of construction waste associated with the proposed demolition of the existing bridge. Excess soils, aggregate road base, RSP, and construction materials would be stored within designated staging areas. Excess materials may be re-used on-site for backfill and finished grading. Excess materials would not be stockpiled on-site once the Project is complete. The contractor would haul additional excess materials off-site for beneficial re-use, recycling, or legal disposal. Solid waste collected as a part of the Project would be disposed of via San Luis Garbage. Solid waste produced in the service area is trucked to Cold Canyon Landfill, a State licensed landfills located in San Luis Obispo County, in compliance with local, State, and federal regulations pertaining to solid waste disposal. These facilities have sufficient capacity to serve the Project's solid waste disposal needs; therefore, a less than significant impact is anticipated.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (Less than Significant Impact)

As noted above, solid waste would be managed in compliance with local, State, and federal regulations pertaining to solid waste disposal. A less than significant impact is anticipated.

3.20 Wildfire

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
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?			X	
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?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides as a result of runoff, post-fire slop instability, or drainage changes?			X	

a) Substantially impair an adopted emergency response plan or emergency evacuation plan (No Impact)

The Project Area is located on a non-public military base. The road being repaired and the ones in the area are not part of an adopted emergency response plan or emergency evacuation plan. However, it is possible during an emergency that members of the California National Guard could need access to roads throughout the base to assist with the emergency.

During construction, several other access roads could be used to access any part of the base, except for the bridge, which is already not being used. During construction, bridges at Mendocino Avenue and Humboldt Avenue would continue to be used for the stream crossing. Gate construction would not impede traffic on any road currently used. No Impact would occur.

Project operation would result in an extra path of travel for pedestrians and vehicles that does not currently exist, making traffic flow during the event of an emergency better than is currently on-site. No impact would occur.

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? (Less than Significant Impact)

The Project is in Federal and Local responsibility areas for wildfire risk that have not been mapped. However, the State lands that surround the Project Area are at moderate risk. (Cal Fire 2017). The use of construction equipment and the temporary on-site storage of diesel fuel could pose an increased wildfire risk for workers and the public during construction. Potential sources of ignition include equipment with internal combustion engines, gasoline-powered tools, and equipment or tools that produce a spark, fire, or flame. The vegetated portions could be susceptible to wildfire during Project construction or operation, as a result of accidental ignition. During construction, all hazardous materials and construction equipment would be appropriately used and stored pursuant to applicable regulations. During operation, the Project would not house any pollutants within the Project Area that may be released if a wildfire occurred. Furthermore, the Project does not include any structures built for human occupancy. Due to the temporary nature of construction, the minimal amount of hazardous materials anticipated to be stored during the construction phase, the fact that the Project is likely not located within an area of very high fire risk, and given that the Project does

not include any structures to be used for human occupancy, the Project would not exacerbate wildfire risks and thereby expose users to pollutants. A less than significant impact would result.

Smoking by construction personnel is also a potential source of ignition during construction. However, Project construction activities would comply with California Public Resources Code requirements regarding wildland fire safety and Uniform Fire Code requirements for the safe storage and handling of hazardous materials. Compliance with pertinent regulations would ensure the risk of wildland fires remains less than significant.

During operation, the Project would not expose people or structures to a significant risk from wildland fires, thus a less than significant impact would result.

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? (No Impact)

Development of the Project would not result in a need to expand infrastructure to the Project Area or in the immediate vicinity of the Project. New roads for fire defense, expanded water sources, or new power lines would not be required. No impact would result.

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? (Less than Significant Impact)

With the exception of demolition work, which would be scheduled outside of seasons with the potential for flooding, the Project will not be in the 100-yr flood zone. The risk from flooding would be less than significant.

The location of the proposed gate is on a relatively flat land, so there would be no impact from landslides at that location. The proposed bridge would span over moderately steep stream channel slopes. This would make the potential for landslides or failure of natural slopes potentially significant as a result of runoff, post-fire slope instability or drainage changes. However, the Project would be designed and constructed in conformance with the site-specific recommendations contained in the geotechnical report prepared for the Project, and any subsequent Project-related geotechnical reports. These recommendations are further detailed in Section 1.9. With recommendations from the Geotechnical Report being included, the impact would be less than significant.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Does the project:				
a) 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?		X		
b) 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)?			X	
c) Have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			X	

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? (Less than Significant with Mitigation)

As evaluated in this IS/MND, the Project would not 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; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.

Mitigation measures are listed herein to reduce impacts related to air quality, energy, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality. With implementation of the required mitigation measures, impacts would be less than significant.

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)? (Less than Significant Impact)

Cumulative impacts are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Section 15355). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The Project is consistent with the County of San Luis Obispo General Plan. The Project would replace a bridge, enhancing vehicular and pedestrian circulation at Camp SLO.

Table 3.21-1 provides a list of past, present, and reasonably foreseeable future projects within and near the Project Area, including a brief description of the projects and their anticipated construction schedules (if known). Identified projects are summarized in Table 3.21-1.

Table 3.21-1 Projects Considered for Cumulative Impacts

Project	Agency	Summary
Parking Lot and Drainage Pipe Repair and Upgrade *Date TBD*	CMD	Repair and upgrade the parking lot and drainage pipe located north of the west side of Bridge 3.
Dairy Creek Bank Repair *Date TBD*	CMD	Repair and restoration of the west side of Dairy Creek, located south of Bridge 3.

The impacts associated with the proposed Project analyzed in this IS/MND would not add appreciably to any existing or foreseeable future significant cumulative impact, such as visual quality, cultural resources, biological, traffic impacts, or air quality degradation. Incremental impacts, if any, would be negligible and undetectable. Any applicable cumulative impacts to which this Project would contribute would be mitigated to a less-than-significant level. Incremental impacts, if any, would be very small, and the cumulative impact would be less than significant. Because the proposed Project would not result in significant impacts after mitigation, and because the proposed Project is a bridge and gate replacement in a non-public military base, rather than a development project that could add to existing and future population growth and development in the area, the proposed Project would not contribute to any significant cumulative impacts which may occur in the area in the future. Therefore, the impact would be less than significant.

c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly? (Less than Significant Impact)

The Project has been planned and designed to avoid significant environmental impacts. As discussed in the analysis throughout Section 3 of this IS/MND, the Project would not have environmental effects that would cause substantial adverse direct or indirect effects on human beings. The impact would be less than significant.

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Appendices

Appendix A

Mitigation, Monitoring and Reporting Program

Camp San Luis Obispo Vehicular Bridge 3 Replacement Project
Mitigation Monitoring and Reporting Plan

The California Environmental Quality Act (CEQA) requires the adoption of feasible mitigation measures to reduce the severity and magnitude of potentially significant environmental impacts associated with project development.

CEQA Guidelines Section 15091(d) states:
When making the findings required in subdivision (a)(1), the CEQA Lead Agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be enforceable through permit conditions, agreements, or other measures.

CEQA Guidelines Section 15097(a) states:
This section applies when a public agency has made the findings required under paragraph (1) of subdivision (a) of section 15091 to adopt a mitigated negative declaration in conjunction with approving a project. In order to assure that the mitigation measures and project revisions identified in the negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.

Mitigation Measures

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
OTHER REQUIREMENTS AND CONSIDERATIONS – Compliance with Existing Regulations and Standard BMPs				
The Project will abide by the following regulations and industry-accepted Best Management Practices (BMPs) to reduce or avoid potential adverse effects that could result from construction or operation of the Project. In addition to these BMPs, mitigation measures are presented in Chapter 3, Environmental Analysis, to reduce potentially significant environmental impacts below a level of significance. The actions identified below and the mitigation measures prescribed in the subsequent sections of this Initial Study will be included in the Mitigation Monitoring and Reporting Program (MMRP) for consideration during the Project approval process. The MMRP will define the responsible parties, timing, specific actions, and reporting requirements for all conditions of approval and mitigation measures.	Comply with regulations and BMPs	As Needed	See below	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
San Luis Obispo County Air Pollution Control District (SLO County APCD) NESHAP Notification *Work meeting the NESHAP definition of a demolition and/or work impacting RACM in quantities above specific size thresholds necessitates the submittal of a Renovation/Demolition Notification form and associated fee to the SLOCAPCD (address above). SLOCAPCD requires a notification for the disturbance of any amount of suspect ACM, however, the RACM quantity thresholds necessitating notification and associated fee to SLOCAPCD are greater than, or equal to the following:* - *160 square feet, 260 linear feet (for pipe insulation), or 35 cubic feet (for debris or waste)* *The NESHAP regulations stipulate that the Project owner shall notify the SLOCAPCD at least 10 business days prior to the commencement of a renovation or demolition project or work that impacts RACM in excess of the above-noted quantities. A NESHAP notification is required by the SLOCAPCD if a project includes one or more of the following:* - *The impaction of RACM in excess of the SLOCAPCD notification thresholds* - *Work that meets the NESHAP definition of a "demolition," which is defined as the unweighting or removal of any structural members* • *Note: a NESHAP notification is required for all demolition projects and is not dependent on the presence or absence of asbestos (ACM or RACM)* *In addition to the NESHAP regulations enforced by the SLOCAPCD, work at the project area shall be conducted in accordance with applicable employee protection regulations enforced by Cal/OSHA, including 8CCR1529, 5203341.6-341.26 and the California Health and Safety Code.* *As required by 8CCR1529(r) and 5203, written notification must be made to the nearest Cal/OSHA District Enforcement Office with jurisdiction over the project area for Asbestos-Related Work. Cal/OSHA notification shall be made at least 24 hours prior to the start of hazardous material-related work and is required if the planned project scope includes the one or both of the following elements:* - *The impaction of ACM, ACCM and/or LBP in excess of 100 square feet*	Provide NESHAP notification	At least 24 hours prior to the start of hazardous material-related work	Construction contractor	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
Asbestos (Air Toxic Control Measure) ATCM for Construction, Grading, Quarrying, and Surface Mining Operations The Project is located an area of naturally occurring asbestos (NOA) and therefore is required to abide by the California Air Resources Board's Air Toxics Control Measure (NOA ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities (SLO County APCD 2022d).	Abide by CARB ATCM	Prior to grading activities	Construction contractor	
Implement Geotechnical Design Recommendations The Project will be designed and constructed in compliance with the site-specific recommendations made in Geotechnical Report (GHD 2016). This will include design in accordance with recommendations for no wet weather earth work, subgrade preparation, engineered fill, compaction requirements open-cut trenching, seismic design, surface drainage and erosion control, construction observation and other factors. The geotechnical recommendations will be incorporated into the final plans and specifications for the Project and will be implemented during construction.	Incorporate geotechnical design recommendations into final plans and specifications, and implement during construction	Prior and during construction	Construction contractor	
Tribal and Archaeological Monitoring CA ARNG is committed to tribal and archaeological monitoring during construction activities. In compliance with Section 106 of the National Historic Preservation Act (NHPA), CA ARNG notified the Santa Ynez Band of Chumash Indians' (SYBCI) Tribe regarding the Project and prior to ground disturbing activities. In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, CA ARNG will provide a qualified archaeologist to monitor the remaining ground-disturbance activities and ensure that such activities do not adversely affect recorded archaeological sites.	Monitor ground-disturbance activities	During construction involving ground disturbance	Qualified Archaeologist	
Nesting Bird Survey For any construction activities occurring between March 15 through August 15, a qualified biologist will conduct a nesting bird survey within two weeks prior to the start of construction. If nesting birds are found, an appropriate setback buffer will be established, and no construction	Conduct nesting bird surveys	Prior to construction occurring between March 15 – August 15.	Qualified Ornithologist	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
activities will occur in this setback area until the birds have fledged and are no longer reliant on the nest.				
Implementation of Erosion and Sediment Control Plan Through Adherence to NPDES General Permit for Waste Discharge Requirements for Storm Water Discharges from Small Municipal Sperate Storm Sewer Systems (MS4s) The Permittee shall adhere to the National Pollutant Discharge Elimination System (NPDES) General Permit for Waste Discharge Requirements (WDR's) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (ms4s) water quality (wq) order 2013-0001-dwq NPDES no. cas000004 as amended by order wq 2015-0133-exec, order wq 2016-0069-exec, wq order 2017-xxxx-dwq, order wq 2018-0001-exec, and order wq 2018-0007-exec. Which requires the permittee to develop, implement, and enforce a program to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters. The program shall include the development of an enforceable construction site storm water runoff control ordinance for all projects that disturb less than one acre of soil. The construction site storm water runoff control ordinance shall include, at a minimum, requirements for erosion and sediment controls, soil stabilization, dewatering, source controls, pollution prevention measures and prohibited discharges. The review procedures shall meet the following minimum requirements: a. Prior to issuing a grading or building permit, the Permittee shall require each operator of a construction activity within its jurisdiction to prepare and submit an erosion and sediment control plan for the Permittee's review and written approval. The Permittee shall not approve any erosion and sediment control plan unless it contains appropriate site-specific construction site BMPs that meet the minimum requirements of the Permittee's construction site storm water runoff control ordinance. If the erosion and sediment control plan is revised, the Permittee shall review and approve those revisions. b. Require that the erosion and sediment control plan include the rationale used for selecting BMPs including supporting soil loss calculations, if necessary.	Develop and implement program to prevent discharges of pollutants to receiving waters	Prior to construction	Construction contractor	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
c. Require that the erosion and sediment control plan list applicable permits directly associated with the grading activity, including, but not limited to the State Water Board's CGP, State Water Board 401 Water Quality Certification, and California Department of Fish and Game 1600 Agreement. Include as a condition of the grading permit that the operator submit evidence to the MS4that all permits directly associated with the grading activity have been obtained prior to commencing the soil disturbing activities authorized by the grading permit. d. Conduct and document review of each erosion and sediment control plan using a checklist or similar process. e. The SWPPP developed pursuant to the CGP may substitute for the erosion and sediment control plan for projects where a SWPPP is developed. The Permittee is responsible for reviewing applicable portions of the SWPPP for compliance with the Permittee's construction site storm water runoff control ordinance and this Order.				
OTHER REQUIREMENTS AND CONSIDERATIONS – Spill Prevention, Control, and Countermeasure Plan				
Construction workers shall take the following 9 steps in the event of spills or leaks of petroleum products, hazardous construction chemicals, or other hazardous chemicals during construction. 1. Stop the Flow if possible – shut off valves, turn drums upright, plug or cover the leak source. Don't take unnecessary chances but stop the flow if you can do so without getting hurt or contaminated. Approach the spill/release from the upwind side. Shower and change clothes as soon as possible if you come in contact with hazardous materials. 2. Contain the Spill to the smallest possible area: surround with absorbent material, dirt, floor sweep, etc. Make every effort to keep spilled materials out of storm drains, sewers, or other drainages or water ways. 3. Control Traffic. Don't let other people drive or walk-through spill area. Set up traffic barriers, orange cones, tape off the area and or leave a person at the spill site to divert traffic away	Take designated steps in the event of spills or leaks of petroleum products, hazardous construction chemicals, or other hazardous chemicals Report spill and coordinate as needed	During construction	Construction contractor	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
from the area. If the spill is small, it may be better to stop the source and contain the flow before notifying your supervisor. 4. Report the spill to your supervisor and sound the local alarm or give verbal warning. a. If the spill/release occurs during regular work hours and the spill/release is a hazardous material greater than one gallon in volume, if spilled to an impervious/pervious land surface, or any volume, if spilled to a surface waterway, contact the California Army Division – Environmental (NGCA-ARN-EN) or the appropriate training site environmental office to ascertain if the California Emergency Management Agency (Cal-EMA) is required to be notified. If the release/spill is more than you can safely handle or if the spill/release has entered a storm drain or waterway appoint a responsible person to call the local emergency response or to call 911. b. If the spill/release occurs after regular duty hours and/or on a weekend or holiday, call the California National Guard Joint Forces Headquarters' Joint Operations Center (JOC) at (916) 854-3440 or DSN 466-3440. Leave your name or other point of contact, telephone number and a brief description of the incident with the JOC Duty Officer and follow the JOC's instructions. 5. Isolate the immediate spill area if it has been ascertained that the release/spill is a significant release until emergency response agents arrive. Keep other people or vehicles out of danger and avoid blocking access for emergency responders. 6. If the spill/release is contained on a paved surface (concrete/asphalt) and has been absorbed completely, collect the spill debris and place into an appropriate container. Mark the container with a hazardous waste label and mark the label with a permanent marker "HAZARDOUS WASTE, CONTAMINATED ABSORBENT (name of spilled material if known)". Turn in collected wastes to the designated collection point at the training sites, or to your facility's hazardous waste				

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
accumulation site for disposal. If on the road use the sturdy garbage bags in the vehicle spill kits until the spill debris can be transferred into an appropriate container. 7. If the spill/release did not occur on an impervious surface, or if it went into drainage or waterway, then your Environmental Compliance Officer (ECO) or unit supervisor will immediately notify the California Army Division -Environmental Directorate and the appropriate contacts listed in the Emergency Response Notification List. 8. Coordinate with your ECO to fill out CA ARNG Form 200-1-8b: Hazardous Materials/Waste Incident Report. Send or fax copies to: California Military Department 3900 Roseville Rd. North Highlands, CA 95600 Fax: (916) 854-1467 9. Call the California Army Division – Environmental at (916) 854-1479 if you have questions pertaining to spill/release notification and reporting.				
BIOLOGICAL RESOURCES				
BIO-1: Best Management Practices to Protect Dairy Creek. The following activities will be implemented during construction: - If water is present in within the Project Area (i.e., channel of Dairy Creek) at the time of construction, a dewatering plan will be developed for review and acceptance by regulatory agencies at least 15 days prior to the onset of construction. - No excavation or equipment operation will occur where flowing water is present. - No construction activities shall occur during or within 24-hours following a rain event. - Suitable BMPs, such as silt fences, fiber rolls, or earthen berms would be installed or constructed between work zones and staging and temporary material stockpile areas, and any watercourse to collect loose debris and to intercept sediment	Develop Dewatering Plan Install sediment/ debris/erosion control measures Timely monitoring, maintenance, and reporting required by the regulatory agencies shall be implemented	15 days prior to onset of construction Prior to pending rain As Needed	Qualified Biological / Construction Contractor	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
during rain events. These structures shall be installed pursuant to regulatory specifications prior to pending rain events (trigger = greater than 50 percent possibility of rain within the next 24 hours), as forecasted by the National Weather Service. Any sediment caught by the fence or rolls would be removed before the fence/rolls are pulled. - Temporary spoils or construction material sites shall be located so as to not drain directly into ditches, streams, or other waterbodies. If a spoils/construction materials site has the potential to drain into a surface water feature, a retention basin, berm(s), or other catchment device shall be constructed or installed to intercept silt-laden storm runoff before it reaches any waterbody. Areas disturbed by construction and temporary storage sites shall be graded, seeded, and mulched upon completion of construction, whether or not they pose the risk of erosion and the off-site release of fine sediment. - All construction debris shall be removed from the site in a timely manner and disposed of appropriately. - All exposed mineral soil, or stockpiles to remain on-site through the wet season shall be protected from erosion associated with wind and rain (e.g., silt fences, straw bales, straw mulch, and tarps). - Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e., USACE, CCRWQCB, and CDFW) shall be implemented and completed pursuant to established criteria and/or schedules. All measures contained in Project permits or associated with agency approvals shall be implemented in a timely manner. - Refueling of equipment will not occur within 100 feet of waters or wetlands. - Equipment shall be cleaned of deleterious materials before being delivered to the job site. Equipment shall be staged and materials shall be stockpiled outside of riparian habitat. - Impacts to herbaceous cover shall be offset by reseeding any unvegetated and impacted areas with a suitable seed mixture post-construction.	Spill kits kept on-site. In the event of a spill, the local CDFW office (and the Office of Spill Prevention and Response if the spill is large) shall be notified and consulted			

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
- Any construction equipment operating adjacent to or over a stream shall be inspected daily for leaks. Any oil, fuel, and grease residue that has the potential to fall from machinery shall be removed and properly disposed of. - All heavy equipment shall be inspected and cleaned at an off-site location prior to delivery to the work site. - Equipment parking, maintenance, and fueling shall occur at designated upland staging areas only, with all staging locations spatially isolated from watercourses. - Light equipment such as generators, welders, or pumps, or any heavy equipment including water drafting trucks, would use drip pans or other devices (i.e., absorbent blankets, sheet barriers, or other materials) to avoid contamination of surface waters or soils located adjacent to waterbodies. - Equipment shall be inspected for leaks before each shift, throughout the shift, and at end-of shift each day. - All fueling, lubing, and equipment maintenance shall be performed in an environmentally responsible manner. - All activities relative to fueling, lubing, and maintenance shall be performed in designated staging areas unless equipment has been immobilized due to mechanical failure. In those instances, every effort shall be made to safeguard against and control the release of contaminants as repairs are being made. - Fuels and lubricants shall not be stored on-site after-hours or on weekends or holidays. - Maintenance involving the removal or repair of hydraulic cylinders, hoses, or of any reservoirs containing TPH or other deleterious substances, shall be performed over impermeable fabric or other surfaces resistant to such substances. Fueling trucks shall at all times be equipped with sealed spill kits. - Two sealed 5-gallon spill kits shall be kept on-site through the course of the construction. Kits that are used shall be replaced in-kind with new sealed kits. Unsealed spill kits shall be removed from the site as they are oftentimes missing key components necessary during emergency spill situations.				

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
- If work is to occur over open water or over the wetted portion of the river, an oil boom capable of spanning the wetted portion of said waterbody shall be available each day that such work is to be performed. The oil boom shall be deployed downstream of the Proposed Action, and full width of the wetted channel each time, and for the duration of time equipment is required to work over the wetted channel. Floating absorbent pads, designed specifically to recover TPH from the surface of water, shall be available each day work is to occur over said waterbody. All employees shall know the on-site location of such devices. Furthermore, each employee shall be trained in the functional limitations of such devices, as well as trained in the proper and expeditious deployment of such devices. Pre-construction training is paramount to ensuring rapid containment, recovery, and storage of substances known to be harmful to biological resources and water quality. Employees replacing those initially trained, or any additional employees new to the site shall be fully trained in the use of emergency BMPs as a prerequisite to employment. - In the event of a spill, the local CDFW office shall be notified and consulted regarding clean-up procedures. Large spills should also be reported to the Office of Spill Prevention and Response, 1700 K Street, Suite 250 Sacramento, CA 95811, or report oil spills to 800-852- 7550 or 800-OILS-911.				
BIO-2: Environmental Awareness Briefings Prior to the start of work, all construction workers will be briefed on the biology and life history of federally-listed (specifically California Red-legged Frog and Steelhead), state-listed, and state special status wildlife species potentially present in the Project Area. The training will include species identification, avoidance and minimization measures, communication protocols, and consequences of non-compliance.	Brief construction workers on the biology and life history of federally-listed, state-listed, and state special status species within the project area	Prior to the start of construction	Qualified Biological Resources Contractor	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
BIO-3: Protect and Restore Riparian Habitat - Removal of riparian vegetation shall be limited to the smallest footprint necessary to install the replacement bridge. Restoration of riparian habitat shall occur at a location along Dairy Creek, or other suitable location within the same watershed, that could benefit from a "lift" in habitat through either native tree and riparian understory planting, removal of invasives, removal of abandon fill or man-made debris, or some combination thereof. This will be documented in a Riparian Vegetation Management Plan. - A Riparian Vegetation Management Plan (Plan) shall be prepared to identify trees and other vegetation that will be removed and to identify the types and locations of replacement riparian vegetation that will be planted following bridge construction. - The Plan also will detail restoration techniques, time of year the work will be done, monitoring activities and duration, success criteria for completion, and remedial actions if the success criteria were not achieved. Revegetation will be undertaken both to replace removed vegetation and to reduce the potential for streambank erosion. - Objectives to protect will include protecting existing riparian vegetation to the maximum extent possible, and avoiding removal of oak, willow, and western sycamore from the banks of Dairy Creek. Objectives to restore will include replacing lost or damaged riparian vegetation at a three-to-one ratio (e.g., for every tree removed, three replacement trees would be planted), using native vegetation for plantings, and restoring areas that have previously been filled. - Success of revegetation plantings shall be determined by an 85% survival rate at the end of monitoring. Should the monitoring results indicate that the goals of the protection measures are not being met, those measures will be modified, and monitoring will continue until the success criteria is met.	Prepare Riparian Vegetation Management Plan	Prior to the start of construction	Qualified Biological Resources Contractor	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
BIO-4: Protect Special Status Bats - Remove confirmed or presumed-occupied bat roost habitat during seasonal periods of bat activity (when bats are volant, i.e., able to leave roosts) between March 1 and April 15 to avoid hibernating or September 1 and October 15 when young are capable of flying, and when evening temps rise above approximately 45 degrees F, and when no rainfall greater than ½ inches has occurred in the last 24 hours. Prior to demolition: o A qualified bat biologist shall verify if the bridge is being used by roosting bats. If there are no roosting bats, demolition can proceed without restrictions. o If roosting bats are found, and flushing of bats is necessary, it shall be supervised by a qualified biologist. When flushing bats structures shall be removed carefully to avoid harming individuals, and torpid bats given time to completely arouse and fly away. The bridge may need to be demolished using a stepped process where outer layers are removed on the first day, allowing bats to leave at night and find other roosting areas, and additional bridge sections removed on subsequent days until all bats have left the structure. - If trees or structures (e.g., bridge) cannot be removed during the volant period, i.e., Project activities occur during the bat maternity season which generally occur April 16 through August 30, a qualified bat biologist shall conduct surveys within suitable habitat, i.e., the bridge, for special status bats. Survey methodology shall include visual examination with binoculars or other appropriate methods. o Surveys shall be conducted by a qualified biologist prior to construction in any areas where potential maternity roosts may be disturbed/removed. Surveys shall include a visual inspection of the impact area and any large trees/snags with cavities or loose bark or crevices within infrastructure. If the presence of a maternity roost is confirmed, an appropriate buffer distance would be established in consultation with the	Identify Bat habitat and flush out bats. Survey for maternity roosts Implement Bat Exclusion Devices	Between March 1 and April 15 or September 1 and October 15 Prior to construction Prior to March 1	Qualified Biologist	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
CDFW to ensure that construction noise would remain below disturbance thresholds for bats. o Prior to March 1st, a qualified bat biologist can be employed to install bat exclusion devices at the bridge, such as nets, plastic drapes, or one-way tunnels, that allow bats to leave the roost but that do not permit their return. These devices would be installed by the end of February. Conduct exclusion activities at night and monitor the bridges to ensure that no bats return and roost in the bridges during the exclusion period and prior to the start of construction.				
BIO-5: Protect Special Status, Migratory and Nesting Birds Ground disturbance and vegetation clearing shall be conducted, if possible, during the fall and/or winter months and outside of the avian nesting season (which is generally assumed to occur between March 15 – August 15) to avoid any direct effects to special status and protected birds. If ground disturbance or vegetation clearing cannot be confined to the fall and/or winter outside of the nesting season, a qualified ornithologist shall conduct pre-construction surveys within the vicinity of the BSA, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special status bird species. The ornithologist shall conduct at minimum a one-day preconstruction survey within the seven-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the nesting season, a qualified ornithologist shall conduct a supplemental avian pre-construction survey before Project work is reinitiated. If active nests are detected within the construction footprint or within 500 feet of construction activities, the ornithologist shall flag a buffer around each nest. Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged or nesting activity has ceased. If nests are documented outside of the construction (disturbance) footprint, but within 500 feet of the construction area, buffers would be implemented as needed. In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the CDFW and, if applicable, with the USFWS. Buffer	Conduct pre-construction surveys to check for nesting activity in the event construction cannot be completed outside nesting season	Prior to construction: within the seven-day period prior to vegetation removal and ground-disturbing activities	Qualified Ornithologist	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
sizes would take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds. If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.				
BIO-6: Protect California Red-legged Frog and Special Status Amphibians Environmental Awareness Briefings. As detailed in Measure BIO-2, prior to construction or related activities in areas where the California Red-legged Frog and Coast Range Newt are likely to occur, environmental staff will brief contractors and other participants about its potential presence. The briefings will include a flyer with photos and a description of the species and its habitat, the general provisions of the ESA and the necessity to comply, and the measures that are being implemented to conserve the species as they relate to the activity. Pre-construction surveys. If work is scheduled to occur in aquatic or riparian habitat of the California Red-legged Frog and the Coast Range	Conduct pre-construction surveys	One night survey on the evening that precedes the start of work and one daytime survey completed the morning that work is scheduled to begin As needed	Qualified Biologist	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
Newt, including but not limited to the ephemeral stream at the western limit of the Project Area, a qualified biologist will conduct a pre-construction survey prior to the start of work in that area. The survey will include one night survey on the evening that precedes the start of work and one daytime survey completed the morning that work is scheduled to begin. If Project activities cease for more than three days, a qualified biologist will conduct another survey prior to project activities resuming. The survey will include inspection of small mammal or other burrows within the potential disturbance area, if any are present. If a California Red-legged Frog is found, work will not begin in that area and the frog will be allowed to leave the area on its own. If the frog does not leave the area within 24 hours, the USFWS Ventura Field Office will be contacted for guidance on how to proceed. In the event that a Coast Range Newt is observed in an active construction zone, the contractor shall halt construction activities in the immediate area where observed and the newt shall be moved to a safe location in similar habitat outside of the construction zone. Construction Restrictions. Construction activities within riparian, aquatic, or wetland area will be limited to the minimum area and duration required to meet the Project design requirements. Seasonal Restrictions. Construction will not occur in wetland areas during the breeding season (generally November through April) of the California Red-legged Frog. Hazardous Materials. All hazardous materials will be stored in designated locations at least 100 feet from wetland areas, along with appropriate materials for containing accidental spills. Any hazardous spill will be cleaned up immediately in accordance with established guidelines. Decontamination for Chytrid Fungus and Other Pathogens. Any equipment (boots, nets, shovels) that has been used off of the installation will be decontaminated prior to conducting activities in riparian or wetland habitat for the California Red-legged Frog. Decontamination will comprise the equipment being scrubbed with a 75 percent ethanol solution or bleach solution (0.5- 1.0 cup/gallon of water) and then rinsed with water. Decontamination will not occur within 100 feet of wetlands. Project Area. Prior to commencing construction in or near habitat of the California Red-legged Frog, the Project Area will be clearly delineated	Construction Restrictions/ Controlled Hazardous Materials/ Trash removal/ Erosion Control/ Exclusion fencing		Contractor	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
with stakes or brightly colored flags so that equipment is confined. The Project Area will comprise the smallest practical space. Erosion Control. Erosion control and other best management practices will be implemented in areas where exposed soils could potentially lead to sedimentation in habitat of the California Red-legged Frog. Trash Removal. All food related trash will be stored in closed containers and removed from the Project Area at the end of the day. The area will be kept clean. Exclusion Fencing. Silt fencing or exclusion fencing will be maintained around ground disturbance areas during construction activities. The intent of the fencing is to prevent California Red-legged Frogs from entering the construction area. The fencing will be inspected as part of the pre-construction day survey and periodically thereafter to ensure that there are no gaps which might allow frogs to pass.				
BIO-7: Protect Special Status Reptiles No more than one week prior to commencement of ground disturbance within 50 feet of suitable aquatic turtle habitat (e.g., creeks, riparian areas), a qualified biologist shall perform a preconstruction survey for Western Pond Turtles and shall relocate any individuals or eggs that occur within the work-impact zone to nearby suitable habitat. In the event that a Western Pond Turtle (or other special status reptile) is observed in an active construction zone, the contractor shall halt construction activities in the immediate area where observed and the turtle shall be moved to a safe location in similar habitat outside of the construction zone.	Pre-construction survey	One week prior to construction	Qualified Biologist	
BIO-8: Protect Special Status Fish - All instream work will be completed during the regulated in-water work window, typically mid-June through late October depending on rainfall. Limit instream work between mid-June through late October to reduce potential impacts to Steelhead spawning and migration. - A debris net will be installed if flowing water is present in the project area..	Vibratory Pile driving will be set back 10+ feet from any aquatic habitat Implement BMPs related to erosion, dust, and pollutants.	During Construction / As needed	Construction Contractor/ Qualified Biologist	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
- CMD shall ensure that any vibratory pile driving will adhere to a minimum setback of ten feet from any wetted aquatic habitat (Dairy Creek) to avoid noise and vibration-related impacts to special status fish. - Implementation of BMPs to reduce erosion, dust, and potential for polluted run-off into Dairy Creek would be implemented to minimize impacts to aquatic resources. Measures may include silt fences, sediment traps, and other erosion control devices during Project construction to promote bank stabilization and minimize impacts to special status fish species associated with runoff and sedimentation. - Dairy Creek is wetted at the time of construction, temporary dewatering may be necessary to divert stream flow away from the Project Area. Water would be pumped downstream to maintain stream flows at all times downstream during construction. The creek channel and flow regime would be modified in compliance with CDFG and USACE conditions. Upon completion of construction activities, any barriers to flow would be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Impacts to aquatic habitat connectivity are expected to be minimal and of short duration.	Creek channel and flow regime modification in compliance with USACE and CDFW			
CULTURAL RESOURCES				
CR-1: Workers Environmental Awareness Program (WEAP) A qualified archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archaeology (National Park Service [NPS] 1983) shall conduct a WEAP training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. Archaeological sensitivity training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find. The WEAP training document shall include materials which convey the information noted above, which	Conduct WEAP training on archaeological sensitivity for construction personnel	Prior to construction	Qualified Archaeologist	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
shall be maintained in an area accessible to all construction personnel so that it may be reviewed regularly by construction staff.				
CR-2: Unanticipated Discovery of Cultural Resources In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the resource. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The City shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C). - Implementation of Mitigation Measure CR-1 and CR-2 would reduce the potential impacts to a less-than-significant level during construction because a plan would be implemented to address discovery of unanticipated archaeological resources and to preserve and/or record those resources consistent with appropriate laws and requirements.	If archaeological resources are discovered, they shall be evaluated by a qualified archaeologist Determine eligibility and implement appropriate treatment measures	During construction	Qualified Archaeologist/ Native American representative	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
CR-3: Unanticipated Discovery of Human Remains No human remains are known to be present in the APE. However, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are unexpectedly found, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. Implementation of Mitigation Measure CR-3 would reduce the potential impacts to a less-than-significant level during construction because a plan would be implemented to address discovery of unanticipated human remains and to preserve and/or record those resources consistent with appropriate laws and requirements.	If human remains are encountered, halt construction and follow procedures as appropriate	During Construction	Qualified Archaeological Monitor and a qualified Native American/Cultural Monitor or Qualified Contractor	
GEOLOGY AND SOILS				
GEO-1: Inadvertent Discovery of Paleontological Resources In the event that fossils are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities shall be diverted away from the discovery within 50 feet of the find, and a professional paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the	If fossils are found, halt construction and establish a 50-foot buffer zone around the find	During Construction	Professional Paleontologist	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
area shall then be deposited in an accredited and permanent scientific institution where they would be properly curated and preserved. Therefore, implementation of Mitigation Measure GEO-1 would reduce this impact to a less-than-significant level for both construction and operation because a plan to address discovery of unanticipated paleontological resources and to preserve and/or record those resources consistent with appropriate laws and requirements would be implemented.				
HAZARDS AND HAZARDOUS MATERIALS				
HAZ-1: Creosote Disposal Material containing creosote is subject to governmental regulations, thus such materials should be segregated from the demolition waste stream. Wood treated with creosote should be appropriately handled and disposed of by a licensed contractor employing trained and protected personnel in accordance with all federal, state, and local laws and regulations.	Separate materials containing creosote from dispose of properly	During Construction	Licensed contractor	
HAZ-2: Health and Safety Plan CMD shall ensure that, prior to construction, a site-specific health and safety plan is prepared in accordance with Cal-OSHA regulations (8 CCR Title 8, Section 5192) to address worker health and safety issues during construction. The health and safety plan shall mandate compliance with Cal-OSHA regulations governing occupational exposure to lead (Title 8, CCR, Section 1532.1). The health and safety plan shall identify the potentially present chemicals, health and safety hazards associated with those chemicals, all required measures to protect construction workers and the general public from exposure to harmful levels of any chemicals identified at the Project Area (including engineering controls, monitoring, and security measures to prevent unauthorized entry to the work area), appropriate personal protective equipment, and emergency response procedures.	Prepare a site-specific Health and Safety Plan	Prior to Construction	California Military Department (CMD)	

Mitigation Measures	Monitoring or Reporting Action	Timing of Monitoring or Reporting Action	Responsible Party	Compliance Verification Date
HAZ-3: Construction Risk and Spoils Management Plan CA ARNG or CA ARNG's construction contractor shall prepare and implement a construction risk and spoils management plan (CRSMP) to address hazardous materials and other worker health and safety issues during Project construction. The CRSMP shall include all necessary procedures to ensure that excavated materials are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The CRSMP shall include step-by-step procedures for handling and stockpiling demolition debris and excavated material, as applicable. All excavated materials shall be inspected prior to initial stockpiling, and site soils shall be stockpiled separately to ensure contaminated soil is not inadvertently exported offsite.	Prepare and Implement a Construction Risk and Spoils Management Plan	Prior and during construction	Construction contractor	
HAZ-4: Storage of Hazardous Construction Materials A contained and covered area on-site shall be used for storage of cement bags, paints, flammable oils, fertilizers, pesticides, or any other materials that have the potential for being discharged to the storm drain system by wind or in the event of a material spill. The existing bleachers building may be utilized for this purpose. Copies of all hazardous materials/waste spills reports, hazardous material sampling results, and disposal and recycling documentation shall be provided to the Camp SLO environmental office.	Prepare and maintain a contained and covered onsite storage area	During Construction	Construction contractor	

Appendix B

NEPA Categorical Exclusion

ENVIRONMENTAL DETERMINATION

Project Name: CSLO – Remove and Replace Bridge 104 **Date: 13 July 2023**

Project Description:
The project will remove and replace Bridge 104 to address the current structural deficiency of the existing bridge. The bridge is located on Kern Ave in the main cantonment of the post and the replacement bridge would be in generally in the same location as the existing bridge but would encompass a larger footprint to include a sidewalk, see figure below. The bridge would support an approximately 10-inch existing sewer line, two (2) four-inch conduits for future power, two (2) four-inch conduits for future telecommunications, and one (1) one-inch conduit for bridge luminaires. The vehicle speed limit is expected to be 35 miles per hour (MPH) maximum with a Class 40 loading. The proposed bridge includes the following improvements:

- **Structure:** The bridge would accommodate two drive lanes along with a raised sidewalk on the south side. The bridge would utilize precast prestressed concrete girders that would span the channel. The deck would be cast-in-place concrete and placed over the girders. New concrete abutments would need to be installed outboard of the existing abutments. The existing piers located in the channel would be cut off at the mudline and removed. The roadway approaches would be asphalt concrete to match the existing roadways. An ADA compliant sidewalk would be incorporated into the new bridge along the southern side to tie into the existing sidewalks.
- **Drainage:** Drainage of the bridge deck would be accomplished on the southern side of the bridge by draining to a detention basin that would treat the runoff before entering Dairy Creek. Drainage on the northside of the bridge would flow directly into Dairy Creek. No existing stormwater drainage exists at the gate and would remain the same post Project.
- **Lighting:** Bridge lighting would match other existing Base bridges, with pedestrian lighting provided at each end and the bridge sidewalk midspan. Light fixtures would be Light Emitting Diode (LED) type matching existing light standards. Power for Project Area lighting would originate from a new 100-amp 120/240-volt rated power distribution pedestal located on Amador Avenue north of the bridge. Power would originate from a new 120/240-volt pole mount transformer, supplied from an existing 12kV overhead circuit. Any required lighting controls would be housed within the new power distribution pedestal.
- **Utilities:** Known utilities at the Project Area include overhead utility lines, a 28-inch CMP storm drain, an 8-inch sewer main, an 8-inch water main, and abandoned 2-inch gas and 8-inch water mains. The existing overhead utility lines and poles would be impacted during construction activities and would be temporarily relocated until the work is completed. An existing 8-inch sewer main is located underneath the north side of the existing bridge and would be removed and replaced with the new bridge. The existing 8-inch water main located south of the bridge is not attached to the existing bridge structure; no impacts to this utility are expected. The existing and abandoned 2-inch gas and 8-inch water main are located outside the prism of the existing bridge but attached to the existing timber bents supporting the bridge. These utilities would be removed and capped on either end of Dairy Creek.

Existing access at the intersection of Hollister Road and Kern Avenue include a manually operated double swing vehicle gate and manually operated padlock pedestrian access gate. The existing vehicle gate is approximately 25-ft wide and is a double swing gate with center post for locking. Improvements would include the following:

ENVIRONMENTAL DETERMINATION

Project Name: **CSLO – Remove and Replace Bridge 104** **Date: 13 July 2023**

- **Vehicle Access Gate:** The proposed vehicle access gate will be modified into a keypad operated sliding gate. Vehicles exiting the area would trigger the gate by a sensor inlayed in the new pavement section. The vehicle keypad would be situated on the driver side of the entry gate, out of the vehicle travel lanes. The gate would be reconfigured to be recessed for standard sized passenger vehicles to que during gate operations outside the vehicle traffic pathways on Hollister Road. The security fencing would be extended to fully enclose this area.
- **Pedestrian Access Gate:** The pedestrian access gate would be located adjacent to the sliding gate on the south side and would connect to the existing sidewalk built within Camp SLO. The existing asphalt ramp up to the concrete sidewalk would be modified to allow for a level landing per ADA requirements. Access for the pedestrian gate would be provided via a pushbutton type combination lock.

A CEQA Initial Study and Mitigated Negative Declaration (IS/MND) has been prepared for the project. Mitigation measures from the IS/MND will be incorporated into the project, see Mitigation, Monitoring and Reporting Program, Appendix A of the IS/MND.

Project specific conditions needed? **No**

This project has been reviewed in accordance with the National Environmental Policy Act (NEPA) and determined to qualify for NEPA Categorical Exclusion (CX) C2: Demolition of non-historic structure, and C1: New construction on previously disturbed lands. **A NEPA Record of Environmental Consideration is REQUIRED, see below.**

Project Proponent (Signature/Date): WOODS.BRIAN.DOUGLAS.1383139135 Digitally signed by WOODS.BRIAN.DOUGLAS.1383139135 Date: 2023.07.19 13:09:06 -07'00'

Brian Woods
Project Manager, CANG Facilities & Infrastructure
805.748.1232 Office

Determined by (Signature/Date): BRYCESON.DOUGLAS.A.1260632503 Digitally signed by BRYCESON.DOUGLAS.A.1260632503 Date: 2023.07.19 13:19:00 -07'00'

Douglas Bryceson
Branch Chief, Environmental Programs
916.854.1474 Office

ENVIRONMENTAL DETERMINATION

Project Name: **CSLO – Remove and Replace Bridge 104** **Date: 13 July 2023**



Bridge 104 Replacement 28 April 2023

ENVIRONMENTAL DETERMINATION

Project Name: CSLO – Remove and Replace Bridge 104 **Date: 13 July 2023**

Enviro tracking #	ARNG RECORD OF ENVIRONMENTAL CONSIDERATION	State ARNG

1. Project name: Remove and Replace Bridge 104
2. Project number: (MILCON if applicable) | 3. Date prepared: 28-Apr-23
4. Start date of proposed action (dd-mmm-yy): *NOTE: this must be a future date.*
5. Programmed fiscal year:
6. End date (if applicable):
7. Description and location of the project/proposed action.

a. Location (Include a detailed map if applicable):

The project is located in the main cantonment of Camp San Luis Obispo. Bridge 104 spans Dairy Creek between Amador Ave and the 900 area.

b. Description:

The project will remove and replace Bridge 104 to address the current structural deficiency of the existing bridge. The bridge is located on Kern Ave in the main cantonment of the post and the replacement bridge would be in generally in the same location as the existing bridge but would encompass a larger footprint to include a sidewalk, see figure above. The bridge would support an approximately 10-inch existing sewer line, two (2) four-inch conduits for future power, two (2) four-inch conduits for future telecommunications, and one (1) one-inch conduit for bridge luminaires.

8. Choose one of the following:

☐ An existing environmental assessment* adequately covers the scope of this project. Attach FNSI if EA was completed by another federal agency (non-ARNG).
Date of EA (dd-mmm-yy): Lead Agency:

☐ An existing environmental impact statement* adequately covers the scope of this project.
Date of EIS (dd-mmm-yy): Lead Agency:

☒ After reviewing the screening criteria and completing the ARNG environmental checklist, this project qualifies for a categorical exclusion (select below).
CAT EX Code: C2: Demolition of non-historic structure, and C1: New construction on previously disturbed lands.
CAT EX Code:
CAT EX Code:

☐ This project is exempt from NEPA requirements under the provisions of:
Cite superseding law:

**Copies of the referenced environmental assessment or environmental impact statement can be found in the ARNG Environmental Office within each state.*

9. Remarks (if needed):

WOODS.BRIAN.DOUGLAS.1383139135 Digitally signed by WOODS.BRIAN.DOUGLAS.1383139135 Date: 2023.07.19 13:09:23 -07'00'

Signature of Proponent (requestor)
Name: Major Brian Woods
Date:

BRYCESON.DOUGLAS.A.1260632503 Digitally signed by BRYCESON.DOUGLAS.A.1260632503 Date: 2023.07.19 13:19:18 -07'00'

Signature of Environmental Branch Chief
Name: Douglas Bryceson
Date:

Proponent Information

10. Proponent: CANG Facilities & Infrastructure
11. Address: CANG Sacramento
12. POC: Major Brian Woods
13. Comm. voice: (805) 748-1232
14. Proponent POC e-mail: brian.d.woods26.mil@army.mil

Appendix C

RCEM Modeling Information and Results

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Camp SLO Bridge 3 Replacement

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.91	9.56	8.98	1.99	0.39	1.60	0.68	0.35	0.33	0.02	2,101.64	0.58	0.04	2,129.13
Grading/Excavation	7.72	64.82	79.99	4.90	3.30	1.60	3.30	2.97	0.33	0.16	15,642.96	4.69	0.21	15,822.88
Drainage/Utilities/Sub-Grade	5.42	46.71	55.23	3.86	2.26	1.60	2.40	2.07	0.33	0.11	10,466.24	2.72	0.12	10,570.76
Paving	0.93	12.89	9.44	0.48	0.48	0.00	0.41	0.41	0.00	0.02	2,363.45	0.56	0.08	2,401.76
Maximum (pounds/day)	7.72	64.82	79.99	4.90	3.30	1.60	3.30	2.97	0.33	0.16	15,642.96	4.69	0.21	15,822.88
Total (tons/construction project)	0.34	2.98	3.54	0.24	0.15	0.09	0.15	0.13	0.02	0.01	692.01	0.20	0.01	699.74

Notes:

Project Start Year ->	2023
Project Length (months) ->	6
Total Project Area (acres) ->	0
Maximum Area Disturbed/Day (acres) ->	0
Water Truck Used? ->	Yes

	Total Material Imported/Exported Volume (yd^3/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	2	3	30	30	1,120	40
Drainage/Utilities/Sub-Grade	0	0	0	0	720	40
Paving	13	10	30	30	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 -> Camp SLO Bridge 3 Replacement

Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.06	0.06	0.01	0.00	0.01	0.00	0.00	0.00	0.00	13.87	0.00	0.00	12.75
Grading/Excavation	0.20	1.71	2.11	0.13	0.09	0.04	0.09	0.08	0.01	0.00	412.97	0.12	0.01	378.96
Drainage/Utilities/Sub-Grade	0.13	1.08	1.28	0.09	0.05	0.04	0.06	0.05	0.01	0.00	241.77	0.06	0.00	221.52
Paving	0.01	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.40	0.01	0.00	21.57
Maximum (tons/phase)	0.20	1.71	2.11	0.13	0.09	0.04	0.09	0.08	0.01	0.00	412.97	0.12	0.01	378.96
Total (tons/construction project)	0.34	2.98	3.54	0.24	0.15	0.09	0.15	0.13	0.02	0.01	692.01	0.20	0.01	634.80

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.

Road Construction Emissions Model **Version 9.0.0**

Data Entry Worksheet

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a
yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.
Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type

Project Name	Camp SLO Bridge 3 Replacement	
Construction Start Year	2023	Enter a Year between 2014 and 2040 (inclusive)
Project Type	3	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction
Project Construction Time	6.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the Ione formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)
Project Length	0.03	miles
Total Project Area	0.43	acres
Maximum Area Disturbed/Day	0.16	acres
Water Trucks Used?	1	1. Yes 2. No

Please note that the soil type instructions provided in cells E18 to E2 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

Material Hauling Quantity Input

Material Type	Phase	Haul Truck Capacity (yd^3) (assume 20 if unknown)	Import Volume (yd^3/day)	Export Volume (yd^3/day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		2.01
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	13.44	
Asphalt	Grubbing/Land Clearing			
	Grading/Excavation	20.00		3.21
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	9.78	

Mitigation Options

On-road Fleet Emissions Mitigation	No Mitigation	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer
Off-road Equipment Emissions Mitigation	No Mitigation	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		0.60		1/1/2023
Grading/Excavation		2.40		1/20/2023
Drainage/Utilities/Sub-Grade		2.10		4/3/2023
Paving		0.90		6/6/2023
Totals (Months)		6		

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00
Miles/round trip: Grading/Excavation		30.00		1	30.00
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00
Miles/round trip: Paving		30.00		1	30.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Grading/Excavation (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Draining/Utilities/Sub-Grade (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Paving (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Grubbing/Land Clearing (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.03	0.24	0.01	0.00	0.00	114.20	0.00	0.02	119.56
Tons per const. Period - Grading/Excavation	0.00	0.00	0.01	0.00	0.00	0.00	3.01	0.00	0.00	3.16
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.03	0.24	0.01	0.00	0.00	114.20	0.00	0.02	119.56
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	1.13	0.00	0.00	1.18
Total tons per construction project	0.00	0.00	0.01	0.00	0.00	0.00	4.15	0.00	0.00	4.34

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

Asphalt Hauling Emissions User Input	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
Miles/round trip: Grubbing/Land Clearing		30.00		0	0.00
Miles/round trip: Grading/Excavation		30.00		1	30.00
Miles/round trip: Drainage/Utilities/Sub-Grade		30.00		0	0.00
Miles/round trip: Paving		30.00		1	30.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Grading/Excavation (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Draining/Utilities/Sub-Grade (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Paving (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Grubbing/Land Clearing (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.00	0.03	0.24	0.01	0.00	0.00	114.20	0.00	0.02	119.56
Tons per const. Period - Grading/Excavation	0.00	0.00	0.01	0.00	0.00	0.00	3.01	0.00	0.00	3.16
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.03	0.24	0.01	0.00	0.00	114.20	0.00	0.02	119.56
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	1.13	0.00	0.00	1.18
Total tons per construction project	0.00	0.00	0.01	0.00	0.00	0.00	4.15	0.00	0.00	4.34

Note: Worker commute default values can be overridden in cells D121 through D126.

Worker Commute Emissions User Input	User Override of Worker Commute Default Values	Default Values		
Miles/ one-way trip		20	Calculated Daily Trips	Calculated Daily VMT
One-way trips/day		2		
No. of employees: Grubbing/Land Clearing		5	10	200.00
No. of employees: Grading/Excavation		28	56	1,120.00
No. of employees: Drainage/Utilities/Sub-Grade		18	36	720.00
No. of employees: Paving		8	16	320.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.02	0.91	0.07	0.05	0.02	0.00	317.66	0.00	0.01	319.68
Grading/Excavation (grams/mile)	0.02	0.91	0.07	0.05	0.02	0.00	317.66	0.00	0.01	319.68
Draining/Utilities/Sub-Grade (grams/mile)	0.02	0.91	0.07	0.05	0.02	0.00	317.66	0.00	0.01	319.68
Paving (grams/mile)	0.02	0.91	0.07	0.05	0.02	0.00	317.66	0.00	0.01	319.68
Grubbing/Land Clearing (grams/trip)	1.04	2.75	0.29	0.00	0.00	0.00	68.26	0.07	0.03	79.50
Grading/Excavation (grams/trip)	1.04	2.75	0.29	0.00	0.00	0.00	68.26	0.07	0.03	79.50
Draining/Utilities/Sub-Grade (grams/trip)	1.04	2.75	0.29	0.00	0.00	0.00	68.26	0.07	0.03	79.50
Paving (grams/trip)	1.04	2.75	0.29	0.00	0.00	0.00	68.26	0.07	0.03	79.50
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.03	0.46	0.04	0.02	0.01	0.00	141.57	0.00	0.00	142.71
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.94
Pounds per day - Grading/Excavation	0.17	2.59	0.22	0.11	0.05	0.01	792.79	0.02	0.02	799.17
Tons per const. Period - Grading/Excavation	0.00	0.07	0.01	0.00	0.00	0.00	20.93	0.00	0.00	21.10
Pounds per day - Drainage/Utilities/Sub-Grade	0.11	1.67	0.14	0.07	0.03	0.01	509.65	0.01	0.01	513.75
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.04	0.00	0.00	0.00	0.00	11.77	0.00	0.00	11.87
Pounds per day - Paving	0.05	0.74	0.06	0.03	0.01	0.00	226.51	0.01	0.01	228.33
Tons per const. Period - Paving	0.00	0.01	0.00	0.00	0.00	0.00	2.24	0.00	0.00	2.26
Total tons per construction project	0.01	0.12	0.01	0.01	0.00	0.00	35.88	0.00	0.00	36.17

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

Water Truck Emissions User Input	User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Round Trips/Vehicle/Day	Default Values Round Trips/Vehicle/Day	Calculated Trips/day	User Override of Miles/Round Trip	Default Values Miles/Round Trip	Calculated Daily VMT
Grubbing/Land Clearing - Exhaust		1		5	5		8.00	40.00
Grading/Excavation - Exhaust		1		5	5		8.00	40.00
Drainage/Utilities/Subgrade		1		5	5		8.00	40.00
Paving		1		5	5		8.00	40.00

Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Grading/Excavation (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Draining/Utilities/Sub-Grade (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Paving (grams/mile)	0.04	0.43	3.54	0.12	0.05	0.02	1,726.74	0.00	0.27	1,807.67
Grubbing/Land Clearing (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions	**ROG**	**CO**	**NOx**	**PM10**	**PM2.5**	**SOx**	**CO2**	**CH4**	**N2O**	**CO2e**
Pounds per day - Grubbing/Land Clearing	0.00	0.04	0.36	0.01	0.00	0.00	152.27	0.00	0.02	159.41
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.05
Pounds per day - Grading/Excavation	0.00	0.04	0.36	0.01	0.00	0.00	152.27	0.00	0.02	159.41
Tons per const. Period - Grading/Excavation	0.00	0.00	0.01	0.00	0.00	0.00	4.02	0.00	0.00	4.21
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.04	0.36	0.01	0.00	0.00	152.27	0.00	0.02	159.41
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.01	0.00	0.00	0.00	3.52	0.00	0.00	3.68
Pounds per day - Paving	0.00	0.04	0.36	0.01	0.00	0.00	152.27	0.00	0.02	159.41
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	1.51	0.00	0.00	1.58
Total tons per construction project	0.00	0.00	0.02	0.00	0.00	0.00	10.05	0.00	0.00	10.52

Note: Fugitive dust default values can be overridden in cells D183 through D185.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing		0.16	1.60	0.01	0.33	0.00
Fugitive Dust - Grading/Excavation		0.16	1.60	0.04	0.33	0.01
Fugitive Dust - Drainage/Utilities/Subgrade		0.16	1.60	0.04	0.33	0.01

Off-Road Equipment Emissions

Grubbing/Land Clearing	Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Crawler Tractors	0.44	2.24	5.12	0.20	0.18	0.01	758.27	0.25	0.01	766.45
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Excavators	0.38	6.52	3.10	0.15	0.14	0.01	1,000.21	0.32	0.01	1,010.99
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01	0.00	49.56
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles	Equipment Tier	Type		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
			pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
	Grubbing/Land Clearing	pounds per day	0.88	9.06	8.58	0.36	0.34	0.02	1,807.80	0.57	0.02	1,827.01
	Grubbing/Land Clearing	tons per phase	0.01	0.06	0.06	0.00	0.00	0.00	11.93	0.00	0.00	12.06

Grading/Excavation	Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Cranes	0.35	1.83	3.82	0.16	0.15	0.01	558.82	0.18	0.01	564.84
	2		Model Default Tier	Crawler Tractors	0.89	4.49	10.25	0.40	0.37	0.02	1,516.54	0.49	0.01	1,532.90
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4		Model Default Tier	Excavators	0.75	13.03	6.19	0.30	0.28	0.02	2,000.42	0.65	0.02	2,021.99
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Graders	0.77	3.39	9.31	0.30	0.28	0.01	1,281.71	0.41	0.01	1,295.52
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3		Model Default Tier	Rollers	0.46	5.56	4.83	0.27	0.24	0.01	762.32	0.25	0.01	770.54
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3		Model Default Tier	Rubber Tired Loaders	0.81	4.53	7.96	0.27	0.25	0.02	1,816.68	0.59	0.02	1,836.30
	4		Model Default Tier	Scrapers	3.15	24.55	33.13	1.30	1.20	0.06	5,880.52	1.90	0.05	5,943.88
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01	0.00	49.56
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Tractors/Loaders/Backhoes	0.30	4.46	3.07	0.15	0.14	0.01	603.15	0.20	0.01	609.64
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Grading/Excavation	pounds per day	7.54	62.14	78.92	3.16	2.91	0.15	14,469.49	4.67	0.13	14,625.18
	Grading/Excavation	tons per phase	0.20	1.64	2.08	0.08	0.08	0.00	381.99	0.12	0.00	386.10

Drainage/Utilities/Subgrade	Default Number of Vehicles	Mitigation Option: Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Air Compressors	0.26	2.41	1.74	0.09	0.09	0.00	375.26	0.02	0.00	376.67
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Generator Sets	0.31	3.67	2.72	0.13	0.13	0.01	623.04	0.03	0.00	625.12
	2		Model Default Tier	Graders	0.77	3.39	9.31	0.30	0.28	0.01	1,281.71	0.41	0.01	1,295.52
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Plate Compactors	0.04	0.21	0.25	0.01	0.01	0.00	34.48	0.00	0.00	34.65
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Pumps	0.33	3.73	2.75	0.13	0.13	0.01	623.04	0.03	0.00	625.14
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Rough Terrain Forklifts	0.11	2.29	1.40	0.04	0.04	0.00	333.80	0.11	0.00	337.40
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4		Model Default Tier	Scrapers	3.15	24.55	33.13	1.30	1.20	0.06	5,880.52	1.90	0.05	5,943.88
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01	0.00	49.56
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Tractors/Loaders/Backhoes	0.30	4.46	3.07	0.15	0.14	0.01	603.15	0.20	0.01	609.64
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles	Equipment Tier	Type		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
			pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
	Drainage/Utilities/Sub-Grade	pounds per day	5.31	45.00	54.73	2.18	2.04	0.10	9,804.32	2.71	0.09	9,897.59
	Drainage/Utilities/Sub-Grade	tons per phase	0.12	1.04	1.26	0.05	0.05	0.00	226.48	0.06	0.00	228.63

Paving	Default Number of Vehicles	Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Mitigation Option Default Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	*Program-estimate*				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Pavers	0.19	2.88	1.88	0.09	0.08	0.00	455.22	0.15	0.00	460.13
	1		Model Default Tier	Paving Equipment	0.17	2.56	1.60	0.08	0.07	0.00	394.47	0.13	0.00	398.72
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Rollers	0.15	1.85	1.61	0.09	0.08	0.00	254.11	0.08	0.00	256.85
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1		Model Default Tier	Signal Boards	0.06	0.30	0.36	0.01	0.01	0.00	49.31	0.01	0.00	49.56
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2		Model Default Tier	Tractors/Loaders/Backhoes	0.30	4.46	3.07	0.15	0.14	0.01	603.15	0.20	0.01	609.64
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	pounds per day	0.88	12.06	8.53	0.42	0.39	0.02	1,756.26	0.56	0.02	1,774.90
Paving	tons per phase	0.01	0.12	0.08	0.00	0.00	0.00	17.39	0.01	0.00	17.57
Total Emissions all Phases (tons per construction period) =>		0.34	2.86	3.49	0.14	0.13	0.01	637.79	0.20	0.01	644.37

Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		221		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws		81		8
Cranes		231		8
Crawler Tractors		212		8
Crushing/Proc. Equipment		85		8
Excavators		158		8
Forklifts		89		8
Generator Sets		84		8
Graders		187		8
Off-Highway Tractors		124		8
Off-Highway Trucks		402		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		168		8
Pavers		130		8
Paving Equipment		132		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		80		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		247		8
Rubber Tired Loaders		203		8
Scrapers		367		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		263		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		97		8
Trenchers		78		8
Welders		46		8

END OF DATA ENTRY SHEET

Appendix D

Biological Resources Report

Biological Resources Report

Camp San Luis Obispo Vehicular Bridge 3 Replacement Project

California Military Department

March 10, 2023



Biological Resources Report
Camp San Luis Obispo Vehicular Bridge 3 Replacement Project

This document has been prepared for:

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March 10, 2023

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Appendix C List of Species Detected On-site

Table C-12.1. Plant Species Observed On-site

Table C-12.2. List of Terrestrial Wildlife Detected On-site

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Table 12.4. Bird Species Detected On-site

Appendix D Site Visit Photographs

Appendix E Database Search Results (CNDDB, CNPS, IPaC, NMFS)

Appendix F Essential Fish Habitat Mapper Report

Acronyms and Abbreviations

BRR	Biological Resources Report
BSA	Biological Study Area
CalEPA	California Environmental Protection Agency
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
CNDDB	California Natural Diversity Database
CRPR	California Rare Plant Ranking
CCRWQCB	Central Coast Regional Water Quality Control Board
CWA	Clean Water Act
EEZ	U.S. Exclusive Economic Zone
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
FGC	California Fish and Game Code
FMP	Fishery Management Plan
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Conservation
MBPA	California Migratory Bird Protection Act
MBTA	federal Migratory Bird Treaty Act
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NWI	National Wetlands Inventory
NPPA	Native Plant Protection Act
NCCP	Natural Community Conservation Planning
OBL	Obligate
OHWM	Ordinary High Water Mark
PFMC	Pacific Fisheries Management Council
RWQCB	Regional Water Quality Control Board
SFA	Sustainable Fisheries Act
SNCs	Sensitive Natural Communities
SR	State Route
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USC	United States Code
USGS	U.S. Geological Survey

1. Introduction

The purpose of this Biological Resources Report (BRR) is to investigate and determine which sensitive biological resources (if any), including plant and wildlife species and their habitat, may occur in the footprint or vicinity of the Camp San Luis Obispo (CSLO) Vehicular Bridge 3 Replacement Project (hereafter "Project," described below). Species listed as endangered or threatened under the federal or state Endangered Species Act (ESA and CESA respectively) or their designated critical habitat, as well as California special status species and habitats, are the primary focus of this BRR. Common species without special protections are not considered in this BRR. The purpose of the BRR is to inform California Environmental Quality Act (CEQA) analysis and Project permit applications.

1.1 Project Purpose and Goals

The California Military Department (CMD) is proposing to remove and replace a vehicular gate and a vehicular bridge (Bridge 3). The existing bridge is currently closed to vehicular traffic (with concrete barricades) due to its failing condition. The Project would allow access between the western and eastern portions of CSLO along Kern Avenue and improve overall safety and vehicular access.

1.2 Project Location

The Project is located within CSLO (**Appendix A, Figure 1**). CSLO is located approximately 3 linear miles west of the City of San Luis Obispo, in west central San Luis Obispo County. CSLO encompasses approximately 5,612 acres, 622 acres of which are developed. Access to CSLO is provided via Highway 1. CSLO is approximately 6.5 miles inland.

The proposed gate to be replaced is located at the western entrance to CSLO at the intersection of Hollister Avenue and Kern Avenue (**Appendix A, Figure 2**). Bridge 3 is located above Dairy Creek just west of the intersection of Amador Avenue and Kern Avenue within CSLO (**Appendix A**, **Figure 2**). Administrative buildings and other facilities affiliated with CSLO are located immediately adjacent to the Project Area.

Cuesta College, the County of San Luis Obispo Jail, and the California Men's Colony (a state prison facility) are located immediately adjacent. El Chorro Regional Park is located approximately 0.4 miles to the north. Other adjacent property is largely undeveloped, privately-owned, and utilized for cattle grazing.

1.3 Project Area Description

CSLO served as an Infantry Division Camp and Cantonment Area for the U.S. Army during World War II. Today, CSLO is a high-quality training camp with field and garrison facilities. CSLO provides operational, logistical support, and training to civilian and military agencies at the local, state, and federal level, including the California Army and Air National Guard, the U.S. Coast Guard reserve, California Specialized Training Institute, the U.S. Army Reserve, the California Conservation Corps, Cuesta Community College, and the California Department of Transportation (Caltrans) (Militarybases.com 2021).

2. Project Description

2.1 Proposed Project

CMD is proposing to replace an existing vehicular gate and a vehicular bridge (Bridge 3) to address the current structural deficiency of the existing bridge. The replacement bridge would be in generally the same location as the existing bridge but would encompass a larger footprint to include a sidewalk. The bridge would utilize precast prestressed concrete girders that would span the channel. New concrete abutments would need to be installed outboard of the existing abutments. The existing piers located in the channel would be cut off at the mudline and removed.

2.2 Definition of the Project Area

The Project footprint (hereafter “Project Area”) is considered the area of ground disturbance necessary to implement the Project, and equates to 1.18 acres (**Appendix A, Figure 2**).

2.3 Construction Schedule & Equipment

Schedule

The Project would likely commence in spring of 2024 and last anywhere from six to nine months. Work within the channel and adjacent jurisdictional areas would be limited to the dry season (June 15-October 15).

Equipment

The Project would likely require the following construction equipment: excavator, skid dozer, skid dozer with drill bit, skid dozer with front loader, transfer trucks, chipper, compressor, bulldozer, sweeper, flatbed truck, forklift, crane truck, concrete trucks, overlay machine, materials truck, AC machine, large roller, small roller, and pile driver.

2.4 Other Public Agencies Whose Approval is Required

The following regulatory documentation is expected to be required for the Project:

– National Environmental Policy Act (NEPA) Categorical Exclusion, with CMD as the lead agency;
– CEQA: Initial Study/Proposed Mitigated Negative Declaration, with the CMD as the lead agency;
– Section 404 of the Clean Water Act (CWA) Nationwide Permit from the U.S. Army Corps of Engineers (USACE) for impacts to regulated Waters, including wetlands;
– Section 401 of the CWA Water Quality Certification from the Central Coast Regional Water Quality Control Board (CCRWQCB) for impacts to regulated Waters, including wetlands;
– Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) for impacts to riparian habitat during bridge replacement;
– Formal or informal consultation with the National Marine Fisheries Service (NMFS) under section 7 of the ESA for impacts to listed species and critical habitat.

3. Regulatory Background

The following is an overview of agencies that have potential oversight of the proposed Project related to biological resources. The regulatory setting is divided into sections on federal and state jurisdiction. The Project does not fall under any local jurisdiction.

3.1 Federal Jurisdiction

National Environmental Policy Act (NEPA)

The NEPA of 1969 requires federal agencies to prepare environmental documentation that discloses to decision-makers and the interested public a clear, accurate description of potential environmental effects resulting from proposed federal actions and reasonable alternatives to those actions. Through NEPA, the U.S. Congress directed federal agencies to integrate environmental factors in their planning and decision-making processes and encourage and facilitate public involvement in decisions that affect the quality of the human environment. Federal agencies are required to consider the environmental effects of a Proposed Action, alternatives to the Proposed Action, and a No Action alternative (assessing the potential environmental effects of not undertaking the Proposed Action).

The CMD is the NEPA Lead Agency and is authorized to adopt NEPA Categorical Exclusions. The National Guard Bureau (NGB) is responsible for approving Environmental Assessments and Environmental Impact Statements prepared by CMD pursuant to NEPA. The CMD will prepare NEPA documentation for the proposed Project prior to discretionary approval of the Project.

Endangered Species Act (ESA)

The ESA of 1973 (16 United States Code [USC] 1531 et seq.) establishes a national policy that all federal departments and agencies must adhere to for the conservation of threatened and endangered species and their ecosystems. The Secretary of the Interior and the Secretary of Commerce are designated in the ESA as responsible for: (1) maintaining a list of species likely to become endangered within the foreseeable future throughout all or a significant portion of its range (threatened) and that are currently in danger of extinction throughout all or a significant portion of its range (endangered); (2) carrying out programs for the conservation of these species; and (3) rendering opinions regarding the impact of proposed federal actions on listed species. The ESA also outlines what constitutes unlawful taking, importation, sale, and possession of listed species and specifies civil and criminal penalties for unlawful activities.

Pursuant to the requirements of the ESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed or proposed species may be present in the project region, and whether the proposed project would result in a “take” of such species. The ESA prohibits “take” of a single threatened and endangered species except under certain circumstances and only with authorization from the USFWS or the National Oceanic and Atmospheric Administration (NOAA) Fisheries through a permit under section 7 (for federal entities or federal actions) or 10(a) (for non-federal entities) of the Act. “Take” under the ESA includes activities such as “harass, harm, pursue, hunt shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS regulations define harm to include “significant habitat modification or degradation.” On June 29, 1995, a U.S. Supreme Court ruling further defined harm to include habitat modification “…where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the ESA or result in the destruction or adverse modification of critical habitat for such species (16 USC 1536[3][4]). If it is determined that a project may result in the "take" of a federally-listed species, consultation would be required under section 7 or Section 10 of the ESA.

Critical habitat is defined by the ESA as a specific geographic area containing features essential for the conservation of an endangered or threatened species. Under section 7 of the ESA, critical habitat should be evaluated if designated for federally-listed species that may be present in the project's Action Area (federally designated term for a "Project Study Boundary", "Project Area", or "Biological Study Area").

Habitat Conservation Plans (HCPs)

Conservation plans were incorporated into the ESA in 1982 (Sections 10(a)(1)(B) and 10(a)(2)(A) of the ESA, as amended) to create a pathway for take exemptions under the Act for federal and non-federal entities (previously prohibited under Section 9 of the Act). Habitat Conservation Plans (HCPs) are planning documents that provide measures to minimize or mitigate project impacts to listed or candidate species (as well as eagles, following 2011 guidance) at an ecosystem versus single-species level. An HCP provides a degree of assurance for private entities that measures agreed upon in the HCP by federal regulators and the entity would be upheld and not altered for the lifespan of the document, and no additional obligations (financial, land use, or other) would be required at a later date with respect to the species covered in the HCP (referred to as the "No Surprises Rule"; 63 FR 8859). Requirements for issuance of an HCP require that all take is incidental, take would be minimized and mitigated to the maximum extent practical, adequate funds are available to implement the plan, and the incidental take would not appreciably reduce the survival and recovery potential of the species, among others. HCPs also must comply with the Five Point Policy (65 FR 35242) that requires the incorporation of biological goals and objectives for each species in the document, adaptive management, monitoring, a set time frame for implementation, and public participation through the NEPA process.

Habitat Conservation Plans That Overlap the Project

The Project Area and BSA do not overlap any existing active or proposed HCPs according to a current list from the USFW Environmental Conservation Online System database (USFWS 2021a), and the CDFW list of HCPs and Natural Community Conservation Planning (NCCP)s (CDFW 2021a).

Programmatic Biological Opinion (PBO)

The USFWS issued a PBO covering training and operation and maintenance activities within CSLO and the resulting potentially effects on the following federally-listed species: California Red-legged Frog (*Rana draytonii*), Least Bell's vireo (*Vireo bellii pusillus*), and the Chorro Creek bog thistle (*Cirsium fontinale var. obispoense*; USFWS 2015). The proposed Project involving gate and bridge replacements is a repair project of existing facilities, thus Project area is~~activities are~~ covered by the existing PBO. Conservation measures following the detailed guidance in the PBO is included in **Section 7.1**.

Executive Order 13112, Invasive Species

Executive Order 13112 was issued in 1999 to enhance federal coordination and response to the complex and accelerating problem of invasive species. It provides policy direction to promote coordinated efforts of federal, state, and local agencies in monitoring, detecting, preventing, evaluating, managing, and controlling

the spread of invasive species and increasing the effectiveness of scientific research and public outreach affecting the spread and impacts of invasive species.

Migratory Bird Treaty Act (MBTA)

The MBTA of 1918 (16 USC 703-712) as amended established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. A migratory bird is defined as any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. The MBTA prohibits the take, possession, buying, selling, purchasing, or bartering of any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Only exotic species such as Rock Pigeons (*Columba livia*), House Sparrows (*Passer domesticus*), and European Starlings (*Sturnus vulgaris*) are exempt from protection.

Clean Water Act (CWA)

The CWA (1977, as amended) established the basic structure for regulating discharges of pollutants into waters of the U.S. It gives the U.S. Environmental Protection Agency (EPA) the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, without a permit under its provisions.

Discharge of fill material into “waters of the U.S.,” including wetlands, is regulated by the USACE under Section 404 of the CWA (33 USC 1251-1376). USACE regulations implementing Section 404 define “waters of the U.S.” to include intrastate waters (such as, lakes, rivers, streams, wetlands, and natural ponds) that the use, degradation, or destruction of could affect interstate or foreign commerce. Wetlands are defined for regulatory purposes as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3; 40 CFR 230.3). The placement of structures in “navigable waters of the U.S.” is also regulated by the USACE under Section 10 of the Federal Rivers and Harbors Act (33 USC 401 et seq.). Projects are approved by USACE under standard (i.e., individual) or general (i.e., nationwide, programmatic, or regional) permits. The type of permit is determined by the USACE and based on project parameters.

The Fish and Wildlife Coordination Act requires consultation with the USFWS, NFMS, and responsible state wildlife agency for any federally authorized action to control or modify surface waters. Therefore, any project proposed or permitted by the USACE under the CWA Section 404 must also be reviewed by the federal wildlife agencies and CDFW.

Section 401 of the CWA requires any applicant for a federal license or permit, which involves an activity that may result in a discharge of a pollutant into waters of the U.S., obtain a certification that the discharge will comply with applicable effluent limitations and water quality standards. CWA 401 certifications are issued by Regional Water Quality Control Boards (RWQCBs) under the California Environmental Protection Agency (CalEPA).

Executive Order 11990

Executive Order 11990 (1977) furthers the protection of wetlands under NEPA through avoidance of long and short-term adverse impacts associated with the destruction or modification of wetlands where practicable. The order requires all federal agencies managing federal lands, sponsoring federal projects, or

funding state or local projects to assess the effects of their actions on wetlands. The agencies are required to follow avoidance, mitigation, and preservation procedures. The Presidential Wetland Policy of 1993 and subsequent reaffirmation of the policy in 1995 supports effective protection and restoration of wetlands, while advocating for increased fairness of federal regulatory programs.

Bald and Golden Eagle Protection Act

The Bald Eagle Protection Act was originally enacted in 1940 to protect the national emblem of the United States, the Bald Eagle (*Haliaeetus leucocephalus*). At that time, the Bald Eagle was experiencing significant population pressures from hunting, egg collection, and habitat loss (Buehler 2020). This Act was expanded upon in 1962 to include protections for the Golden Eagle (*Aquila chrysaetos*). Similarly, the Golden Eagle was also experiencing precipitous population declines due to habitat loss, hunting, and electrocution from power lines (Kochert et al. 2020).

The current federal statute as amended (16 U.S.C. 668-668d) includes criminal penalties for anyone, including individuals, associations, partnerships, and corporations who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or in any manner any bald eagle commonly known as the American eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof” without a permit (16 U.S.C. § 668a). “Take” is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” (16 U.S.C. § 668c). “Disturb” is defined as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (50 CFR 22.3). Broadly construed, “take” may be applied to the protection of habitat around nest sites (Wisch 2002). Civil and criminal penalties may include monetary fines, imprisonment, a cancellation of grazing agreements on federal land, and a loss of property that was used in violating the Act (e.g., boat, gun, or car). According to the USFWS, “a violation of the Act can result in a fine of up to $100,000 ($200,000 for organizations), imprisonment for one year, or both, for a first offense. Penalties increase substantially for additional offenses, and a second violation of this Act is a felony” (USFWS 2016). However, the Act allows for Bureau of Indian Affairs certified tribal members to use eagles and eagle parts for religious ceremonies, as well as exceptions for scientific or educational purposes, falconry, and in cases of livestock depredation (16 U.S.C. § 668a). Any employee of the Department of the Interior (DOI) may enforce the provisions of the statute and may arrest individuals for violations (16 U.S.C. § 668b).

In the case of development projects, a permit may be required if the project activity is near an active or inactive eagle nest, roosting site, or foraging site. This is particularly true if the project is near breeding habitat (as opposed to wintering habitat or migratory stop-over sites). The Act applies to all activities that may impact eagles, including projects without a federal nexus. If there is a possibility that the project could “non-purposefully take” eagles (unavoidable take associated with, but not the purpose of an activity) the USFWS may issue a programmatic take permit. In this case, the permit is subject to conditions or mitigation measures to minimize impacts. Post-construction monitoring and annual reports may also be required (50 CFR 22.26).

Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1976

The MSFCMA (16 U.S.C. 1801 et seq.), as amended, provides the federal government with the authority to manage fisheries in the U.S. Exclusive Economic Zone (EEZ) (from state waters which end three nautical miles offshore to a distance of 200 nautical miles). In addition, the Act mandates inter-agency cooperation in achieving protection, conservation, and enhancement of Essential Fish Habitat (EFH). The Act defines

EFH as “Those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” For the purpose of interpreting the definition of EFH: 'waters' include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; 'substrate' includes sediment, hard bottom, structures underlying the waters, and associated biological communities; 'necessary' means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and “spawning, breeding, feeding, or growth to maturity” covers a species' full life cycle” (50 CFR 600.10).

EFH guidelines also address Habitat Areas of Particular Concern (HAPCs) that should be evaluated within EFH. HAPCs may include both designated areas and designated habitat types. HAPCs are designated by the Fishery Management Council based on:

– “The importance of the ecological function provided by the habitat;
– The extent to which the habitat is sensitive to human-induced environmental degradation;
– Whether, and to what extent, development activities are or would be stressing the habitat type; and
– The rarity of the habitat type” (PFMC 2014).

EFH designations serve to highlight the importance of habitat conservation for sustainable fisheries and sustaining valuable fish populations. EFH relates directly to the physical fish habitat and indirectly to factors that contribute to degradation of this habitat. Important features of EFH that deserve attention are adequate water quality, temperature, food source, water depth, and cover/vegetation. Adverse effects to EFH are considered to be “any impact that reduces quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality and/or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions” (50 CFR 600.10). Federal agencies are required to consult with NMFS regarding any actions (may include funding, permitting, or activities) that may adversely impact EFH.

Sustainable Fisheries Act (SFA)

The SFA of 1996 (Public Law 104-107) serves as an amendment to the MSFCMA to “authorize appropriations, to provide for sustainable fisheries, and for other purposes”. The SFA includes requirements for describing EFH in Fishery Management Plans (FMPs) and also mandates the protection of EFH. According to the SFA, “[o]ne of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.” This act also mandates the delineation of EFH for all managed species.

3.2 State Jurisdiction

California Environmental Quality Act (CEQA)

CEQA applies to certain activities of state and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project." A project is an activity undertaken by a public agency or a private activity which must receive some discretionary approval. Under CEQA, a variety of technical studies including biological, cultural, traffic, and air quality studies as well as research and professional knowledge are considered to determine whether the project may have an “adverse effect”

on the environment. Lead agencies are charged with evaluating the best available data when determining what specifically should be considered an “adverse effect” to the environment.

Porter-Cologne Water Quality Act

The Porter-Cologne Act provides for statewide coordination of water quality regulations by establishing the California State Water Resources Control Board. The State Board is the statewide authority that oversees nine separate RWQCBs that collectively oversee water quality at regional and local levels. California RWQCBs issue CWA Section 401 Water Quality Certifications for possible pollutant discharges into waters of the U.S. or State. The CCRWQCB may also regulate riparian areas as important buffers that prevent discharge and other negative impacts to Waters of the State. On April 2, 2019, the California State Water Resources Control Board adopted new definitions and procedures for discharges of dredged or fill material to Waters of the State.

California Endangered Species Act (CESA)

The CESA includes provisions for the protection and management of species listed by the State of California as endangered, threatened, or designated as candidates for such listing (California Fish and Game Code [FGC] Sections 2050 through 2085). CESA generally parallels the main provisions of the ESA and is administered by the CDFW, who maintains a list of state threatened and endangered species as well as candidate species. CESA prohibits the “take” of any species listed as threatened or endangered unless authorized by the CDFW in the form of an Incidental Take Permit. Under FGC, “take” is defined as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

Other State Special Status Species and Communities

The CDFW maintains a list of Species of Special Concern (SSC). These are broadly defined as species that are of concern to the CDFW because of population declines and restricted distributions, and/or they are associated with habitats that are declining in California. The criteria used to define special status species are described by the CDFW. Impacts to special status plants, animals, and sensitive natural communities (SNCs) may be considered significant under CEQA.

State SSC include those plants and wildlife species that have not been formally listed yet are proposed or may qualify as endangered or threatened. In addition, USFWS Birds of Conservation Concern, and CDFW special status invertebrates are considered special status species by the CDFW.

Sensitive Natural Communities (SNCs)

The CDFW provides oversight of habitats (i.e., vegetation communities) listed as Sensitive in the California Natural Diversity Database (CNDDB) and on the California Sensitive Natural Communities List, based on global and state rarity rankings. The natural communities are broken down to alliance and association levels for vegetation types affiliated with ecological sections in California. The alliances on the California Sensitive Natural Communities List coincide with *A Manual of California Vegetation* (Sawyer et al. 2009). The CDFW considers alliances and associations with a state rank of S1 to S3 to be Sensitive. The application of ranking for determination of Sensitive Communities is summarized as follows in Table 3.1 (NatureServe 2021):

Table 3.1. NatureServe Conservation Status Ranks

Name	Calculated Status Rank	Status Description
Score ≤ 1.5	G1, N1, S1	Critically Imperiled
1.5 ≤ Score ≤ 2.5	G2, N2, S2	Imperiled
2.5 ≤ Score ≤ 3.5	G3, N3, S3	Vulnerable
3.5 ≤ Score ≤ 4.5	G4, N4, S4	Apparently Secure
Score > 4.5	G5, N5, S5	Secure

California Fish and Game Code (FGC)

Natural Community Conservation Planning Act

The Natural Community Conservation Act (Sections 2800-2835 of the FGC, as amended) is administered by the CDFW through their NCCP program. The program involves broad-based conservation planning for regions (multispecies and multihabitat coverage that serve as an alternative to project-by-project mitigation), while allowing for compatible economic activity and development. The Act's conservation requirements are more stringent than existing state and federal requirements for mitigation, as it requires that plan preparers actively participate in the recovery of sensitive species and habitats (while conserving ecosystem function, biological diversity, and ecological integrity of habitats). NCCPs are developed in coordination with landowners, regulatory agencies (including the USFWS and NMFS, as appropriate), and environmental organizations. The purpose of NCCPs are to provide a clear framework for project proponents to avoid, minimize, and mitigate impacts to sensitive resources within the coverage area of the NCCP and allow for an adaptive management approach to conservation. NCCPs and HCPs are often combined into one planning document for particular geographic regions of California.

Natural Community Conservation Plans (NCCPs) that Overlap the Project

The Project Area or BSA do not overlap any existing NCCPs (CDFW 2021a).

Native Plant Protection Act

The CDFW administers the Native Plant Protection Act (Sections 1900–1913 of the FGC). These sections of FGC allow the California Fish and Game Commission to designate endangered and rare plant species and to notify landowners of the presence of such species. Plant species on California Native Plant Society's (CNPS) California Rare Plant Ranking (CRPR) Lists 1 and 2 are considered eligible for state listing as endangered or threatened pursuant to the FGC, and the CDFW has oversite of these special status plant species as a trustee agency. As part of the CEQA process, such species should be considered because they meet the definition of threatened or endangered under Sections 2062 and 2067 of the FGC. CRPR List 3 and 4 plants may warrant protection under CEQA Guidelines 15380 only in special circumstances. The CDFW publishes and periodically updates lists of special status species which include, for the most part, the above categories. Additionally, there are 64 plant species designated as "rare" which is a special designation created before plants were rolled into CESA in the 1980s. The CESA and the Native Plant Protection Act (NPPA) require a project to have a "Scientific, Educational, or Management Permit" from the CDFW for activities that would result in "take," possession, import, or export of state-listed plant species including research, seed banking, reintroduction efforts, habitat restoration, and other activities relating to any plant designated state endangered, state threatened, state rare, or state candidate for listing.

Lake or Streambed Alteration Agreement

Streams, lakes, and riparian vegetation that serve as habitat for fish and other wildlife species are subject to jurisdiction by the CDFW under Sections 1600-1616 of the FGC. Any activity that would do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake; generally require a 1602 Lake and Streambed Alteration Agreement (LSAA). The term “stream,” which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if it supports aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Riparian is defined as, “on, or pertaining to, the banks of a stream;” therefore, riparian vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself.” Removal of riparian vegetation also requires a Section 1602 LSAA from the CDFW.

Birds of Prey and Native Nesting Birds

Sections 3503 and 3513 of the FGC prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 specifically prohibits the take, possession, or destruction of any birds in the orders Falconiformes (hawks and eagles) or Strigiformes (owls) and their eggs or nests. These provisions, along with the federal MBTA, essentially serve to protect nesting native birds. Non-native species, including the European Starling, Rock Dove, and House Sparrow, are not afforded protection under the MBTA or FGC.

Fully Protected Species

The CDFW enforces the FGC, which provides protection for “fully protected birds” (Section 3511), “fully protected mammals” (Section 4700), “fully protected reptiles and amphibians” (Section 5050), and “fully protected fish” (Section 5515). As fully protected species, the CDFW cannot authorize any project or action that would result in “take” of these species, even with an incidental take permit.

Migratory Bird Protection Act (MBPA)

The California Migratory Bird Protection Act (MBPA) (FGC Section 3513, as amended) was introduced in the California State Assembly 2019 by Assembly Member Ash Kalra and co-sponsored by the National Audubon Society. The text of the Act specifies that it is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act (16 USC 703-712) before January 1, 2017. This upholds the interpretation of the MBTA under Clinton’s Executive Order 13166, where “take” was defined as both “unintentional as well as intentional.” Governor Gavin Newson signed the Act into law on September 27, 2019.

4. Environmental Conditions

The CSLO covers 5,612 acres and supports a variety of developed and natural and semi-natural habitat types including grassland, chaparral, and montane hardwood-confer woodland (USFWS 2015). Grassland covers about 47 percent of the CSLO. Live fire ranges are present nearby. Support facilities are also present including an unpaved parking area, a fire control tower, and related areas at the south edge of the facility. The Project Area is located within the cantonment, a heavily developed area.

4.1 Climate

The Mediterranean climate is characterized by hot, dry summers and mild, wet winters. Precipitation primarily falls in the form of rain at this low elevation. Most rainfall occurs between October and April with an average annual precipitation of 23.45 inches a year (WRCC 2021). Average winter temperatures range from 41.6 to 65.7 degrees Fahrenheit (WRCC 2021). Average summer temperatures range from 50.4 to 79.5 degrees Fahrenheit (WRCC 2021). San Luis Obispo experiences an average of 6.3 days with highs above 90 degrees Fahrenheit (BestPlaces 2021).

4.2 Topography and Soils

The Project Area and BSA are located on relatively flat roadways and developed land (**Appendix A, Figure 5**. Elevations range between approximately 250 and 255 feet above sea level within the Project Area. The surrounding natural habitat beyond the Camp facilities is rolling hilly terrain.

Soils include Cropley clay, 2 to 9 percent slopes, and Salinas silty clay loam, 2 to 9 percent slopes (NCRS 2021). The NRCS (2021) defines Cropley clay as moderately well drained, typically containing upper horizons of clay (0 to 11 inches), medium horizons of clay (11 to 51 inches), and lower horizons of sandy clay loam (51 to 79 inches), typically occurring in clayey areas. The NRCS (2021) defines Salinas soils as well drained typically containing upper (0 to 26 inches) and lower horizons (26 to 70 inches) of silty clay loam, typically occurring in fine loamy bottoms. A custom soil report for the Project Area is attached as **Appendix B**.

4.3 Habitat Elements

The Project Area at the proposed gate replacement consists of the developed roadway along Kern Avenue and surrounding low vegetation regularly maintained via mowing. Vegetation is composed primarily of non-native grasses and invasive roadside plants. See **Appendix C, Table C-1** for a list of plant species observed on-site. See **Appendix D** for representative site visit photos taken on November 11, 2021.

The Project Area at the proposed bridge replacement consists of the developed roadway, the Dairy Creek riparian corridor, and surrounding cultivated trees and exotic landscaping. The dominant tree species in the riparian corridor along Dairy Creek is arroyo willow (*Salix lasiolepis*). The dominant shrub species in this riparian corridor is poison oak (*Toxicodendron diversilobum*). Numerous invasives were also present in this area.

4.4 Hydrology

The Project Area is located along Dairy Creek, a perennial stream (see **Appendix A, Figure 6**). Dairy Creek is tributary to Chorro Creek. The Project Area is located within approximately 325 feet of the

confluence of Dairy Creek and Chorro Creek. Chorro Creek flows west and discharges to the Pacific Ocean via Morro Bay.

4.5 Habitat Access, Connectivity, and Migratory Corridors

The Project is located within the Pacific Flyway for migratory birds, and the riparian habitat (see freshwater emergent wetlands in **Appendix A, Figure 6**) located along Dairy Creek within the Project Area may provide habitat to support migratory bird stopover use, breeding, or wintering. The Project is located within an “essential connectivity area” and is located within 4.25 miles west of a “natural landscape block” (CDFW 2021b). Based upon this mapping, there are “more permeable” terrestrial migration pathways within 3.5 miles to the north of the Project Area (which is ranked as less permeable to migration). Open space exists in all directions beyond CSLO and is actively grazed. The riparian habitat within the Project Area may be adversely affected by the Project, however this area is along the edge of the larger riparian and wetland complex, and therefore modifications to it would not substantially alter habitat connectivity. Dairy Creek is a fish bearing waterway in the Project Area.

5. Methods

5.1 Scale of Analysis

Investigations were conducted at various spatial scales to evaluate the potential for special status plants and wildlife species to be adversely affected by the Project. For special status plant species, the Project was evaluated at the level of the Project Area (defined in Section 2.2). For special status wildlife species, the Project was evaluated at the level of the Biological Study Area (BSA). For the purposes of this BRR, the BSA includes the Project Area and a circular buffer of 500 feet (radius), see **Appendix A, Figure 3**. The BSA buffer around the Project Area is designed to account for the mobility of wildlife species and construction noise, construction visual disturbance, stormwater runoff, dust, and any other potential direct or indirect impacts. During the reconnaissance biological survey, biological resources, such as vegetation, waters, natural communities, and wildlife occurrences, were investigated within the Project Area and BSA (see Section 6.1). See **Appendix A, Figure 2,** for a map of the Project Area footprint and proposed Project elements, and **Figure 3** for a map of the 500-foot BSA buffer.

5.2 Preliminary Investigation

Database Searches (CNDDB, CNPS, IPaC, and NOAA Fisheries)

A database search for special status plant and wildlife species that may occur in the Project vicinity was conducted by GHD on November 10, 2021. Database searches included the CNDDB RareFind 5 (CDFW 2021b), CNPS Inventory of Rare and Endangered Vascular Plants (CNPS 2021), USFWS Information for Planning and Conservation (IPaC; USFWS 2021b), and the NOAA Fisheries West Coast Region California Species List Tools (NOAA Fisheries 2021b). The nine-quad search area encompassed nine U.S. Geological Survey (USGS) quadrangles (quads) centered on the Project Area quad (San Luis Obispo) and the surrounding eight quads: Atascadero, Morro Bay North, Morro Bay South, Port San Luis, Pismo Beach, Arroyo Grande NE, Lopez Mountain, and Santa Margarita. An official species list from the USFWS was derived using the BSA as the scoping boundary. In addition, citizen science databases were reviewed for additional local wildlife and botanical information within the BSA (BAMVT 2021, Bumble Bee Watch 2021, eBird 2021, iNaturalist 2021).

Plant species on CNPS California Rare Plant Ranking (CRPR) Lists 1 and 2 are considered eligible for state listing as endangered or threatened pursuant to the FGC. The CDFW has oversite of these special status plant species as a trustee agency. As part of the CEQA process, such species should be considered as they meet the definition of threatened or endangered under Sections 2062 and 2067 of the FGC. Scoping for special status plant species included any state or federally-listed plants as well as plant species on CNPS California Rare Plant Ranking (CRPR) Lists 1 and 2. These database searches can be found in **Appendix C**. See **Appendix A**, **Figure 4** for a list of all special status species tracked by CNDDB that are known to occur within a 3-mile radius of the Project Area.

National Wetlands Inventory (NWI)

A search of the NWI was conducted for the Project Area and vicinity; the NWI mapping for the Project can be found in **Appendix A, Figure 6**. According to NWI, the Project Area crosses a freshwater forested/shrub wetland feature (Dairy Creek). The BSA includes a riverine feature (Chorro Creek) to the south. A

delineation of potential waters of the United States, including wetlands, was conducted within the Project Area and is discussed later in this BRR.

5.3 Reconnaissance Biological Survey

The reconnaissance biological survey was conducted on November 11, 2021 by Elizabeth Meisman, GHD Wildlife Biologist. Weather conditions were mild, approximately 64 to 68 degrees Fahrenheit, with a light breeze (Beaufort scale 2) to a moderate breeze (Beaufort scale 4), and clear skies. The survey was conducted on foot within the Project Area as shown in **Appendix A, Figure 2.** The surrounding 500-foot BSA was also assessed; where private property limited access, adjacent land was assessed visually from the CSLO's property. Lists of plant and wildlife species observed during the survey are included in **Appendix C**, and representative photos are included in **Appendix D**.

The survey methods were intended to identify sensitive habitat and detect wildlife activity. Where the habitat allowed the surveyor to walk without risk of damaging nests or dens and surrounding vegetation, the survey included a physical search of the area. This included inspecting the ground, shrubs, and trees for the presence of any wildlife species. Additionally, the bark of vegetation and the ground layer under vegetation were inspected for evidence of wildlife species, such as feathers, pellets, whitewash, scat, tracks, etc. Where the habitat was dense or otherwise impenetrable or inaccessible, observations were made from fixed locations. No protocol-level surveys for special status plants and wildlife, or SNCs were conducted at this time.

The reconnaissance biological survey, in addition to spatial analysis using satellite imagery and database searches of plant and wildlife species documented within or near the Project Area, serves as the basis for determining whether suitable habitat is present in the Project Area for a given species. The presence (or absence) of suitable habitat further informs and determines a species potential to occur in the Project Area (see **Tables 6.1** and **6.2**).

Agency Coordination

Database searches of wildlife and plants centered on the Project USGS 7.5-minute quadrangle (San Luis Obispo) and surrounding eight USGS 7.5-minute quadrangles (Atascadero, Morro Bay North, Morro Bay South, Port San Luis, Pismo Beach, Arroyo Grande NE, Lopez Mountain, and Santa Margarita) were obtained from the CNDDB, CNPS, and NMFS. An official species list was also obtained from the USFWS at the Project level (i.e., the approximate BSA boundary). See **Appendix C** for the database search results.

Wetlands and Other Aquatic Resources

The delineation of potential waters of the United States, including wetlands, was conducted on November 11, 2021 by Kevin Janni, GHD Senior Scientist. The delineation followed the guidance provided in the USACE's *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (2008a) for delineating streams and other waterbodies during field surveys. Additionally, GHD followed the methodology for delineating wetlands outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (2008b). The spatial limits of each potential water of the United States, including wetlands, were recorded using a Global Positioning System (GPS) device capable of sub-meter accuracy.

6. Results

6.1 Summary of General Biological Resources

Based on occurrence records, the reconnaissance biological survey, spatial analysis, and habitat availability, multiple special status plant and wildlife species have a moderate to high potential to occur within the Project Area and/or BSA. Lists of all plant and wildlife species observed during the reconnaissance survey are presented in **Appendix C**. **Tables 6.1, 6.2, and 6.3** include the potential to occur results of plant, SNCs, and wildlife species scoped to occur within the nine-quad search area. **Tables 6.1, 6.2, 6.3**, and the on-site species lists in **Appendix C** are not intended to be comprehensive lists of all species that could occur within the Project Area and/or BSA.

The Project Area is highly human-modified. The majority of the Project Area is paved at both the gate and bridge locations. Vegetation is primarily composed of invasive non-natives and landscaped exotics (see **Table C-1** in **Appendix C**). Some native vegetation is present in the riparian corridor surrounding Dairy Creek. The dominant riparian species in this area are arroyo willow and poison oak. Most tree species within the BSA have been cultivated for landscaping purposes. Streambank slopes are steep and heavily vegetated by poison oak.

6.2 Migration Corridors

The existing gate at the intersection of Kern Avenue with Hollister Avenue is a barrier to most terrestrial mammalian wildlife movement given that it is made of chain-link and spans from ground level to approximately six feet. However, wildlife access into and out of the Project Area and BSA (and CSLO generally) is possible via the nearby Dairy and Chorro Creek riparian corridors. No continuous barriers to terrestrial wildlife movement are anticipated. Given the project is a replacement of existing infrastructure, no migration routes would be impacted by construction or operation of the Project. If the channel of Dairy Creek is wetted at the time of construction, a dewatering plan will be implemented (see **Section 7.1**). Impacts to aquatic habitat connectivity are expected to be minimal and of short duration.

6.3 Sensitive Natural Communities (SNCs)

Six SNCs that are regulated by the CDFW were identified during scoping in the Project vicinity (i.e., the nine-quad search area). Based on habitat evaluations during the reconnaissance survey and delineation of potential waters of the United States, it was determined that there is no suitable habitat present in the Project Area for the any of these SNCs, and justification for exclusion from further consideration is detailed in **Table 6.1**.

However, an additional SNC may be present: the riparian vegetation along Dairy Creek within the Project site. Due to the habitat value and limited distribution, riparian plant communities are considered “special-status natural communities” by the CDFW. If trees and vegetation associated with the riparian habitat along Dairy Creek are to be removed, a Vegetation Management and Replacement Plan will be prepared (see **Section 7.1**).

Table 6.1 summarizes the potential for SNCs documented in the surrounding nine-quad search area to occur within the Project Area.

Table 6.1. Potential for SNCs to Occur in the Project Area

Habitat Type	Global Rank[2]	State Rank[2]	Potential to Occur in the Project Area
Central Dune Scrub	G2	S2.2	**No Potential.** The Project Area is located at an inland location and does not include any dune habitat.
Central Foredunes	G1	S1.2	**No Potential.** The Project Area is located at an inland location and does not include any dune habitat.
Central Maritime Chaparral	G2	S2.2	**No Potential.** The Project Area is located at an inland location and does not include any chapparal habitat.
Coastal and Valley Freshwater Marsh	G3	S2.1	**No Potential.** No marsh or wetland habitat is present within the Project Area.
Coastal Brackish Marsh	G2	S2.1	**No Potential.** The Project Area is located at an inland location and does not include any potentially brackish waters.
Northern Coastal Salt Marsh	G3	S3.2	**No Potential.** The Project Area is located at an inland location and does not include any saltmarsh features.
Riparian Habitat	Unknown	Unknown	**Present.** The Project Area overlaps riparian vegetation (including arroyo willows) along Dairy Creek and may be removed during Project implementation.

Footnotes:

[1] Rankings from CNDDB (November 2021).
[2] Reprinted from CNPS Manual of California Vegetation Online (CNPS 2021a).

Column Header Categories and Abbreviations:

GRank: Global Rank from NatureServe's Heritage Methodology (NatureServe 2021 (ranking according to degree of global imperilment - G1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors; G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors; G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors Subspecies/variety level: "Subspecies/varieties receive a T-rank attached to the G-rank. With the subspecies/varieties, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety" (CDFW 2021b); ? = "Denotes inexact numeric rank" (NatureServe 2021); Q = "Questionable taxonomy that may reduce conservation priority" (NatureServe 2021)

State Rank: State Rank from NatureServe's Heritage Methodology (NatureServe 2021) (ranking according to degree of imperilment in the state (California) – S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state; S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state; S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.

Threat code extensions and their meanings: ".1 – Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat); .2 – Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat); .3 – Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)" (CDFW 2021c).

6.4 Wetlands and Waters

No wetlands were observed on-site. No evidence of hydric soils was observed. Some elements of wetland vegetation were observed, such as giant horsetail (*Equisetum telmateia*, [FACW]) and panicled bulrush (*Scirpus microcarpus*, [OBL]) in the herbaceous layer and arroyo willow (*Salix lasiolepis*, [FACW]) in the tree layer. These species have wetland indicator statuses of Facultative Wetland (FACW; usually occur in wetlands, but occasionally found in non-wetlands) and Obligate (OBL; occur almost always under natural conditions in wetlands); however, these species occurred in non-dominant densities within the project area.

These species were likely dispersed to the site from nearby wetland habitats observed downstream, outside the project area. Other species observed have wetland indicator statuses of Facultative (FAC; equally likely to occur in wetlands and non-wetlands) and Facultative Upland (FACU; usually occur in non-wetlands, but occasionally found in wetlands). A large portion of the site was inundated with poison oak (*Toxicodendron diversilobum*, [FACU]).

Dairy Creek, a First Order stream, was the only aquatic feature observed on-site. First Order streams are perennial streams that carry water throughout the year with no permanently flowing tributaries. The OHWM of Dairy Creek was delineated as shown on Figure 7 (**Appendix A**). Photographs of Dairy Creek are provided in **Appendix D**.

6.5 Special Status Plants

Special Status Plant Species

Federally-listed Plant Species

Nine federally-listed, candidate, or under review plant species that are regulated by the USFWS under the ESA were identified during scoping for the Project Area (i.e., the nine-quad search area). Based on habitat evaluations during the reconnaissance survey, and a database and literature review, it was determined that there is no suitable habitat present in the BSA for the any of these species, and justification for exclusion from further consideration is detailed in **Table 6.2**.

Effects of the proposed Project activities on one federally-listed plant species under the jurisdiction of the USFWS, the Chorro Creek bog thistle, have been previously analyzed (USFWS 2015). There is one documented occurrence of Chorro Creek bog thistle within CSLO, which as of 2012 appears stable (USFWS 2015). However, this occurrence is located several miles northeast of the Project Area (see Figure 3 in USFWS 2015). Extensive annual survey efforts for this species have been conducted throughout CSLO. Thus, the Chorro Creek bog thistle is unlikely to occur in the Project Area and no impacts are anticipated.

State-listed and Special Status Plant Species

Nine state-listed or state rare plant species (five of which are also federally-listed) that are regulated by the CDFW under the CESA were identified during scoping for the Project Area (i.e., the nine-quad search area). Based on habitat evaluations during the reconnaissance survey, and a database and literature review, it was determined that the BSA is unlikely to provide suitable habitat for the majority of these species, and justification for exclusion from further consideration is detailed in **Table 6.2**.

An additional 60 CRPR Lists 1 and 2 plants were identified during scoping for the Project Area (i.e., the nine-quad search area). All 60 state special status plant species were found to have no or low potential to occur in the Project Area, as described in **Table 6.2.**

A list of plant species observed on-site during the wetland delineation and reconnaissance habitat assessment is included in **Appendix C, Table C-1**. No habitat to support special status plants was observed within the Project Area.

Table 6.2 Potential for Special Status Plants to Occur in the Project Area

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
Agrostis hooveri	Hoover's bent grass	None	None	G2	S2	1B.2	Chaparral, cismontane woodland, closed-cone coniferous forest, valley and foothill grassland. Sandy sites. 60-765 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Arctostaphylos luciana	Santa Lucia manzanita	None	None	G2	S2	1B.2	Chaparral, cismontane woodland. On shale (one site says serpentine) outcrops, on slopes, in chaparral. 105-825 m.	**No Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area. Excluded from further consideration.
Arctostaphylos morroensis	Morro manzanita	FT	None	G1	S1	1B.1	Chaparral, cismontane woodland, coastal dunes, coastal scrub. On Baywood sands, usually with chaparral associates. 30-125 m.	**No Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area. Excluded from further consideration.
Arctostaphylos osoensis	Oso manzanita	None	None	G1	S1	1B.2	Chaparral, cismontane woodland. Usually occurs in openings w/in oak woodland on dacite porphyry buttes. 180-275 m.	**No Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area. Excluded from further consideration.
Arctostaphylos pechoensis	Pecho manzanita	None	None	G2	S2	1B.2	Closed-cone coniferous forest, chaparral, coastal scrub. Grows on siliceous shale with other chaparral associates. 60-855 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Arctostaphylos pilosula	Santa Margarita manzanita	None	None	G2?	S2?	1B.2	Closed-cone coniferous forest, chaparral, broadleafed upland forest,	**Low Potential.** No suitable habitat (e.g., forest) within

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
							cismontane woodland. Shale outcrops and slopes; reported growing on decomposed granite or sandstone. 60-1220 m.	the Project Area.
Arctostaphylos rudis	sand mesa manzanita	None	None	G2	S2	1B.2	Chaparral, coastal scrub. On sandy soils in Lompoc/Nipomo area. 20-335 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Arctostaphylos tomentosa ssp. daciticola	dacite manzanita	None	None	G4T1	S1	1B.1	Chaparral, cismontane woodland. Only known from one site in SLO County on dacite porphyry buttes. About 120m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Arenaria paludicola	marsh sandwort	FE	SE	G1	S1	1B.1	Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3-170 m.	**No Potential.** No suitable habitat (e.g., marsh and swamp) within the Project Area. Only two known populations within San Luis Obispo County, one along the southern limits of Morro Bay and the other south of Oceano – both over 7.5 miles from the Project Area (USFWS 2020a). Excluded from further consideration.
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	None	None	G5T2	S2	1B.2	Coastal scrub. Clay soils. 50-385 m.	**No Potential.** No suitable habitat (e.g., coastal scrub) within the Project Area. Project is located ~10 miles inland. Excluded from further

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
								consideration.
Atriplex coulteri	Coulter's saltbush	None	None	G3	S1S2	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. 2-460 m.	**No Potential.** No suitable habitat (e.g., coastal scrub, etc.) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Calochortus obispoensis	San Luis mariposa-lily	None	None	G2	S2	1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Often in serpentine grassland. 15-550 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Calochortus simulans	La Panza mariposa-lily	None	None	G2	S2	1B.3	Valley and foothill grassland, cismontane woodland, chaparral, lower montane coniferous forest. Decomposed granite, or sometimes on serpentine. 150-1160 m.	**Low Potential.** No suitable habitat (e.g., grassland or forest) within the Project Area.
Camissoniopsis hardhamiae	Hardham's evening-primrose	None	None	G2	S2	1B.2	Chaparral, cismontane woodland. Sandy, decomposed carbonate. 60-1000 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Carex comosa	bristly sedge	None	None	G5	S2	2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta Island. -5-1010 m.	~~**Moderate**~~ Low **Potential.** No suitable habitat within the Project Area.
Carex obispoensis	San Luis Obispo sedge	None	None	G3?	S3?	1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub,	**Low Potential.** No suitable habitat (e.g., forest, etc.) within the Project

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
							valley and foothill grassland. Usually in transition zone on sand, clay, serpentine, or gabbro. In seeps. 5-845 m.	Area.
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	None	None	G5T2	S2	1B.2	Valley and foothill grassland, meadows and seeps. Sometimes on serpentine. 9-485 m.	**Low Potential.** No suitable habitat (e.g., native grasslands) within the Project Area.
Caulanthus californicus	California jewelflower	FE	SE	G1	S1	1B.1	Chenopod scrub, valley and foothill grassland, pinyon and juniper woodland. Sandy soils. 65-1860 m.	**Low Potential.** No suitable habitat (e.g., scrub, etc.) within the Project Area.
Ceanothus impressus var. nipomensis	Nipomo Mesa ceanothus	None	None	G3T2	S2	1B.2	Chaparral. Sandy. 10-215 m.	**Low Potential.** No suitable habitat (e.g., chaparral) within the Project Area.
Ceanothus thyrsiflorus var. obispoensis	San Luis Obispo ceanothus	None	None	G5T1	S1	1B.1	Chaparral, cismontane woodland. Dacite. 140-225 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Centromadia parryi ssp. congdonii	Congdon's tarplant	None	None	G3T1T2	S1S2	1B.1	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0-245 m.	**Low Potential.** No suitable habitat (e.g., native grassland) within the Project Area.
Chenopodium littoreum	coastal goosefoot	None	None	G1	S1	1B.2	Coastal dunes. Generally on sandy soils, and on dunes. 5-40 m.	**No Potential.** No suitable habitat (e.g., dunes) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Chlorogalum	dwarf soaproot	None	None	G5T3	S3	1B.2	Chaparral. Serpentine.	**Low Potential.** No

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
pomeridianum var. minus							120-1220 m.	suitable habitat (e.g., chaparral) within the Project Area.
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	FE	SE	G4?T1	S1	1B.2	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m.	**No Potential.** No suitable habitat (e.g., salt marsh) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Chorizanthe aphanantha	Irish Hills spineflower	None	None	G1	S1	1B.1	Chaparral, coastal scrub. Serpentinite, rocky to gravelly. 100-370 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Chorizanthe breweri	Brewer's spineflower	None	None	G3	S3	1B.3	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest. Rocky or gravelly serpentine sites; usually in barren areas. 45-765 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Chorizanthe rectispina	straight-awned spineflower	None	None	G2	S2	1B.3	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral. 45-1040 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Cirsium fontinale var. obispoense	Chorro Creek bog thistle	FE	SE	G2T2	S2	1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Serpentine seeps. 5-385 m.	**Low Potential.** No suitable habitat within the Project Area. Only occurrence within CSLO is located several miles northeast of the Project Area. Despite extensive annual survey efforts, no other

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
								occurrences are known from CSLO. Species is unlikely to occur within the Project Area.
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	None	None	G3G4T2	S2	1B.2	Chaparral. Openings; on serpentinite. Often on steep rocky slopes and along disturbed roadsides. 326-800 m.	**Low Potential.** No suitable habitat (e.g., chaparral and serpentine) within the Project Area.
Cirsium rhothophilum	surf thistle	None	ST	G1	S1	1B.2	Coastal dunes, coastal bluff scrub. Open areas in central dune scrub; usually in coastal dunes. 3-60 m.	**No Potential.** No suitable habitat (e.g., scrub and dunes) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Cladonia firma	popcorn lichen	None	None	G4	S1	2B.1	Coastal dunes, coastal scrub. On soil and detritus on stabilized sand dunes, in pure stands or intermixed with other lichens and mosses forming biotic soil crusts, covering areas up to several meters. 30-80 m.	**No Potential.** No suitable habitat (e.g., scrub and dunes) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Clarkia speciosa ssp. immaculata	Pismo clarkia	FE	SR	G4T1	S1	1B.1	Chaparral, cismontane woodland, valley and foothill grassland. On ancient sand dunes not far from the coast. Sandy soils; openings. 30-185 m.	**No Potential.** No suitable habitat (e.g., chaparral, dunes, etc.) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Delphinium parryi ssp. blochmaniae	dune larkspur	None	None	G4T2	S2	1B.2	Chaparral, coastal dunes (maritime). On rocky areas and dunes.	**No Potential.** No suitable habitat (e.g., chaparral or

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
							18-305 m.	dunes) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	None	None	G4T2	S2	1B.2	Chaparral, valley and foothill grassland. Serpentine. Openings. 60-640 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Delphinium umbraculorum	umbrella larkspur	None	None	G3	S3	1B.3	Cismontane woodland, chaparral. Mesic sites. 215-2075 m.	**Low Potential.** No suitable habitat (e.g., woodland or chaparral) within the Project Area.
Dithyrea maritima	beach spectaclepod	None	ST	G1	S1	1B.1	Coastal dunes, coastal scrub. Sea shores, on sand dunes, and sandy places near the shore. 3-60 m.	**No Potential.** No suitable habitat (e.g., chaparral or dunes) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Dudleya abramsii ssp. bettinae	Betty's dudleya	None	None	G4T2	S2	1B.2	Coastal scrub, valley and foothill grassland, chaparral. On rocky, barren exposures of serpentine within scrub vegetation. 20-250 m.	**Low Potential.** No suitable habitat (e.g., scrub, etc.) within the Project Area. Project is located ~10 miles inland.
Dudleya abramsii ssp. murina	mouse-gray dudleya	None	None	G4T2	S2	1B.3	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine outcrops. 25-535 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	None	None	G3T2	S2	1B.1	Coastal scrub, coastal bluff scrub, chaparral, valley and foothill	**Low Potential.** No suitable habitat (e.g., scrub, etc.)

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
							grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. 5-290 m.	within the Project Area.
Eriastrum luteum	yellow-flowered eriastrum	None	None	G2	S2	1B.2	Broadleafed upland forest, cismontane woodland, chaparral. On bare sandy decomposed granite slopes. 240-580 m.	**Low Potential.** No suitable habitat (e.g., forest, etc.) within the Project Area.
Erigeron blochmaniae	Blochman's leafy daisy	None	None	G2	S2	1B.2	Coastal dunes, coastal scrub. Sand dunes and hills. 0-185 m.	**No Potential.** No suitable habitat (e.g., dune and scrub) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Eriodictyon altissimum	Indian Knob mountainbalm	FE	SE	G1	S1	1B.1	Chaparral (maritime), cismontane woodland, coastal scrub. Ridges in open, disturbed areas within chaparral on Pismo sandstone. 95-245 m.	**No Potential.** No suitable habitat (e.g., chaparral, sandstone, etc.) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Eryngium aristulatum var. hooveri	Hoover's button-celery	None	None	G5T1	S1	1B.1	Vernal pools. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 1-50 m.	**Low Potential.** No suitable habitat (e.g., vernal pools) within the Project Area.
Extriplex joaquinana	San Joaquin spearscale	None	None	G2	S2	1B.2	Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with Distichlis spicata, Frankenia, etc.	**Low Potential.** No suitable habitat (e.g., scrub, etc.) within the Project Area.

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
							0-800 m.	
Fritillaria ojaiensis	Ojai fritillary	None	None	G3	S3	1B.2	Broadleafed upland forest (mesic), chaparral, lower montane coniferous forest, cismontane woodland. Rocky sites. Sometimes on serpentine; sometimes along roadsides. 95-1140 m.	**Low Potential.** No suitable habitat (e.g., forest, etc.) within the Project Area.
Fritillaria viridea	San Benito fritillary	None	None	G2	S2	1B.2	Chaparral, cismontane woodland. Serpentine slopes. Sometimes on rocky streambanks. 365-1360 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Horkelia cuneata var. puberula	mesa horkelia	None	None	G4T1	S1	1B.1	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Horkelia cuneata var. sericea	Kellogg's horkelia	None	None	G4T1?	S1?	1B.1	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. 5-430 m.	**Low Potential.** No suitable habitat (e.g., forest, etc.) within the Project Area.
Lasthenia californica ssp. macrantha	perennial goldfields	None	None	G3T2	S2	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. 5-185 m.	**Low Potential.** No suitable habitat (e.g., scrub and dune) within the Project Area. Project is located ~10 miles inland.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None	None	G4T2	S2	1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m.	**Low Potential.** No suitable habitat (e.g., salt marsh, etc.) within the Project Area.

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
Layia jonesii	Jones' layia	None	None	G2	S2	1B.2	Chaparral, valley and foothill grassland. Clay soils and serpentine outcrops. 5-245 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Lupinus ludovicianus	San Luis Obispo County lupine	None	None	G1	S1	1B.2	Chaparral, cismontane woodland. Open areas in sandy soil, Santa Margarita formation. 85-525 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Malacothamnus gracilis	slender bush-mallow	None	None	G1Q	S1	1B.1	Chaparral. Dry, rocky slopes. 150-335 m.	**Low Potential.** No suitable habitat (e.g., chaparral) within the Project Area.
Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	None	None	G3T2Q	S2	1B.2	Chaparral. Dry rocky slopes, mostly near summits, but occasionally extending down canyons to the sea. 3-670 m.	**Low Potential.** No suitable habitat (e.g., chaparral) within the Project Area.
Monardella palmeri	Palmer's monardella	None	None	G2	S2	1B.2	Cismontane woodland, chaparral. On serpentine, often found associated with Sargent cypress forests. 90-945 m.	**Low Potential.** No suitable habitat (e.g., woodland or chaparral) within the Project Area.
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	None	None	G3T2	S2	1B.2	Coastal dunes, coastal scrub, chaparral, cismontane woodland. Sandy soils. 20-305 m.	**No Potential.** No suitable habitat (e.g., dunes, etc.) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Monolopia gracilens	woodland woollythreads	None	None	G3	S3	1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broadleafed upland forest, North Coast coniferous forest.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
							Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. 120-975 m.	
Muhlenbergia utilis	aparejo grass	None	None	G4	S2S3	2B.2	Meadows and seeps, marshes and swamps, chaparral, coastal scrub, cismontane woodland. Sometimes alkaline, sometimes serpentinite. 25-2325 m.	**Low Potential.** No suitable habitat (e.g., meadow, etc.) within the Project Area. The riparian corridor surrounding Dairy Creek is unlikely to support this species. Closest known record is from 2017, ~3.25 miles northeast of the Project Area (CDFW 2021b).
Navarretia fossalis	spreading navarretia	FT	None	G2	S2	1B.1	Vernal pools, chenopod scrub, marshes and swamps, playas. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrouded by other habitat types. 15-850 m.	**No Potential.** No suitable habitat (e.g., vernal pools, etc.) within the Project Area. Excluded from further consideration.
Navarretia nigelliformis ssp. radians	shining navarretia	None	None	G4T2	S2	1B.2	Cismontane woodland, valley and foothill grassland, vernal pools. Apparently in grassland, and not necessarily in vernal pools. 60-975 m.	**Low Potential.** No suitable habitat (e.g., woodland, etc.) within the Project Area.
Nemacaulis denudata var. denudata	coast woolly-heads	None	None	G3G4T2	S2	1B.2	Coastal dunes. 0-5 m.	**No Potential.** No suitable habitat (e.g., dunes, etc.) within the Project

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
								Area. Project is located ~10 miles inland. Excluded from further consideration.
Plagiobothrys uncinatus	hooked popcornflower	None	None	G2	S2	1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Sandstone outcrops and canyon sides; often in burned or disturbed areas. 210-855 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Poa diaboli	Diablo Canyon blue grass	None	None	G2	S2	1B.2	Chaparral (mesic sites), cismontane woodland, coastal scrub, closed-cone coniferous forest. Shale, sometimes burned areas. 115-400 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Sanicula maritima	adobe sanicle	None	SR	G2	S2	1B.1	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie. Moist clay or ultramafic soils. 15-215 m.	**Low Potential.** No suitable habitat (e.g., meadows, etc.) within the Project Area.
Scrophularia atrata	black-flowered figwort	None	None	G2?	S2?	1B.2	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub. Sand, diatomaceous shales, and soils derived from other parent material; around swales and in sand dunes. 10-445 m.	**Low Potential.** No suitable habitat (e.g., forest, etc.) within the Project Area. Project is located ~10 miles inland.
Senecio aphanactis	chaparral ragwort	None	None	G3	S2	2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-1020 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area. Project is located

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
								~10 miles inland.
Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	None	SR	G3T1	S1	1B.2	Closed-cone coniferous forest, chaparral Rocky serpentine soil; associated with Sargent cypress forest. 600-800 m.	**No Potential.** No suitable habitat (e.g., forest) within the Project Area. Excluded from further consideration.
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	None	None	G2T2	S2	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 90-1040 m.	**Low Potential.** No suitable habitat (e.g., chaparral, etc.) within the Project Area.
Suaeda californica	California seablite	FE	None	G1	S1	1B.1	Marshes and swamps. Margins of coastal salt marshes. 0-5 m.	**No Potential.** No suitable habitat (e.g., salt marsh) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Sulcaria isidiifera	splitting yarn lichen	None	None	G1	S1	1B.1	Coastal scrub. On branches of oaks and shrubs in old growth coastal scrub. 20-55 m.	**No Potential.** No suitable habitat (e.g., coastal scrub) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.
Sulcaria spiralifera	twisted horsehair lichen	None	None	G3G4	S2	1B.2	North Coast coniferous forest (immediate coast), coastal dunes. Usually on conifers. 0-90 m.	**No Potential.** No suitable habitat (e.g., coastal forest and dunes) within the Project Area. Project is located ~10 miles inland. Excluded from further consideration.

Scientific Name	Common Name	FESA	CESA	Global Rank[2]	State Rank[2]	CRPR[2]	Habitat Requirements[1]	Potential to Occur in the Project Area
Trifolium hydrophilum	saline clover	None	None	G2	S2	1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 1-335 m.	**Low Potential.** No suitable habitat within the Project Area. Only one known location within the Project vicinity (from 1998 along Laguna Lake, ~5 miles southeast of the Project Area; CDFW 2021b).
Tropidocarpum capparideum	caper-fruited tropidocarpum	None	None	G1	S1	1B.1	Valley and foothill grassland. Alkaline clay. 0-360 m.	**Low Potential.** No suitable habitat (e.g., grassland) within the Project Area.

Footnotes:

[1] Habitat information from CNDDB (CDFW 2021b) and CNPS (CNPS 2021).

[2] Rankings from CNDDB (October 2021).

Column Header Categories and Abbreviations:

FESA: Listing status under the federal Endangered Species Act (ESA)

FE = Federal Endangered; FT = Federal Threatened; FC = Federal Candidate; FD = Federally Delisted

CESA: Listing status under the California state Endangered Species Act (CESA)

SE = State Endangered; SD = State Delisted; ST = State Threatened.

GRank: Global Rank from NatureServe's Heritage Methodology (NatureServe 2021) (ranking according to degree of global imperilment - G1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors; G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors; G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors; G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors; G5 = Secure—Common; widespread and abundant. Subspecies/variety level: "Subspecies/varieties receive a T-rank attached to the G-rank. With the subspecies/varieties, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety" (CDFW 2021c); ? = "Denotes inexact numeric rank" (NatureServe 2021); Q = "Questionable taxonomy that may reduce conservation priority" (NatureServe 2021)

SRank: State Rank from NatureServe's Heritage Methodology (NatureServe 2021) (ranking according to degree of imperilment in the state (California) - S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state; S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state; S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state; S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors; S5 = Secure—Common, widespread, and abundant in the state; SNR = State Not Ranked.

CRPR: CNPS rankings for rare plants (CNPS 2021) - 1A = Plants presumed extinct in California; 1B = Plants rare, threatened or endangered in California and elsewhere; 2 = Plants rare, threatened, or endangered in California, but more common elsewhere; 3 = Plants about which more information is needed (a review list); 4 = Plants of limited distribution (a watch list); n/a = not applicable; Threat Code extensions and their meanings: ".1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat); .2 – Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat); .3 – Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)" (CDFW 2021c).

Potential to Occur:

No Potential: Habitat in and adjacent to the BSA is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Low Potential: Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found in the BSA.

Moderate Potential: Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found in the BSA.

High Potential: All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on in the BSA

Present: Detected or documented on-site.

Critical Habitat

The Project Area does not overlap any federally designated critical habitat for federally-listed plant species. No impact would result.

6.6 Special Status Wildlife

Wildlife Site Visit and Habitat Evaluation Results

The riparian habitat surrounding Dairy Creek within the Project Area and extending within the BSA likely provides suitable habitat for a number of common native and special status wildlife species. These areas of natural habitat could serve as potential nesting, foraging, roosting, and breeding habitat for said species. See representative photos in **Appendix D**.

The remainder of the BSA is along existing roadways bordered by CSLO facilities, mowed fields, and landscaped areas composed of numerous plant exotics as well as some native species and provides only marginal habitat for native wildlife.

The bridge to be replaced may provide potential roosting habitat for the Pallid Bat (*Antrozous pallidus*). No evidence of bat roosting (e.g., pellets, urine staining) was observed during the November site visit).

High bird activity and signs of terrestrial wildlife activity were observed during the reconnaissance survey. Observations of species detected, and their special status, during the reconnaissance survey are provided in **Appendix C**. All detected species are common (not special status). Nonetheless, the majority of bird species observed on-site during the reconnaissance survey are protected by the MBTA and the FGC. Suitable nesting and foraging habitat for a variety of nesting bird taxa is present within the BSA (e.g., riparian habitat).

Water levels in Dairy Creek at the time of the reconnaissance survey were low and the channel was not connected underneath the existing bridge. Medium-sized cobbles are present in the channel. One pool is present immediately downstream of the Project Area (with one to two feet of water present in November 2021).

Special Status Wildlife Species

Federally-listed Wildlife Species

Thirty federally-listed, candidate, or under review wildlife species that are regulated by the USFWS and/or NMFS under the ESA were identified during scoping in the Project vicinity (i.e., the nine-quad search area). Based on habitat evaluations during the reconnaissance survey, and a database and literature review, it was determined that the BSA may provide suitable habitat for two of these species: the California Red-legged Frog and the south-central California coast Distinct Population Segment (DPS) of Steelhead (*Oncorhynchus mykiss irideus*). There is no suitable habitat present in the BSA for the remaining twenty-eight species, and justification for exclusion from further consideration is detailed in **Table 6.3**.

Effects of the proposed Project activities on two federally-listed wildlife species under the jurisdiction of the USFWS, the California Red-legged Frog and Least Bell's Vireo, have been previously analyzed (USFWS 2015). California Red-legged Frogs have been documented throughout CSLO as recently as 2009 (USFWS 2015). The closest occurrence is downstream of the confluence of Dairy and Chorro creeks (see Figure 2 *in* USFWS 2015). The habitat within the Project Area would be considered of marginal value to the California Red-legged Frog given the typical low water levels and lack of ("deep pools with dense stands of

overhanging willows and an intermixed fringe of cattails are considered optimal habitat;" USFWS 2015). Nonetheless, conservation measures will be implemented to minimize potential adverse effects to this species (see **Section 7.1**). The riparian habitat surrounding Dairy Creek within the Project Area is unlikely to support breeding Least Bell's Vireo given the high level of human disturbance and human modification in the BSA. Additionally, Least Bell's Vireo are unlikely to occur within CSLO because San Luis Obispo County is not known to support sustained populations of Least Bell's Vireo (USFWS 2015), this species could occur. Conservation measures will be implemented to minimize potential adverse effects to this species (see **Section 7.1**).

Conservation measures including best management practices (BMPs) and seasonal work windows will be implemented to minimize potential adverse effects to the aquatic habitat of Dairy Creek and Steelhead (see **Section 7.1**). Formal or informal consultation with NMFS is anticipated.

State-Listed and Special Status Wildlife Species

Fourteen state-listed wildlife species (ten of which are also federally-listed) that are regulated by the CDFW under the CESA were identified during scoping in the Project vicinity (i.e., the nine-quad search area). Based on habitat evaluations during the reconnaissance survey, and a database and literature review, it was determined that the BSA does not provide suitable habitat for all but one of these species, and justification for exclusion from further consideration is detailed in **Table 6.3**. One state-listed species the Tricolored Blackbird (*Agelaius tricolor*) has been documented within CSLO. The Project Area and BSA may provide suitable foraging and overwintering habitat for the species, however, no suitable breeding habitat (e.g., ponds with emergent vegetation) is present within the BSA.

Thirty-five additional state special status wildlife species were identified during scoping in the Project vicinity (i.e., the nine-quad search area). Fourteen state special status wildlife species which have a moderate potential to occur in the BSA or have been previously recorded as present within CSLO, are analyzed in **Table 6.3.**

The Pallid Bat has a moderate potential to forage and roost in the Project Area. Townsend's Big-eared Bat (*Corynorhinus townsendii*) and Western Mastiff Bat (*Eumops perotis californicus*), as well as other sensitive bat species have a moderate potential of foraging within the greater BSA, but low potential for roosting within the Project Area.

The Project Area and greater BSA may provide foraging and some nesting habitat for migratory birds as well as several special status species of passerines, wading birds, and raptors. Six special status birds have been recorded within the BSA, and four special status bird species have a moderate potential of occurring within the Project Area and the greater BSA.

One state special status reptile, the Western Pond Turtle (*Emys marmorata*), has a moderate potential of occurring and/or breeding in the Project Area and within the greater BSA.

One state special status amphibian species, the Coast Range Newt (*Taricha torosa*), has a moderate potential of occurring and/or breeding in the Project Area and within the greater BSA.

Two state special status insects, the Obscure Bumble Bee (*Bombus caliginosus*) and Crotch Bumble Bee (*Bombus crotchii*), have a moderate potential of occurring in the Project Area and within the greater BSA.

See **Appendix C, Tables C-3 through C-5** for a list of wildlife species observed within the BSA during the reconnaissance survey, all of which are common. Numerous birds protected by the MBTA and FGC were observed. One game mammal (Mule Deer; *Odocoileus hemionus*) protected by the FGC was also observed but will not be harvested as a result of the Project and is not considered further.

Table 6.3 summarizes the potential for special status wildlife documented in the surrounding nine-quad search area to occur within the Project Area and BSA. The results in **Table 6.3** are based on database and literature review and information from the reconnaissance survey. No protocol-level special status wildlife surveys have been conducted on-site.

Table 6.3 Potential for Special Status Wildlife Species to Occur in the Project Area and BSA

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
Mammals								
Antrozous pallidus	Pallid Bat	None	None	G4	S3	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive | WBWG_H-High Priority	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. They utilize day and night roosts in a variety of habitat types including bridges, mines, barns, rock piles, rocky outcroppings, dead tree snags, live old-growth tree basal hollows, and buildings (Baker et al. 2008).	**Moderate Potential.** Closest known record is from 1995, ~3.25 miles northwest of Project Area (CDFW 2021b). Closest recent record is from 2014, ~19 miles northwest of Project Area (BAMVT 2021). Project Area and BSA may provide suitable roosting (e.g., bridge) and foraging habitat (e.g., along Dairy and Chorro creeks) for this species.
Arctocephalus townsendi	Guadalupe Fur Seal	FT	ST	G1	S1		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Balaenoptera borealis	Sei Whale	FE	None	G3	SNR		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Balaenoptera musculus	Blue Whale	FE	None	G3	SNR		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
Balaenoptera physalus	Fin Whale	FE	None	G3	SNR		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Corynorhinus townsendii	Townsend's Big-eared Bat	None	None	G4	S2	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive | WBWG_H-High Priority	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance. Species roosts colonially in a variety of structures including hollow trees, buildings (barns), mines, and lava tubes (CDFW 2016, Erickson et al. 2002).	~~Moderate~~ Low **Potential.** Several known roost sites within 3 miles of the Project Area (east and west; CDFW 2021b). No recent known records within 20 miles of the Project Area (BAMVT 2021). No suitable roosting is present within the Project Area and BSA. The BSA may provide suitable foraging habitat (e.g., along Dairy and Chorro creeks) for this species.
Dipodomys heermanni morroensis	Morro Bay Kangaroo Rat	FE	SE	G4TH	SH	CDFW_FP-Fully Protected	Coastal sage scrub on the south side of Morro Bay. Needs sandy soil, but not active dunes, prefers early seral stages.	**No Potential.** No suitable habitat (e.g., coastal sage scrub) within the Project Area or BSA. Excluded from further consideration.
Eubalaena glacialis	North Pacific Right Whale	FE	None	G1	SNR		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Eumetopias jubatus	Steller Sea Lion	FD	None	G3	S2	IUCN_EN-Endangered | MMC_SSC-Species of Special Concern	Breeds on Ano Nuevo, San Miguel and Farallon islands, Point St. George, and Sugarloaf. Hauls-out on islands and rocks. Needs haul-out and	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
							breeding sites with unrestricted access to water, near aquatic food supply and with no human disturbance.	
Eumops perotis californicus	Western Mastiff Bat	None	None	G4G5T4	S3S4	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | WBWG_H-High Priority	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	~~Moderate~~ Low **Potential.** Closest recent record is from 2015 north of Paso Robles, ~22 miles north of the Project Area (BAMVT 2021). No suitable roosting is present within the Project Area. The BSA may provide suitable foraging habitat (e.g., along Dairy and Chorro creeks).
Megaptera novaeangliae	Humpback Whale	FE	None	G4	SNR		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Neotoma lepida intermedia	San Diego Desert Woodrat	None	None	G5T3T4	S3S4	CDFW_SSC-Species of Special Concern	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	**No Potential.** No suitable habitat (e.g., coastal scrub) within the Project Area or BSA. Excluded from further consideration.
Nyctinomops macrotis	Big free-tailed Bat	None	None	G5	S3	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | WBWG_MH-Medium-High Priority	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	**Low Potential.** Closest known record is from 1981, ~7.5 miles west of the Project Area (CDFW 2021b). No suitable roosting habitat within BSA.
Orcinus orca	Southern Resident Killer	FE	None	G4	SNR		Marine.	**No Potential.** No marine habitat within Project Area or

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
	Whale							BSA; Project is located ~10 miles inland. Excluded from further consideration.
Physeter macrocephalus	Sperm Whale	FE	None	G3	SNR		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Taxidea taxus	American Badger	None	None	G5	S3	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Low Potential.** Closest known record is from ~3.5 miles west of the Project Area (CDFW 2021). No suitable habitat within the Project Area or BSA. Although unlikely, the species could be present if dispersing through the BSA.
Dipodomys ingens	Giant Kangaroo Rat	FE	SE	G1G2	S1S2	IUCN_EN-Endangered	Annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub. Need level terrain and sandy loam soils for burrowing.	**No Potential.** The Project is located outside of the known range of this species (USFWS 2020b). Excluded from further consideration.
Vulpes macrotis mutica	San Joaquin Kit Fox	FE	ST	G4T2	S2		Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	**No Potential.** The Project is located outside of the known range of this species (USFWS 2020c). Excluded from further consideration.
Birds								
Accipiter cooperii	Cooper's Hawk	None	None	G5	S4	CDFW_WL-Watch List | IUCN_LC-Least Concern	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as	**Present.** There are multiple recent records of this species within CSLO and the surrounding 0.5 miles as recently as 2020 (eBird 2021).

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
							in canyon bottoms on river flood-plains; also, live oaks.	
Agelaius tricolor	Tricolored Blackbird	None	ST	G1G2	S1S2	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_EN-Endangered | NABCI_RWL-Red Watch List | USFWS_BCC-Birds of Conservation Concern	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	**Present.** There are several records of this species within CSLO and the surrounding 0.5 miles as recently as 2019 (eBird 2021), including documented nesting (CDFW 2021). No suitable nesting habitat (e.g., emergent vegetation near open water) within BSA. Suitable foraging habitat within Dairy and Chorro creeks within the BSA.
Ammodramus savannarum	Grasshopper Sparrow	None	None	G5	S3	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	**Moderate Potential.** Several recent records from within 1 mile of the Project Area (eBird 2021). Shrubs on-site may provide marginal nesting habitat for this species, though the majority of the BSA is maintained landscaping.
Aquila chrysaetos	Golden Eagle	None	None	G5	S3	BLM_S-Sensitive | CDF_S-Sensitive | CDFW_FP-Fully Protected | CDFW_WL-Watch List | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Low Potential.** No suitable nesting habitat within the Project Area or BSA. Highly unlikely to forage in the Project Area or BSA.
Ardea herodias	Great Blue Heron	None	None	G5	S4	CDF_S-Sensitive | IUCN_LC-Least Concern	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery	**Moderate Potential.** No suitable nesting habitat within the BSA. Suitable foraging

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
							sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	habitat
Athene cunicularia	Burrowing Owl	None	None	G4	S3	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Low Potential.** Several recent records from within 1 mile of the Project Area, all from the winter (eBird 2021). No suitable nesting habitat within BSA and Project is located outside of the known breeding range for this species. Marginal overwintering habitat present within the BSA.
Buteo regalis	Ferruginous Hawk	None	None	G4	S3S4	CDFW_WL-Watch List | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	**Present.** Several records of this species within CSLO and the surrounding 1 mile as recently as 2015 (eBird 2021). No suitable nesting habitat within BSA and Project is located outside of the known breeding range for this species. Marginal overwintering habitat present within the BSA.
Charadrius nivosus nivosus	Western Snowy Plover	FT	None	G3T3	S2	CDFW_SSC-Species of Special Concern | NABCI_RWL-Red Watch List | USFWS_BCC-Birds of Conservation Concern	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**No Potential.** No suitable nesting or foraging habitat within the BSA. Excluded from further consideration.
Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	FT	SE	G5T2T3	S1	BLM_S-Sensitive | NABCI_RWL-Red Watch List | USFS_S-Sensitive |	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests	**Low Potential.** Several records from Morro Bay as recently as 2019, ~6.5 miles west of the Project Area (eBird 2021). No extensive

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
						USFWS_BCC-Birds of Conservation Concern	in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	riparian habitat within the BSA.
Elanus leucurus	White-tailed Kite	None	None	G5	S3S4	BLM_S-Sensitive | CDFW_FP-Fully Protected | IUCN_LC-Least Concern	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Present.** There are several records of this species within CSLO and the surrounding 0.5 miles as recently as 2019 (eBird 2021), including documented nesting (CDFW 2021). No suitable nesting habitat (e.g., emergent vegetation near open water) within BSA. Suitable foraging habitat within Dairy and Chorro creeks within the BSA.
Empidonax traillii	Willow Flycatcher	None	SE	G5	S1S2	IUCN_LC-Least Concern | USFS_S-Sensitive | USFWS_BCC-Birds of Conservation Concern	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2000-8000 ft elevation. Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	**Low Potential.** Closest known record is from 2018, ~3.5 west of the Project Area (eBird 2021). Willows within the BSA are not limited to a narrow riparian corridor and unlikely to serve as suitable nesting habitat.
Eremophila alpestris actia	California Horned Lark	None	None	G5T4Q	S4	CDFW_WL-Watch List | IUCN_LC-Least Concern	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields,	**Present.** Several records of this species within CSLO and the surrounding 1 mile as recently as 2017 (eBird 2021).

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
							alkali flats.	
Falco columbarius	Merlin	None	None	G5	S3S4	CDFW_WL-Watch List | IUCN_LC-Least Concern	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	**Present.** Several records of this species within CSLO and the surrounding 1 mile as recently as 2021 (eBird 2021). No suitable nesting habitat within BSA and Project is located outside of the known breeding range for this species. Marginal overwintering habitat present within the BSA.
Falco mexicanus	Prairie Falcon	None	None	G5	S4	CDFW_WL-Watch List | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**Moderate Potential.** Several records of this species within 1 mile as recently as 2021, all during the winter months (eBird 2021). No suitable nesting habitat within BSA and Project is located outside of the known breeding range for this species. Marginal overwintering habitat present within the BSA.
Gymnogyps californianus	California Condor	FE	SE	G1	S1	CDF_S-Sensitive | CDFW_FP-Fully Protected | IUCN_CR-Critically Endangered | NABCI_RWL-Red Watch List	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	**Low Potential.** No suitable nesting habitat within BSA. BSA is highly unlikely to contain foraging habitat, large animal carcasses (e.g., deceased cattle) would be removed by CMD staff. Only flyover occurrences possible. Excluded from further consideration.
Lanius ludovicianus	Loggerhead Shrike	None	None	G4	S4	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting,	**Moderate Potential.** Several records of this species within 1 mile as recently as 2021 (eBird 2021). Requisite foraging and nesting habitat is present within BSA.

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						Concern	with perches for scanning, and fairly dense shrubs and brush for nesting.	
Laterallus jamaicensis coturniculus	California Black Rail	None	ST	G3G4T1	S1	BLM_S-Sensitive | CDFW_FP-Fully Protected | IUCN_NT-Near Threatened | NABCI_RWL-Red Watch List | USFWS_BCC-Birds of Conservation Concern	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	**No Potential.** Closest known record is from 1977, ~4.75 miles west of the Project Area (CDFW 2021). Project is located ~10 miles inland. No suitable marsh habitat within BSA. Excluded from further consideration.
Progne subis	Purple Martin	None	None	G5	S3	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	**Low Potential.** Closest known record is from 2021, ~3.5 miles west of the Project Area (eBird 2021). No woodland habitat within BSA. Marginal foraging and nesting habitat may be present in the BSA.
Rallus obsoletus obsoletus	California Ridgway's Rail	FE	SE	G3T1	S1	CDFW_FP-Fully Protected | NABCI_RWL-Red Watch List	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	**No Potential.** No suitable habitat within BSA and the Project is located outside the current range of this species. Excluded from further consideration.
Vireo bellii pusillus	Least Bell's Vireo	FE	SE	G5T2	S2	IUCN_NT-Near Threatened | NABCI_YWL-	Summer resident of Southern California in low riparian in vicinity	**Low Potential.** Closest known record is from 2020 near Morro Bay, ~6.75 miles

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
						Yellow Watch List	of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	west of the Project Area (eBird 2021). Only a few isolated individuals or breeding pairs known from San Luis Obispo County given the lack of sustained populations in the county (USFWS 2015)
Reptiles								
Anniella pulchra	Northern California Legless Lizard	None	None	G3	S3	CDFW_SSC-Species of Special Concern | USFS_S-Sensitive	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	**Low Potential.** Closest known record is from 1998, ~1 mile southwest of the Project Area (CDFW 2021b). No suitable sandy soils within BSA. Excluded from further consideration.
Caretta caretta	North Pacific Loggerhead Sea Turtle	FE	None	G3	SNR		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Chelonia mydas	Green Sea Turtle	FT	None	G3	S4	IUCN_EN-Endangered	Marine. Completely herbivorous; needs adquate supply of seagrasses and algae.	**No Potential.** No marine habitat within BSA; Project Area is located ~10 miles inland. Excluded from further consideration.
Dermochelys coriacea	Leatherback Sea Turtle	FT	None	G2	SNA		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Emys marmorata	Western Pond Turtle	None	None	G3G4	S3	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable | USFS_S-Sensitive	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open	**Moderate Potential.** Closest known record is from 1996, ~1 mile north of the Project Area in Dairy Creek (CDFW 2021b). Dairy Creek within the Project Area provides marginal foraging and aquatic habitat for this species. No suitable upland habitat present in the BSA given the human-modified

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
							fields) upland habitat up to 0.5 km from water for egg-laying.	landscape and regular mowing.
Gambelia sila	Blunt-nosed Leopard Lizard	FE	SE	G1	S1	CDFW_FP-Fully Protected | IUCN_EN-Endangered	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	**No Potential.** The Project is located outside of the known range of this species (USFWS 2020d). Excluded from further consideration.
Lepidochelys olivacea	Olive Ridley Sea Turtle	FT	None	G3	SNA		Marine.	**No Potential.** No marine habitat within Project Area or BSA; Project is located ~10 miles inland. Excluded from further consideration.
Phrynosoma blainvillii	Coast Horned Lizard	None	None	G3G4	S3S4	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**No Potential.** Closest known record is from 1994, ~0.5 miles north of the Project Area (observed prior to the construction of the golf course; CDFW 2021b). No iNaturalist records within San Luis Obispo County (iNaturalist 2021). No suitable habitat (e.g., sandy washes) within BSA and the Project is located outside the current range of this species. Excluded from further consideration. Excluded from further consideration.
Amphibians								
Ambystoma californiense pop. 1	California Tiger Salamander – Santa Barbara County DPS	FT	ST	G2G3	S3	CDFW_WL-Watch List | IUCN_VU-Vulnerable	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland	**No Potential.** Closest known records are from southern San Luis Obispo over 30 miles south of the Project Area (CDFW 2021b, iNaturalist 2021). No suitable

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
							habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	habitat within the BSA. Excluded from further consideration.
Batrachoseps minor	Lesser Slender Salamander	None	None	G1	S1	CDFW_SSC-Species of Special Concern | IUCN_DD-Data Deficient | USFS_S-Sensitive	South Santa Lucia Mountains in tanbark oak, coast live oak, blue oak, sycamore and laurel. Shaded slopes with abundant leaf litter.	**No Potential.** Closest known record is from 1977, ~4.5 miles northeast of the Project Area (CDFW 2021b). No recent records within 7 miles of the Project Area (iNaturalist 2021). No suitable habitat within BSA. Excluded from further consideration.
Rana boylii	Foothill Yellow-legged Frog	None	SE	G3	S3	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened | USFS_S-Sensitive	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	**No Potential.** Closest known record is from 1958, ~4.25 miles east of the Project Area (CDFW 2021b). No recent records within San Luis Obispo County (iNaturalist 2021). This species is considered extirpated in coastal areas of San Luis Obispo County (Jennings and Hayes 1994). Excluded from further consideration.
Rana draytonii	California Red-legged Frog	FT	None	G2G3	S2S3	CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**Present.** Several records within Dairy and Chorro creeks as recently as 2004 (CDFW 2021b), and within CSLO as recently as 2009 (USFWS 2015).
Spea hammondii	Western Spadefoot	None	None	G2G3	S3	BLM_S-Sensitive | CDFW_SSC-Species of	Occurs primarily in grassland habitats, but can be found in	**No Potential.** Closest known record is from 1991, ~9 miles northeast of Project Area

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
						Special Concern | IUCN_NT-Near Threatened	valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	(CDFW 2021b). No recent records within 7 miles of the Project Area (iNaturalist 2021). No suitable habitat within the BSA. Excluded from further consideration.
Taricha torosa	Coast Range Newt	None	None	G4	S4	CDFW_SSC-Species of Special Concern	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs and slow moving streams.	**Moderate Potential.** Closest known record is from 2021, ~2.5 miles northeast of the Project Area (iNaturalist 2021). Suitable breeding habitat within Project Area and BSA.
Fish								
Eucyclogobius newberryi	Tidewater Goby	FE	None	G3	S3	AFS_EN-Endangered | IUCN_VU-Vulnerable	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	**No Potential.** No brackish waters within the BSA. Project is located ~10 miles inland. Excluded from further consideration.
Oncorhynchus mykiss irideus pop. 9	Steelhead - south-central California coast DPS	FT	None	G5T2Q	S2	AFS_TH-Threatened	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	**Present.** Known to occur in Dairy Creek (as recently as 1980; CDFW 2021b) and Chorro Creek within the BSA.
Acipenser medirostris pop. 1	Green Sturgeon - southern DPS	FT	None	G3T1	S1	AFS_VU-Vulnerable | IUCN_NT-Near Threatened	Spawning site fidelity. Spawns in the Sacramento, Feather and Yuba Rivers. Presence in upper Stanislaus and San Joaquin Rivers may indicate spawning.	**No Potential.** Project is located ~10 miles inland over a very small stream. No spawning habitat present within Project Area or BSA.

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							Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	
Crustaceans								
Branchinecta lynchi	Vernal Pool Fairy Shrimp	FT	None	G3	S3	IUCN_VU-Vulnerable	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**No Potential.** Closest known records are from 2005 more than 6.5 miles southeast of the Project Area (CDFW 2021b). No suitable habitat (e.g., vernal pools) in Project Area or BSA.
Linderiella occidentalis	California Linderiella	None	None	G2G3	S2S3	IUCN_NT-Near Threatened	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.	**No Potential.** Closest known record is from 2000, ~3.25 miles northeast of Project Area (CDFW 2021b). No suitable habitat (e.g., vernal pools) in Project Area or BSA.
Mollusks								
Helminthoglypta	Morro	FE	None	G1	S1S2	IUCN_CR-	Restricted to the	**No Potential.** Closest known

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
walkeriana	Shoulderband (=banded dune) snail					Critically Endangered	coastal strand in the immediate vicinity of Morro Bay. Inhabits the duff beneath Haplopappus, Salvia, Dudleya, and Mesembryanthemum.	record is from 2003, ~4.5 miles east of Project Area (CDFW 2021b). No suitable habitat (e.g., coastal strand) in Project Area or BSA.
Pyrgulopsis taylori	San Luis Obispo Pyrg	None	None	G1	S1		Freshwater habitats in San Luis Obispo County.	**Low Potential.** Closest known record is from 1992, ~3.25 miles northeast of the Project Area (CDFW 2021b). Known fish passage barrier (Chorro Creek Reservoir) between nearby record and Project Area. Very little is known about this species and all known occurrences are from museum specimens (NatureServe 2021). Species is not expected to occur within Project Area or BSA.
Tryonia imitator	Mimic Tryonia (=California brackishwater snail)	None	None	G2	S2	IUCN_DD-Data Deficient	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types; able to withstand a wide range of salinities.	**No Potential.** Closest known record is from 1996, ~4.75 miles west of Project Area (CDFW 2021b). No suitable habitat (e.g., coastal strand) in Project Area or BSA.
Insects								
Atractelmis wawona	Wawona Riffle Beetle	None	None	G3	S1S2		Aquatic; found in riffles of rapid, small to medium clear mountain streams; 2000-5000 ft elev. Strong preference for inhabiting submerged aquatic mosses.	**Low Potential.** Closest known record is from 2003, 6.25 miles southeast of Project Area (CDFW 2021b). Typically associated with higher elevation mountain streams; Project located at 250-255 feet above sea level. Suitable riffle habitat is unlikely to occur within Dairy

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
								Creek in Project Area given ordinary low flows. Species is not expected to occur in Project Area or BSA.
Bombus caliginosus	Obscure Bumble Bee	None	None	G4?	S1S2	IUCN_VU-Vulnerable	Coastal areas from Santa Barbara County to north to Washington state. Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia.	**Moderate Potential.** Closest known record is from 1974, ~5 miles west of Project Area (BumbleBeeWatch 2021). No recent records of this species from San Luis Obispo County (BumbleBeeWatch 2021). Suitable foraging plants observed within BSA.
Bombus crotchii	Crotch Bumble Bee	None	None	G3G4	S1S2		Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	**Moderate Potential.** Closest known record is from 2009, ~5.25 miles southeast of Project Area (CDFW 2021b). Suitable foraging plants observed within BSA.
Bombus occidentalis	Western Bumble Bee	None	None	G2G3	S1	USFS_S-Sensitive	Once common and widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	**Low Potential.** Closest known record is from 1936, ~9.5 miles south of Project Area (CDFW 2021b). No recent records of this species from San Luis Obispo County (BumbleBeeWatch 2021). Although the BSA falls within the species pre-2002 range (according to ICUN Redlist), the range has contracted significantly in the last decade and now primarily includes the intermountain west and cascade regions of the U.S. (Hatfield et al. 2015). Thus, this species is not expected to occur.
Cicindela hirticollis gravida	Sandy Beach Tiger Beetle	None	None	G5T2	S2		Inhabits areas adjacent to non-brackish water along	**No Potential.** Closest known record is from 1985, ~8 miles northwest of Project Area

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
							the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	(CDFW 2021b). Project located ~10 miles inland. No suitable habitat (e.g., sandy beaches) within Project Area or BSA.
Coelus globosus	Globose Dune Beetle	None	None	G1G2	S1S2	IUCN_VU-Vulnerable	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico. Inhabits foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.	**No Potential.** Closest known record is from 2005, 7.5 miles west of Project Area (CDFW 2021b). Project located ~10 miles inland. No suitable habitat (e.g., sand dunes) within Project Area or BSA.
Danaus plexippus pop. 1	Monarch - California overwintering population	FC	None	G4T2T3	S2S3	USFS_S-Sensitive	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	**Low Potential.** Closest known record is from 5.75 miles northwest of Project Area (CDFW 2021b). Numerous recent records within San Luis Obispo County (iNaturalist 2021). No suitable overwintering habitat (e.g., wind-protected tree groves) within Project Area and BSA. Occasional flyover occurrences could occur.
Plebejus icarioides moroensis	Morro Bay Blue Butterfly	None	None	G5T2	S2		Inhabits stabilized dunes and adjacent areas of coastal San Luis Obispo and NW Santa Barbara counties. Larval foodplant thought to be Lupinus	**No Potential.** Closest known record is from an unknown date prior to 2012, ~4.75 miles west of Project Area (CDFW 2021b). Project located ~10 miles inland. No suitable habitat (e.g., dunes) within Project Area or BSA.

Scientific Name	Common Name	FESA	CESA	Global Rank[1]	State Rank[1]	Other Status[1]	Habitat Requirements[1]	Potential to Occur in Project Area and BSA
							chamissonis.	
Polyphylla nubila	Atascadero June Beetle	None	None	G1	S1		Known only from inland sand dunes in San Luis Obispo County.	**No Potential.** Closest known record is from 1956, ~5 miles southeast of Project Area (CDFW 2021b). No suitable habitat (e.g., dunes) within Project Area or BSA.

Column Header Categories and Abbreviations:

FESA: Listing status under the federal Endangered Species Act (ESA)

FE = Federal Endangered; FT = Federal Threatened; FC = Federal Candidate; FD = Federally Delisted

CESA: Listing status under the California state Endangered Species Act (CESA)

SE = State Endangered; SD = State Delisted; ST = State Threatened.

Global Rank: Global Rank from NatureServe's Heritage Methodology (NatureServe 2021) (ranking according to degree of global imperilment - G1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors; G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors; G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors; G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors; G5 = Secure—Common; widespread and abundant. Subspecies/variety level: "Subspecies/varieties receive a T-rank attached to the G-rank. With the subspecies/varieties, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety" (CDFW 2021c); ? = "Denotes inexact numeric rank" (NatureServe 2021); Q = "Questionable taxonomy that may reduce conservation priority" (NatureServe 2021)

State Rank: State Rank from NatureServe's Heritage Methodology (NatureServe 2021) (ranking according to degree of imperilment in the state (California) - S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state; S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state; S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state; S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors; S5 = Secure—Common, widespread, and abundant in the state; SNR = State Not Ranked.

Other Statuses (other federal or state listings may include)**:**

AFS_TH (American Fisheries Society Threatened):“a taxon that is in imminent danger of becoming endangered throughout all or a significant portion of its range” (Jelks et al. 2008).

AFS_VU (American Fisheries Society Vulnerable): “a taxon that is in imminent danger of becoming threatened throughout all or a significant portion of its range” (Jelks et al. 2008).

BLM_S (Bureau of Land Management Sensitive): “(1) species listed or proposed for listing under the Endangered Species Act (ESA), and (2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA, which are designated as Bureau sensitive by the State Director(s). All Federal candidate species, proposed species, and delisted species in the 5 years following delisting would be conserved as Bureau sensitive species.” (CDFW 2021c);

CDF_S (California Department of Forestry and Fire Protection Sensitive): “those species that warrant special protection during timber operations” (CDFW 2021c);

CDFW_FP (CDFW Fully Protected Animal): “This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.” (CDFW 2021c);

CDFW_SSC (CDFW Species of Special Concern): “It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as ‘Species of Special Concern’ because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as ‘Species of Special Concern’ is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability” (CDFW 2021c);

CDFW_WL (California Department of Fish and Wildlife Watch List): “The CDFW maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status” (CDFW 2021c);

IUCN_LC (International Union for Conservation of Nature Least Concern): “when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened” (IUCN 2012);

IUCN_NT (International Union for Conservation of Nature Near Threatened): “when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future (IUCN 2012);

IUCN_VU (International Union for Conservation of Nature Vulnerable): “when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable…, and it is therefore considered to be facing a high risk of extinction in the wild” (IUCN 2012);

IUCN_EN (International Union for Conservation of Nature Endangered): “when the best available evidence indicates that it meets any of the criteria A to E for Endangered…,and it is therefore considered to be facing a very high risk of extinction in the wild” (IUCN 2012);

MMC_SSC (Marine Mammal Commission Species of Special Concern): no definition available.

NABCI_RWL (North American Bird Conservation Initiative Red Watch List): “species with extremely high vulnerability” (CDFW 2021c);

NMFS_SC (National Marine Fisheries Service Species of Concern): “species about which NOAA's NMFS has some concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the Endangered Species Act” (CDFW 2021c);

USFS_S (U.S. Forest Service Sensitive): “plant and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density and/or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution” (CDFW 2021c);

USFWS_BCC (U.S. Fish and Wildlife Service Birds of Conservation Concern): “The goal of the Birds of Conservation Concern 2008 report is to accurately identify the migratory and non-migratory bird species (beyond those already designated as Federally Threatened or Endangered) that represent our highest conservation priorities and draw attention to species in need of conservation action” (CDFW 2021c);

WBWG_H- (Western Bat Working Group High Priority): “those species considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment” (BCI 1998);

WBWG_LM- (Western Bat Working Group Low Priority): “most of the existing data support stable populations of the species, and that the potential for major changes in status in the near future is considered unlikely. While there may be localized concerns, the overall status of the species is believed to be secure” (BCI 1998);

WBWG_M- (Western Bat Working Group Medium Priority): “a level of concern that should warrant closer evaluation, more research, and conservation actions of both the species and possible threats” (BCI 1998);

XERCES_IM (Xerces Society Imperiled): species “at high risk of extinction because of highly restricted range, rare populations (often 20 or fewer), steep declines, or other factors” (NatureServe 2021).

Potential to Occur:

No Potential: Habitat in and adjacent to the Project Area is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Low Potential: Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found in the Project Area.

Moderate Potential: Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found in the Project Area.

High Potential: All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on in the Project Area

Present: Detected or documented on-site.

Potential Impacts to Special Status Wildlife

Special Status Mammals

If special status bats are present in the Project Area or BSA during construction activities, the species or maternity colonies may be impacted by roost removal (bridge removal) and elevated levels of ambient noise. Potential Project-related impacts to these species (if any) would be avoided through the implementation of measures described further in **Section 7.1**.

No special status terrestrial mammals have moderate or high potential to occur within the BSA. Therefore, no measures are proposed at this time to offset potential impacts because these special status species are unlikely to be impacted by the Project.

Special Status Birds

If special status birds are present in the Project Area or BSA during construction activities, the species may be impacted by removal of nesting habitat, elevated levels of noise, and anthropogenic disturbance. Potential Project-related impacts to these species (if any) would be avoided through the implementation of measures described further in **Section 7.1**.

Special Status Amphibians

If special status amphibians, specifically California red-legged frog and coast range newt, are present in the Project Area or BSA during construction activities, these species may be injured or killed via crushing, entrapment, or burying (related to ground disturbance). Potential Project-related impacts to these species (if any) would be avoided through the implementation of measures described further in **Section 7.1**.

Special Status Reptiles

If special status reptiles, specifically Western Pond Turtle(s), are present in the Project Area or BSA during construction activities, this species may be injured or killed via crushing, entrapment, or burying (related to ground disturbance). Potential Project-related impacts to these species (if any) would be avoided through the implementation of measures described further in **Section 7.1**.

Special Status Fish

If special status fish, specifically Steelhead, are present in the Project Area or BSA during construction activities, this species may be injured or killed via crushing, entrapment, burying (related to ground disturbance), dewatering, or elevated levels of in-water sediment. Potential Project-related impacts to these species (if any) would be avoided through the implementation of measures described further in **Section 7.1**.

Given that existing piles will be cut off at the mudline, construction below the OHWM is expected to be minimally necessary. Given the low water level at the time of the November site visit, the Dairy Creek channel below the existing bridge is likely to be disconnected at the time of construction. Nonetheless, if water is present within the Project Area at the time of construction, temporary dewatering of Dairy Creek may be necessary to allow bridge replacement. Although placement of a temporary coffer dam and dewatering would greatly reduce the risk of severe sedimentation, it may require relocation of any fish within the area to be dewatered. Fish would be relocated to nearby suitable wetted habitat consistent with protocols required by the NMFS, CDFW, and Project permits.

Loss or Modification of Juvenile Rearing Habitat Juvenile salmonids may be present in Dairy Creek within the Project Area. Construction of a coffer dam and dewatering after placement of block nets would

result in a temporary loss of shallow habitat. If any fish are present within the block nets, they would need to be relocated to nearby suitable habitat with short-term stress related to handling.

Loss of Spawning Habitat Work would be conducted outside of spawning season. Thus, no loss of spawning habitat or direct impact to spawning is anticipated.

Loss of Riparian Habitat Loss of riparian habitat will be limited to the extent feasible. Vegetation removal will be most likely limited to minor roadside vegetation. Vegetation removal will include minor mowing and minor brush removal.

Hydroacoustic Effects Potential noise effects would be largely related to the presence of heavy construction equipment and grading of the road surface. The road surface is well removed from open water, thus Steelhead potentially in the Dairy Creek would not be exposed to this stressor as a result of terrestrially-based construction. No pile driving is proposed given that existing piles will be cut off at the mudline. Pile driving may be used during construction beyond top of bank.

Increased Turbidity and Suspended Sediment Increased turbidity and suspended sediments in Dairy Creek may occur as a result of work on the proposed bridge and adjacent slope. Because work would occur during low water, late summer or fall conditions and because the immediate work area would be dewatered, sedimentation risk would be minimized and localized. Some turbidity would likely occur during placement and removal of coffer dams; however, this would occur within the established limits of the CCRWQCB Clean Water 401 water quality certification for allowable turbidity levels above background and limited to the immediate work vicinity.

Increased turbidity and suspended sediments could cause mortality, illness, or injury of salmonids due to re-suspended contaminants, clogging and abrasion of gill filaments, low-oxygen water, and interference with feeding due to poor visibility (LFR 2004). Sediment can also smother salmonid eggs, which would affect future fish stocks (Hobbs 1937).

Even with BMPs in place, fine sediment has the potential to enter the creek from adjacent slopes during initial storm events following Project completion. Increased turbidity and suspended sediment are anticipated to be slightly above base levels initially but are expected to return to normal following the initial flush. In the long-term, turbidity and suspended sediment are expected to be reduced due to stabilization of the currently bare and eroding lower slopes, upland restoration activities, and establishment of a riparian buffer. Turbidity and suspended sediment are expected to be localized and temporary. Except during and immediately after storm events, modest streamflow through the Project Area offers adequate opportunity for sediment to drop out of the water column.

Impaired Fish Passage During Construction The Project does not require alternative fish migration mechanisms, as dewatering will occur outside of the spawning season, and only a very small portion of the channel width would be affecting by work isolation. Impacts related to impaired fish passage during construction are not anticipated for this Project.

Potential Spill of Hazardous Materials Potential spills of hazardous materials (i.e., oil, grease, fuels, and coolants) could have deleterious effects on fisheries resources downstream of the Project. Additionally, operating construction equipment in or adjacent to any watercourse, whether it is wet or dry, poses the risk of serious environmental damage if a spill were to occur. The Project requires daily on-site refueling of construction equipment. As a result of that activity, minor fuel and oil spills can occur, and there is always the risk of larger releases. Without rapid containment, such materials can be extremely difficult to clean up in their entirety, when taking into consideration the size of a spill and its proximity to flowing water. Oils, fuels, and other toxic contaminants can have deleterious effects on fisheries resources, with the risk being

substantially elevated when spills are near streams or other waterbodies. Safeguards to prevent spills in the BSA are critical because of the Project's relationship to a fish-bearing stream (Dairy Creek). Except for an excavator removing the existing bridge piles, most equipment would remain well beyond the top of bank. The excavator would be operated from above the streambank along Kern Avenue and would not enter the wetted environment of the Dairy Creek.

Injury and Mortality of Fisheries Resources All pools would be surveyed for fish prior to dewatering by a qualified biologist. Any observed fish would be relocated to suitable habitat downstream consistent with fish relocation protocols established by CDFW, NMFS, and Project permits. A qualified biologist would be present on-site until dewatering is complete to ensure that no fish are overlooked. Dewatering pumps will be screened to avoid inadvertent fish entrainment. Fish screening specifications will be consistent with those required by the CDFW and NMFS (e.g., mesh no greater than 3/32-in opening). Due to its dry condition and use of a coffer dam, fish would not be able to reenter the Project vicinity during work.

In the course of relocation, there is some risk of injury and mortality (an estimated 3% mortality; Collins 2004, NMFS 2012) to juvenile salmonids, especially where small nets are ineffective and an electrofisher must be used. A qualified fish biologist with experience in fish relocation will complete this portion of the Project. Aside from fish relocation prior to dewatering, other causes of injury and mortality of fisheries resources are not impacts associated with this Project.

Special Status Insects

Potential impacts to special status insects (Crotch Bumble Bee and Obscure Bumble Bee), although unlikely, due to the rarity of these species on the landscape, could occur if considerable areas of nesting or foraging habitat (large areas of nectar plants) were planned for clearing/grubbing or excavation on this Project. However, this is not proposed or expected. Therefore, no measures are proposed at this time to offset potential impacts because special status species are unlikely to be impacted by the Project.

Critical Habitat

The Project Area overlaps a large geographically-unspecific block of federally designated critical habitat for one federally-listed wildlife species regulated by the USFWS: the California Red-legged Frog. However, CSLO was excluded from this designation (USFWS 2015). Therefore, no impact will result.

As discussed in Section 3.6.1.2 of the Camp San Luis Obispo Integrated Natural Resources Management Plan (CAARNG 2022), the presence of South-Central California Coast (SCCC) Steelhead has been documented at various locations at Camp SLO, including Dairy Creek. However, NMFS re-proposed critical habitat for several distinct population segments of Steelhead, including the SCCC steelhead DPS (69 Fed. Reg. 71879 [10 December 2004]). This distinct population segment, which includes CLSO, was exempted from the proposed critical habitat designation (71 Federal Register 52523 [September 2, 2005]), in accordance with the Endangered Species Act (16 U.S.C § 4[a][3]) because CSLO prepared a qualifying Integrated Natural Resources Management Plan.

There is no designated critical habitat within the Project Area, and therefore the Project would have no adverse effect on critical habitat.

Essential Fish Habitat (EFH)

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) requires that EFH be identified for all federally managed species including all species managed by the Pacific Fisheries Management Council (PFMC). EFH has been defined for the purposes of the MSFCMA as "those waters

and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." NMFS has further added the following interpretations to clarify this definition:

– "Waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish, and may include areas historically used by fish where appropriate;
– "Substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities;
– "Necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and
– "Spawning, breeding, feeding, or growth to maturity" covers the full life cycle of a species.

Adverse effect means any effect that reduces quality and/or quantity of EFH, and may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey or reduction in species fecundity), or site-specific or habitat-wide effects, including individual, cumulative, or synergistic consequences of actions.

The PFMC is responsible for managing commercial fisheries resources along the coast of Washington, Oregon, and California. The PFMC is "guided by the principle that there should be no net loss of the productive capacity of marine, estuarine, and freshwater habitats that sustain commercial, recreational, and tribal salmon fisheries beneficial to the nation" (PFMC 2014).

Under the MSFCMA, Dairy Creek within the Project Area is not considered EFH within the Pacific Coast Salmon FMP (NOAA Fisheries 2021b; **Appendix F**). Furthermore, of the three fish species scoped within the nine-quad search area, Tidewater Goby and Green Sturgeon are not considered in the Pacific Coast Salmon FMP. Steelhead is considered in the Pacific Coast Salmon FMP, however not for EFH but rather as a separate management measure prohibiting Steelhead fishing within the Economic Exclusion Zone (which extends 200 nautical miles from the coast) unless licensed. No other management measures are within the FMP for Steelhead.

Due to the absence of EFH within the BSA, the Project would have no adverse effects to EFH.

7. Summary of Potential Impacts and Avoidance and Minimization Measures

7.1 Proposed Avoidance and Minimization Measures

General

The Project would replace an existing vehicular gate and bridge. To successfully construct the Project, tree trimming, noise impacts, and removal of riparian habitat surrounding the bridge are anticipated. Therefore, it can be expected that impacts to riparian habitat and wildlife species could occur. The following measures are based on those included in an earlier PBO for CSLO (USFWS 2015). Because the PBO was written to cover a variety of operational and routine maintenance activities, some measures which are not applicable have been excluded, and some have been added and/or refined to be more applicable to the proposed construction activity. With inclusion of the following measures, impacts to biological resources will be reduced.

Implementation of BMPs to reduce erosion, dust, and potential for polluted run-off into Dairy Creek would be implemented to minimize impacts to aquatic resources. The following measures are recommended for inclusion into environmental documentation (following prior guidance in the PBO; USFWS 2015) to avoid or reduce potential Project-related impacts to aquatic resources and for general environmental protections.

Measure BIO-1: Best Management Practices to Protect Dairy Creek

The following activities will be implemented during construction:

- If water is present in within the Project Area (i.e., channel of Dairy Creek) at the time of construction, a dewatering plan will be developed for review and acceptance by regulatory agencies at least 15 days prior to the onset of construction.
- No excavation or equipment operation will occur where flowing water is present.
- No construction activities shall occur during or within 24-hours following a rain event.
- Suitable BMPs, such as silt fences, fiber rolls, or earthen berms would be installed or constructed between work zones and staging and temporary material stockpile areas, and any watercourse to collect loose debris and to intercept sediment during rain events. These structures shall be installed pursuant to regulatory specifications prior to pending rain events (trigger = greater than 50 percent possibility of rain within the next 24 hours), as forecasted by the National Weather Service. Any sediment caught by the fence or rolls would be removed before the fence/rolls are pulled.
- Temporary spoils or construction material sites shall be located so as to not drain directly into ditches, streams, or other waterbodies. If a spoils/construction materials site has the potential to drain into a surface water feature, a retention basin, berm(s), or other catchment device shall be constructed or installed to intercept silt-laden storm runoff before it reaches any waterbody. Areas disturbed by construction and temporary storage sites shall be graded, seeded, and mulched upon completion of construction, whether or not they pose the risk of erosion and the off-site release of fine sediment.
- All construction debris shall be removed from the site in a timely manner and disposed of appropriately.

- All exposed mineral soil, or stockpiles to remain on-site through the wet season shall be protected from erosion associated with wind and rain (e.g., silt fences, straw bales, straw mulch, and tarps).
- Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e., USACE, CCRWQCB, and CDFW) shall be implemented and completed pursuant to established criteria and/or schedules. All measures contained in Project permits or associated with agency approvals shall be implemented in a timely manner.
- Refuelling of equipment will not occur within 100 feet of waters or wetlands.
- Equipment shall be cleaned of deleterious materials before being delivered to the job site.
- Equipment shall be staged, and materials shall be stockpiled outside of riparian habitat.
- Impacts to herbaceous cover shall be offset by reseeding any unvegetated and impacted areas with a suitable seed mixture post-construction.
- Any construction equipment operating adjacent to or over a stream shall be inspected daily for leaks. Any oil, fuel, and grease residue that has the potential to fall from machinery shall be removed and properly disposed of.
- All heavy equipment shall be inspected and cleaned at an off-site location prior to delivery to the work site.
- Equipment parking, maintenance, and fuelling shall occur at designated upland staging areas only, with all staging locations spatially isolated from watercourses.
- Light equipment such as generators, welders, or pumps, or any heavy equipment including water drafting trucks, would use drip pans or other devices (i.e., absorbent blankets, sheet barriers, or other materials) to avoid contamination of surface waters or soils located adjacent to waterbodies.
- Equipment shall be inspected for leaks before each shift, throughout the shift, and at end-of-shift each day.
- All fuelling, lubing, and equipment maintenance shall be performed in an environmentally responsible manner.
- All activities relative to fuelling, lubing, and maintenance shall be performed in designated staging areas unless equipment has been immobilized due to mechanical failure. In those instances, every effort shall be made to safeguard against and control the release of contaminants as repairs are being made.
- Fuels and lubricants shall not be stored on-site after-hours or on weekends or holidays.
- Maintenance involving the removal or repair of hydraulic cylinders, hoses, or of any reservoirs containing TPH or other deleterious substances, shall be performed over impermeable fabric or other surfaces resistant to such substances.
- Fuelling trucks shall at all times be equipped with sealed spill kits.
- Two sealed 5-gallon spill kits shall be kept on-site through the course of the construction. Kits that are used shall be replaced in-kind with new sealed kits. Unsealed spill kits shall be removed from the site as they are oftentimes missing key components necessary during emergency spill situations.
- If work is to occur over open water or over the wetted portion of the river, an oil boom capable of spanning the wetted portion of said waterbody shall be available each day that such work is to be performed. The oil boom shall be deployed downstream of the Proposed Action, and full width of the wetted channel each time, and for the duration of time equipment is required to

work over the wetted channel. Floating absorbent pads, designed specifically to recover TPH from the surface of water, shall be available each day work is to occur over said waterbody. All employees shall know the on-site location of such devices. Furthermore, each employee shall be trained in the functional limitations of such devices, as well as trained in the proper and expeditious deployment of such devices. Pre-construction training is paramount to ensuring rapid containment, recovery, and storage of substances known to be harmful to biological resources and water quality. Employees replacing those initially trained, or any additional employees new to the site shall be fully trained in the use of emergency BMPs as a prerequisite to employment.

- In the event of a spill, the local CDFW office shall be notified and consulted regarding clean-up procedures. Large spills should also be reported to the Office of Spill Prevention and Response, 1700 K Street, Suite 250 Sacramento, CA 95811, or report oil spills to 800-852-7550 or 800-OILS-911.

Measure BIO-2: Prevent Erosion and Sedimentation

CMD shall prevent soil erosion and sedimentation during construction by developing and implementing an Erosion and Sediment Control Plan for the Project. The Plan will address how the Contractor will manage erosion and sediment control measures, general site and materials management, and inspection and maintenance. The Plan shall specifically address how all jurisdictional waters will be protected. The following minimum measures shall be included in the Plan and incorporated into Project construction to reduce soil erosion and protect water quality.

- Erosion and sediment control measures will be in effect and maintained by the Contractor for the duration of construction.
- Fiber rolls or similar products will be utilized to reduce sediment runoff from disturbed soils.
- Storm drain inlets receiving storm water runoff will be equipped with inlet protection.

Measure BIO-3: Environmental Awareness Briefings

Prior to the start of work, all construction workers will be briefed on the biology and life history of federally-listed (specifically California Red-legged Frog and Steelhead), state-listed, and state special status wildlife species potentially present in the Project Area. The training will include species identification, avoidance and minimization measures, communication protocols, and consequences of non-compliance.

Sensitive Natural Communities (SNCs)

No federally- or state-listed plant species have moderate or high potential to occur within the Project Area. One SNC, riparian vegetation, is along either side of Dairy Creek. If ground disturbance were to occur in the riparian area of Dairy Creek, the following measure is recommended.

Measure BIO-4: Protect and Restore Riparian Vegetation

- Removal of riparian vegetation shall be limited to the smallest footprint necessary to install the replacement bridge. Restoration of riparian habitat shall occur at a location along Dairy Creek, or other suitable location within the same watershed, that could benefit from a “lift” in habitat through either native tree and riparian understory planting, removal of invasives, removal of

abandon fill or man-made debris, or some combination thereof. This will be documented in a Riparian Vegetation Management Plan.

- A Riparian Vegetation Management Plan (Plan) shall be prepared to identify trees and other vegetation that will be removed and to identify the types and locations of replacement riparian vegetation that will be planted following bridge construction.
- The Plan also will detail restoration techniques, time of year the work will be done, monitoring activities and duration, success criteria for completion, and remedial actions if the success criteria were not achieved. Revegetation will be undertaken both to replace removed vegetation and to reduce the potential for streambank erosion.
- Objectives to protect will include protecting existing riparian vegetation to the maximum extent possible, and avoiding removal of oak, willow, and western sycamore from the banks of Dairy Creek. Objectives to restore will include replacing lost or damaged riparian vegetation at a three-to-one ratio (e.g., for every tree removed, three replacement trees would be planted), using native vegetation for plantings, and restoring areas that have previously been filled.
- Success of revegetation plantings shall be determined by an 85% survival rate at the end of monitoring. Should the monitoring results indicate that the goals of the protection measures are not being met, those measures will be modified, and monitoring will continue until the success criteria is met.

Wildlife

Special status wildlife species have the potential to be adversely affected by the Project due to a temporary increase in noise during construction, temporary and permanent habitat displacement, and/or loss of habitat. The following measures are recommended for inclusion into environmental documentation to avoid or reduce impacts to special status wildlife species.

Special Status Bats

One special status bat (the Pallid Bat) has moderate potential to roost within the BSA, specifically on the existing bridge. To reduce potential impacts to special status bats that may roost in the BSA, the following measure is recommended.

Measure BIO-5: Protect Special Status Bats

Remove confirmed or presumed-occupied bat roost habitat during seasonal periods of bat activity (when bats are volant, i.e., able to leave roosts) between March 1 and April 15 to avoid hibernating or September 1 and October 15 when young are capable of flying, and when evening temps rise above approximately 45 degrees F, and when no rainfall greater than ½ inches has occurred in the last 24 hours. Prior to demolition:

- A qualified bat biologist shall verify if the bridge is being used by roosting bats. If there are no roosting bats, demolition can proceed without restrictions.
- If roosting bats are found, and flushing of bats is necessary, it shall be supervised by a qualified biologist. When flushing bats structures shall be removed carefully to avoid harming individuals, and torpid bats given time to completely arouse and fly away. The bridge may need to be demolished using a stepped process where outer layers are removed on the first day, allowing bats to leave at night and find other roosting areas, and additional bridge sections removed on subsequent days until all bats have left the structure.

If trees or structures (e.g., bridge) cannot be removed during the volant period, i.e., Project activities occur during the bat maternity season which generally occur April 16 through August 30, a qualified bat biologist shall conduct surveys within suitable habitat, i.e., the bridge, for special status bats. Survey methodology shall include visual examination with binoculars or other appropriate methods.

- Surveys shall be conducted by a qualified biologist prior to construction in any areas where potential maternity roosts may be disturbed/removed. Surveys shall include a visual inspection of the impact area and any large trees/snags with cavities or loose bark or crevices within infrastructure. If the presence of a maternity roost is confirmed, an appropriate buffer distance would be established in consultation with the CDFW to ensure that construction noise would remain below disturbance thresholds for bats.
- Prior to March 1st, a qualified bat biologist can be employed to install bat exclusion devices at the bridge, such as nets, plastic drapes, or one-way tunnels, that allow bats to leave the roost but that do not permit their return. These devices would be installed by the end of February. Conduct exclusion activities at night and monitor the bridges to ensure that no bats return and roost in the bridges during the exclusion period and prior to the start of construction.

Nesting Birds

Several state special status birds have moderate potential to occur within the BSA, either for foraging, overwintering, or nesting, or have been previously documented in CSLO and are reasonably likely to occur. Given the marginal quality of potential habitat to support Least Bell's Vireo (federally and state endangered), the species is unlikely to occur in the Project Area. Similarly, Tricolored Blackbird (state threatened) are unlikely to occur within the Project Area given the lack of suitable breeding habitat. To protect state special status birds, as well as common migratory bird species that could nest within the Project Area, the following measure is recommended.

Measure BIO-6: Protect Special Status, Migratory and Nesting Birds

Ground disturbance and vegetation clearing shall be conducted, if possible, during the fall and/or winter months and outside of the avian nesting season (which is generally assumed to occur between March 15 – August 15) to avoid any direct effects to special status and protected birds. If ground disturbance or vegetation clearing cannot be confined to the fall and/or winter outside of the nesting season, a qualified ornithologist shall conduct pre-construction surveys within the vicinity of the BSA, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special status bird species. The ornithologist shall conduct at minimum a one-day pre-construction survey within the seven-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the nesting season, a qualified ornithologist shall conduct a supplemental avian pre-construction survey before project work is reinitiated.

If active nests are detected within the construction footprint or within 500 feet of construction activities, the ornithologist shall flag a buffer around each nest. Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged or nesting activity has ceased. If nests are documented outside of the construction (disturbance) footprint, but within 500 feet of the construction area, buffers would be implemented as needed. In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the CDFW

and, if applicable, with the USFWS. Buffer sizes would take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds.

If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

Special Status Amphibians

One federally-listed amphibian, the California Red-legged Frog, is known to occur within CSLO as well as in Dairy Creek, which the Project Area overlaps (CDFW 2021b, USFWS 2015). Additionally, one state special status amphibian, the Coast Range Newt, has a moderate potential to occur. To reduce potential impacts on this species as well as state special status amphibians, the following measure is recommended following guidance from the PBO (USFWS 2015).

Measure BIO-7: Protect California Red-legged Frog and Special Status Amphibians

Environmental Awareness Briefings. As detailed in Measure BIO-3, prior to construction or related activities in areas where the California Red-legged Frog and Coast Range Newt are likely to occur, environmental staff will brief contractors and other participants about its potential presence. The briefings will include a flyer with photos and a description of the species and its habitat, the general provisions of the ESA and the necessity to comply, and the measures that are being implemented to conserve the species as they relate to the activity.

Pre-Construction Surveys. If work is scheduled to occur in aquatic or riparian habitat of the California Red-legged Frog and the Coast Range Newt, including but not limited to the ephemeral stream at the western limit of the Project Area, a qualified biologist will conduct a pre-construction survey prior to the start of work in that area. The survey will include one night survey on the evening that precedes the start of work and one daytime survey completed the morning that work is scheduled to begin. If project activities cease for more than three days, a qualified biologist will conduct another survey prior to project activities resuming. The survey will include inspection of small mammal or other burrows within the potential disturbance area, if any are present. If a California Red-legged Frog is found, work will not begin in that area and the frog will be allowed to leave the area on its own. If the frog does not leave the area within 24 hours, the USFWS Ventura Field Office will be contacted for guidance on how to proceed. In the event that a Coast Range Newt is observed in an active construction zone, the contractor shall halt construction activities in

the immediate area where observed and the newt shall be moved to a safe location in similar habitat outside of the construction zone.

Construction Restrictions. Construction activities within riparian, aquatic, or wetland area will be limited to the minimum area and duration required to meet the project design requirements.

Seasonal Restrictions. Construction will not occur in wetland areas during the breeding season (generally November through April) of the California Red-legged Frog.

Hazardous Materials. All hazardous materials will be stored in designated locations at least 100 feet from wetland areas, along with appropriate materials for containing accidental spills. Any hazardous spill will be cleaned up immediately in accordance with established guidelines.

Decontamination for Chytrid Fungus and Other Pathogens. Any equipment (boots, nets, shovels) that has been used off of the installation will be decontaminated prior to conducting activities in riparian or wetland habitat for the California Red-legged Frog. Decontamination will comprise the equipment being scrubbed with a 75 percent ethanol solution or bleach solution (0.5-1.0 cup/gallon of water) and then rinsed with water. Decontamination will not occur within 100 feet of wetlands.

Project Area. Prior to commencing construction in or near habitat of the California Red-legged Frog, the Project Area will be clearly delineated with stakes or brightly colored flags so that equipment is confined. The Project Area will comprise the smallest practical space.

Erosion Control. Erosion control and other best management practices will be implemented in areas where exposed soils could potentially lead to sedimentation in habitat of the California Red-legged Frog.

Trash Removal. All food related trash will be stored in closed containers and removed from the Project Area at the end of the day. The area will be kept clean.

Exclusion Fencing. Silt fencing or exclusion fencing will be maintained around ground disturbance areas during construction activities. The intent of the fencing is to prevent California Red-legged Frogs from entering the construction area. The fencing will be inspected as part of the pre-construction day survey and periodically thereafter to ensure that there are no gaps which might allow frogs to pass.

Special Status Reptiles

One state special status reptile, the Western Pond Turtle, was found to have a moderate potential to occur within the BSA. Construction has the potential to crush or bury reptile species, and/or adversely affect water quality (habitat). Although habitat quality within the Project Area is low compared to nearby suitable habitat, Western Pond Turtles have the potential to also utilize upland habitats within the BSA. To protect special status reptiles the following measure is recommended to avoid or reduce potential Project-related impacts.

Measure BIO-8: Protect Special Status Reptiles

No more than one week prior to commencement of ground disturbance within 50 feet of suitable aquatic turtle habitat (e.g., creeks, riparian areas), a qualified biologist shall perform a pre-construction survey for Western Pond Turtles and shall relocate any individuals or eggs that occur within the work-impact zone to nearby suitable habitat.

In the event that a Western Pond Turtle (or other special status reptile) is observed in an active construction zone, the contractor shall halt construction activities in the immediate area where

observed and the turtle shall be moved to a safe location in similar habitat outside of the construction zone.

Special Status Fish

One federally-listed fish, the Steelhead, is known to occur in Dairy Creek. Potential adverse effects may result to this species as a result of construction (see details in **Section 6.6**). To protect special status fish the following measure is recommended to avoid or reduce potential Project-related impacts.

Measure BIO-9: Protect Special Status Fish

- All instream work will be completed during the regulated in-water work window, typically mid-June through late October depending on rainfall. Limit instream work between mid-June through late October to reduce potential impacts to Steelhead spawning and migration.
- Fish relocation, if needed, will comply with all NMFS, CDFW, and Project permit conditions.
- CMD shall ensure that any vibratory pile driving will adhere to a minimum setback of ten feet from any wetted aquatic habitat (Dairy Creek) to avoid noise and vibration-related impacts to special status fish.
- Implementation of BMPs to reduce erosion, dust, and potential for polluted run-off into Dairy Creek would be implemented to minimize impacts to aquatic resources. Measures may include silt fences, sediment traps, and other erosion control devices during Project construction to promote bank stabilization and minimize impacts to special status fish species associated with runoff and sedimentation.
- Dairy Creek is wetted at the time of construction, temporary dewatering may be necessary to divert stream flow away from the Project Area. Water would be pumped downstream to maintain stream flows at all times downstream during construction. The creek channel and flow regime would be modified in compliance with CDFG and USACE conditions. Upon completion of construction activities, any barriers to flow would be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Impacts to aquatic habitat connectivity are expected to be minimal and of short duration.

8. Conclusion

Based on the biological reconnaissance survey, suitable habitat, and nearby occurrence records:

– One SNC, specifically the riparian vegetation adjacent to Dairy Creek, occurs within the Project Area;
– Two federally-listed wildlife species may occur within the Project Area (California Red-legged Frog and Steelhead). An additional 18 state special status wildlife species have a moderate potential to occur within the BSA (including the Project Area) or have previously been documented within CSLO, none of which are ESA- or CESA-listed species;
– Waters of the U.S. (Dairy Creek) and riparian habitat were observed within the Project Area; and
– No wetland habitats were observed within the Project Area.

Sensitive Natural Communities (SNCs)

Riparian habitat, a SNC, is along Dairy Creek. If construction of the Project were to removal riparian habitat, a Riparian Vegetation Management Plan will be prepared prior to the start of construction to protect and restore the riparian vegetation (Measure BIO-4).

Wildlife

One special status bat (not federally- or state-listed), 10 state special status birds and numerous common nesting birds protected by the MBTA and FGC, two special status amphibians (one of which is federally-listed [the California Red-legged Frog]), one special status reptile (not federally- or state-listed), and one special status fish (federally-listed south-central California coast DPS of Steelhead) have a moderate potential to occur within the Project Area or directly adjacent in the BSA or have been previously documented in CSLO.

With implementation of environmental awareness briefings (see Measure BIO-3), pre-construction surveys and associated actions if species are discovered to protect special status bats (see Measure BIO-5), nesting birds (see Measures BIO-6), special status amphibians (see Measure BIO-7), and special status reptiles (see Measure BIO-8), as well as construction-related protection measures to protect special status fish (see Measure BIO-9) and adjacent aquatic habitat (see Measure BIO-1 and Measure BIO-2), potential Project-related impacts to these species or habitat will be reduced to a less than significant level.

Through the avoidance and minimization measures presented in **Section 7.1**, it is believed that potential adverse impacts to sensitive biological resources can be avoided. More specific measures may be identified in subsequent environmental review and permit applications.

Formal or informal consultation with NMFS is anticipated.

9. Scope and limitations

This report has been prepared by GHD for the California Military Department and may only be used and relied on by the California Military Department for the purpose agreed between GHD and California Military Department as set out in Section 1 of this report.

GHD otherwise disclaims responsibility to any person other than the California Military Department arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions, and any recommendations in this report are based on assumptions made by GHD described in this report (refer to Section 12 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

10. Assumptions

Conclusions for this BRR were drawn from the reconnaissance survey, as well as web-based sensitive species database and literature searches. As these only serve as a snapshot of conditions during a short time period, they may not accurately reflect actual occurrence of species presence in the Project vicinity at a given time. Therefore, conclusions in this BRR have been based more on the assumption of presence or non-presence given existing habitat in the Project Area and BSA, and impact minimization measures have been developed accordingly. In addition, all determinations herein were based on the current Project footprint, known as the Project Area (**Appendix A**, **Figure 2**) and proposed Project Description. If the Project footprint or construction methods change significantly prior to Project implementation, determinations would need to be revisited, to ensure that they are still accurate.

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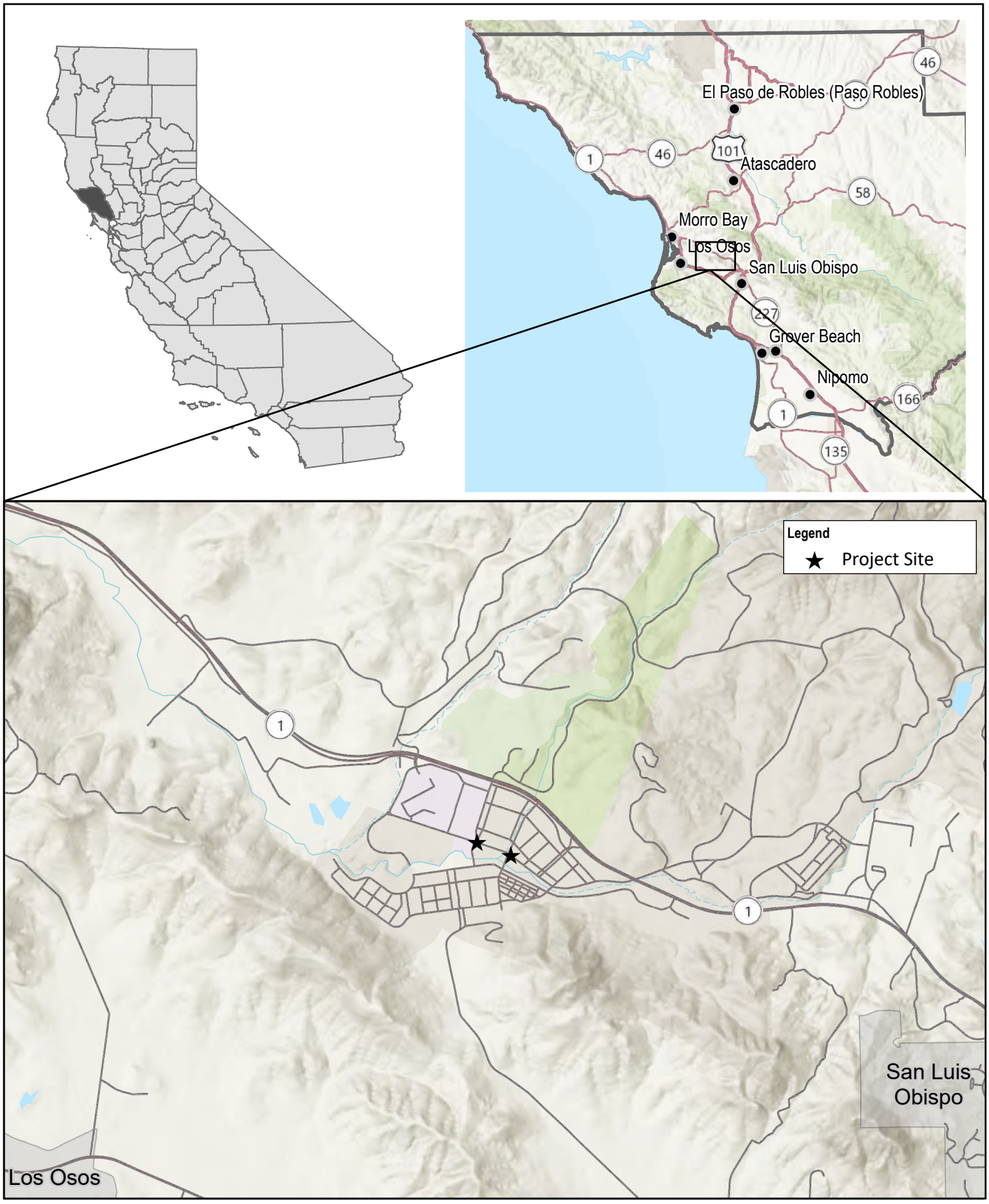
Kevin Janni, Senior Scientist, Co-Author

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Appendices

Appendix A

Figures



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Miles

Map Projection: Lambert Conformal Conic
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The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

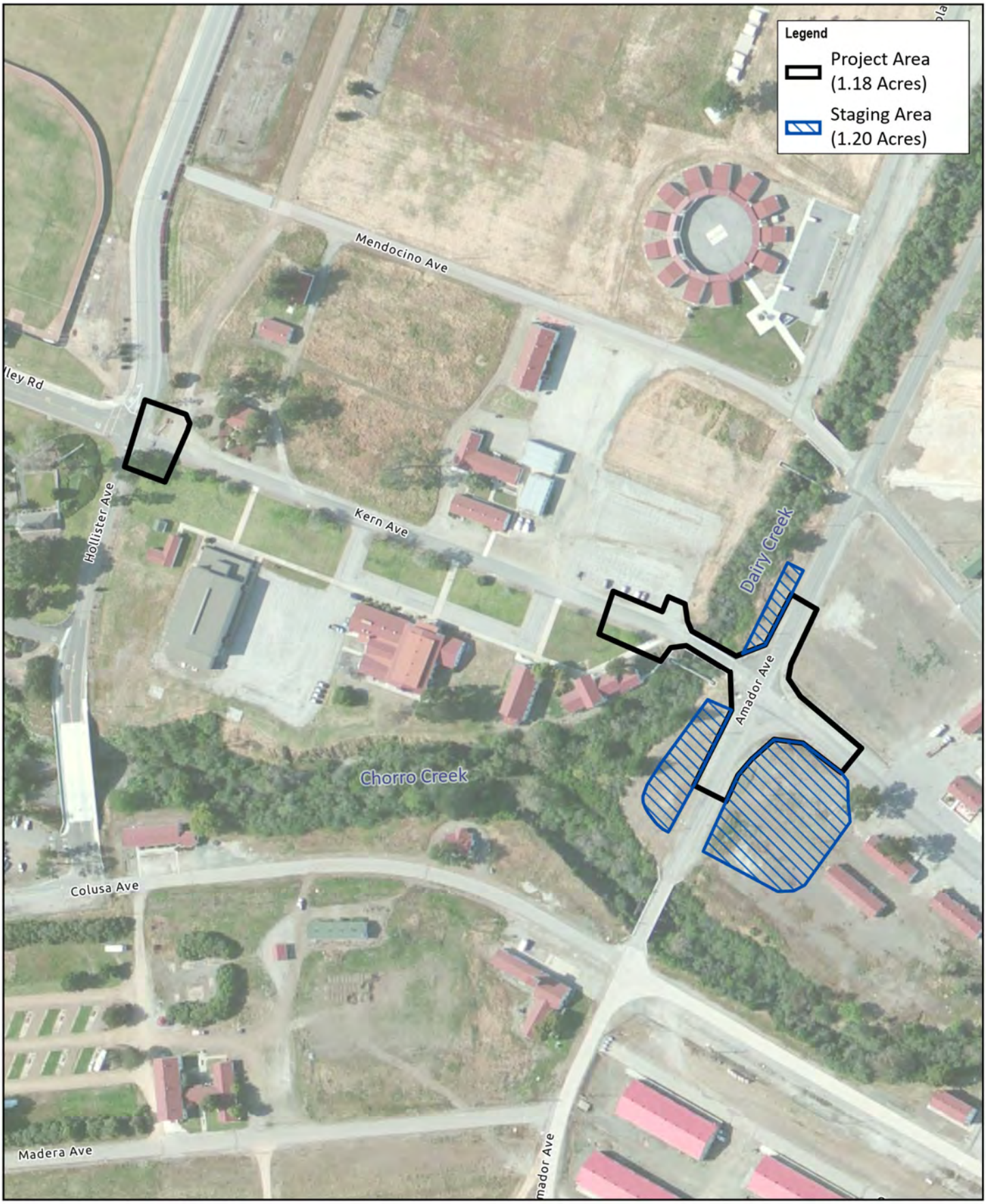
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Revision No. **-**
Date **Nov 2021**

Vicinity Map

FIGURE 1

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The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

Project No. **12562944**
Revision No. **-**
Date **Jan 2022**

Project Area

FIGURE 2

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Data source: Road Names: Esri Community Maps Contributors, County Of San Luis Obispo, California State Parks, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA
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Map Projection: Lambert Conformal Conic
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The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

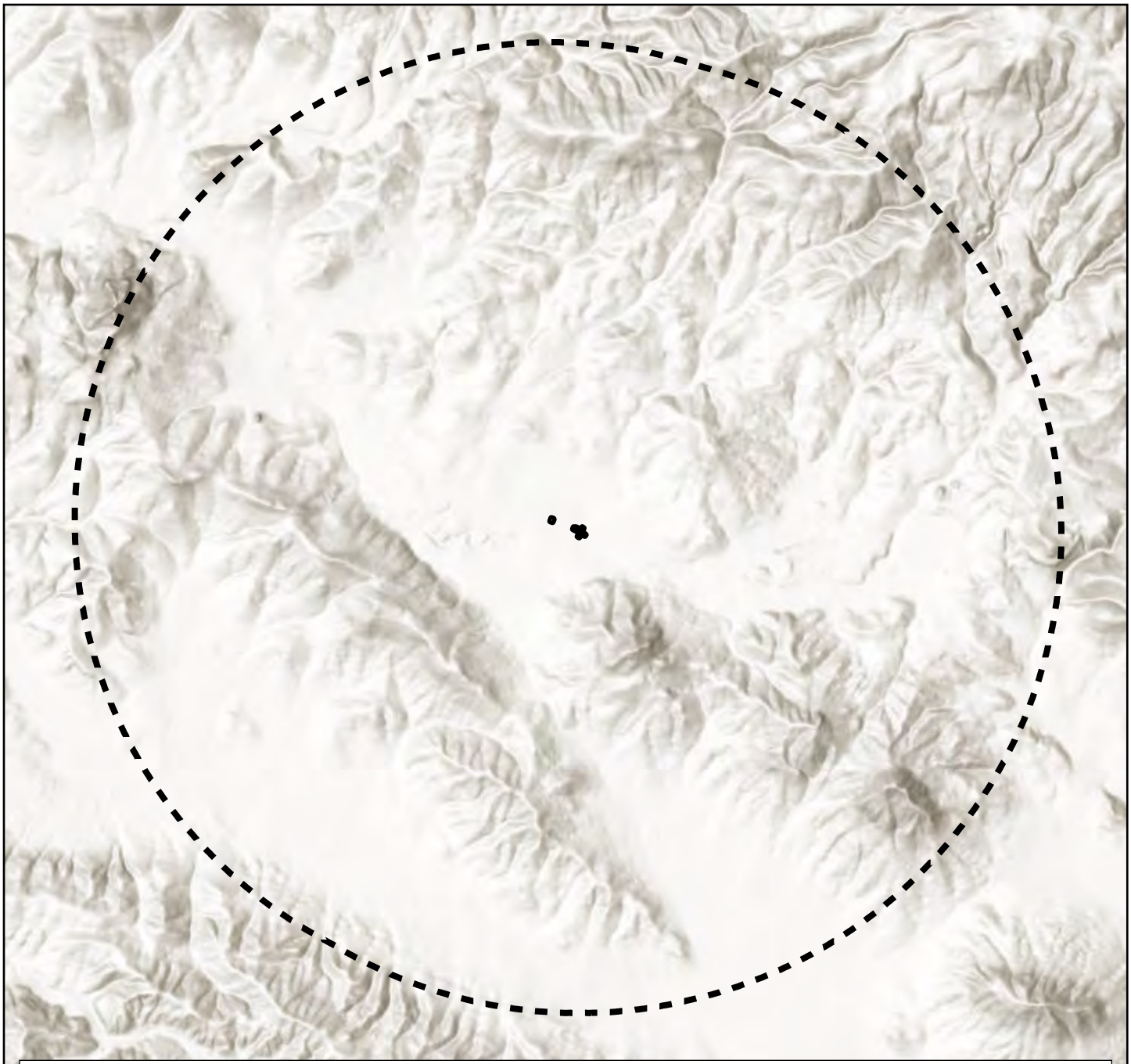
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Biological Study Area

FIGURE 3

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Data source: Road Names: Esri Community Maps Contributors, County Of San Luis Obispo, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA
Outside: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created by:



Legend

- 3 Mile Radius
- Project Area (1.18 Acres)

Species

- Betty's dudleya
- Blochman's dudleya
- Brewer's spineflower
- California horned lark
- California Red-legged Frog
- Cambria morning-glory
- Central Maritime Chaparral
- Chorro Creek bog thistle
- Congdon's tarplant
- Eastwood's larkspur
- Jones' layia
- La Panza mariposa-lily
- Miles' milk-vetch
- Morro Bay Kangaroo Rat
- Northern California Legless Lizard
- Oso manzanita
- Palmer's monardella
- Pecho manzanita
- San Luis Obispo owl's-clover
- San Luis Obispo sedge
- San Luis mariposa-lily
- Townsend's Big-eared Bat
- adobe sanicle
- Burrowing Owl
- chaparral ragwort
- Coast Horned Lizard
- dacite manzanita
- dwarf soaproot
- most beautiful jewelflower
- mouse-gray dudleya
- Steelhead - south-central California coast DPS
- Tricolored Blackbird
- Western Pond Turtle
- white-tailed Kite

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Miles

Map Projection: Lambert Conformal Conic
Horizontal Datum: NAD 1983 2011
Grid: NAD 1983 2011 StatePlane California V FIPS 0405 Ft US

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The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

Project No. **12562944**
Revision No. **-**
Date **Nov 2021**

CNDDB Records within 3 Miles

FIGURE 4

\\ghdnet\ghd\US\Roseville\Projects\561\12562944\GIS\Maps\Deliverables\12562944_CampSLO_BRR.aprx - 12562944_04_CNDDB Print date: 18 Nov 2021 - 11:39

Data source: World Hillshade: Esri, NASA, NGA, USGS, FEMA. Created by: ethompson3
CNDDB data from Nov 2021



Paper Size ANSI A

0 80 160 240 320 400

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: NAD 1983 2011
Grid: NAD 1983 2011 StatePlane California V FIPS 0405 Ft US

N

GHD

The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

Project No. **12562944**
Revision No. **-**
Date **Dec 2021**

Topography Map

FIGURE 5

\\ghdnet\ghd\US\Roseville\Projects\561\12562944\GIS\Maps\Deliverables\12562944_CampSLO_BRR.aprx - 12562944_05_Topo Print date: 15 Dec 2021 - 14:06

Data source: Road Names: Esri Community Maps Contributors, County Of San Luis Obispo, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA
Outside: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created by:



Paper Size ANSI A

0 80 160 240 320 400

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: NAD 1983 2011
Grid: NAD 1983 2011 StatePlane California V FIPS 0405 Ft US

N

GHD

The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

Project No. **12562944**
Revision No. **-**
Date **Dec 2021**

National Wetland Inventory

FIGURE 6

\\ghdnet\ghd\US\Roseville\Projects\561\12562944\GIS\Maps\Deliverables\12562944_CampSLO_BRR.aprx - 12562944_06_NWI Print date: 15 Dec 2021 - 14:04

Data source: Road Names: Esri Community Maps Contributors, County Of San Luis Obispo, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA
Outside: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created by:



Paper Size ANSI A

0 20 40 60 80 100

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: NAD 1983 2011
Grid: NAD 1983 2011 StatePlane California V FIPS 0405 Ft US

N

GHD

The California Army National Guard (CA ARNG)
Vehicle Bridge 3 Replacement
Camp San Luis Obispo

Ordinary High Water Mark

Project No. **12562944**
Revision No. **-**
Date **Dec 2021**

FIGURE 7

\\ghdnet\ghd\US\Roseville\Projects\561\12562944\GIS\Maps\Deliverables\12562944_CampSLO_BRR.aprx - 12562944_07_OHWM Print date: 21 Dec 2021 - 12:15

Data source: Road Names: Esri Community Maps Contributors, County Of San Luis Obispo, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA
Outside: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created by:

Appendix B

NRCS Soil Resources Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for San Luis Obispo County, California, Coastal Part

Camp SLO Vehicular Bridge 3 Replacement Project



December 21, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Luis Obispo County, California, Coastal Part
Survey Area Data: Version 14, Sep 9, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
128	Cropley clay, 2 to 9 percent slopes, MLRA 14	0.8	65.5%
198	Salinas silty clay loam, 2 to 9 percent slopes, MLRA 14	0.4	34.5%
Totals for Area of Interest		**1.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Luis Obispo County, California, Coastal Part

128—Cropley clay, 2 to 9 percent slopes, MLRA 14

Map Unit Setting

National map unit symbol: 2tb9j
Elevation: 0 to 2,340 feet
Mean annual precipitation: 12 to 28 inches
Mean annual air temperature: 56 to 60 degrees F
Frost-free period: 270 to 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Cropley and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cropley

Setting

Landform: Terraces, alluvial fans
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope, tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from calcareous shale

Typical profile

A1 - 0 to 11 inches: clay
Bss1 - 11 to 51 inches: clay
BCk1 - 51 to 79 inches: sandy clay loam

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (1.0 to 3.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R014XD001CA - CLAYEY
Hydric soil rating: No

Minor Components

Salinas

Percent of map unit: 3 percent
Landform: Alluvial fans, terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope, tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Los osos

Percent of map unit: 3 percent
Landform: Ridges, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, concave
Across-slope shape: Convex, concave
Hydric soil rating: No

Capay

Percent of map unit: 2 percent
Landform: Flood plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope, dip
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Clear lake

Percent of map unit: 2 percent
Landform: Basin floors
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

198—Salinas silty clay loam, 2 to 9 percent slopes, MLRA 14

Map Unit Setting

National map unit symbol: 2tyxy
Elevation: 0 to 1,480 feet
Mean annual precipitation: 16 to 26 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 300 to 360 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Salinas and similar soils: 85 percent
Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Salinas

Setting

Landform: Flood plains, terraces, alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sedimentary rock

Typical profile

H1 - 0 to 26 inches: silty clay loam
H2 - 26 to 70 inches: silty clay loam

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R014XD109CA - FINE LOAMY BOTTOM
Hydric soil rating: No

Minor Components

Pachic haploxerolls, fine

Percent of map unit: 6 percent

Cropley, clay

Percent of map unit: 3 percent

Marimel, silty clay loam

Percent of map unit: 3 percent

Salinas, mod deep to deep to clay

Percent of map unit: 3 percent

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Appendix C

List of Species Detected On-site

Table C-1 Plant Species Observed On-site

Scientific Name	Common Name	Family	Origin	Wetland Status
Acer saccharinum	silver maple	Sapindaceae	non-native	FAC
Acmispon glaber	deerweed	Fabaceae	native	-
Ageratina adenophora	sticky snakeroot	Asteraceae	invasive non-native	FACU
Artemisia californica	California sagebrush	Asteraceae	native	-
Baccharis pilularis	coyote bush	Asteraceae	native	-
Brassica nigra	black mustard	Brassicaceae	invasive non-native	-
Cirsium vulgare	bull thistle	Asteraceae	invasive non-native	FACU
Equisetum telmateia	Giant horsetail	Equisetaceae	native	FACW
Eriogonum fasciculatum	California buckwheat	Polygonaceae	native	-
Erodium moschatum	musky stork's bill	Geraniaceae	non-native	-
Eschscholzia californica	California poppy	Papaveraceae	native	-
Genista monspessulana	French broom	Fabaceae	invasive non-native	-
Helminthotheca echioides	bristly oxtongue	Asteraceae	invasive non-native	FAC
Juglans californica	California black walnut	Juglandaceae	native	FACU
Juniperus communis	common juniper	Cupressaceae	non-native	FACU
Morus alba	mulberry	Moraceae	non-native	FACU
Nicotiana glauca	tree tobacco	Solanaceae	invasive non-native	FAC
Opuntia ficus-indica	Indian fig opuntia	Cactaceae	non-native	-
Phoenix canariensis	Canary island date palm	Arecaceae	non-native	-
Pinus radiata	Monterey pine	Pinaceae	native	-
Pittosporum undulatum	Australian cheesewood	Pittosporaceae	invasive non-native	-
Plantago lanceolata	English plaintain	Plantaginaceae	unknown	FAC
Platanus racemosa	western sycamore	Platanaceae	native	FAC
Psuedognaphalium canescens ssp. microcephalum	Wright's cudweed	Asteraceae	native	FACU
Quercus agrifolia	coast live oak	Fagaceae	native	-
Rubus ursinus	California blackberry	Rosaceae	native	FAC
Salix lasiolepis	arroyo willow	Salicaceae	native	FACW
Salsola tragus	Russian thistle	Chenopodiaceae	invasive non-native	FACU
Scirpus microcarpus	panicled bulrush	Cyperaceae	native	OBL
Sequoia sempervirens	coast redwood	Cupressaceae	native	-
Toxicodendron diversilobum	poison oak	Anacardiaceae	native	FACU
Trifolium repens	white clover	Fabaceae	non-native	FACU
Umbellularia californica	California bay laurel	Lauraceae	native	FAC
Vinca major	greater periwinkle	Apocynaceae	invasive non-native	FACU

Table C-2. List of Terrestrial Wildlife Detected On-site

Scientific Name	Common Name	Detection Type	Special Status	Origin
Procyon lotor	Raccoon	tracks	None	native
Odocoileus hemionus	Mule Deer	tracks, scat	FGC	native
Sceloporus occidentalis	Western Fence Lizard	seen	None	native
Otospermophilus beecheyi	California Ground Squirrel	burrows	None	native
Thomomys bottae	Pocket gopher	burrows	None	native

FGC = protected by California Fish and Game Code

Table C-3. List of Breeding Codes, Associated Bird Behavior, and Breeding Status (the highest-ranking code was recorded for each species during the survey).

Breeding Rank	Breeding Code	Description	Breeding Status
1	N	Active nest	Breeding
2	M	Carrying nesting material	Breeding
3	F	Carrying food or fecal sac	Breeding
4	D	Distraction display/feigning	Breeding
5	L	Local young fed by parents	Breeding
6	Y	Local young incapable of sustained flight	Breeding
7	C	Copulation or courtship observed	Breeding
8	T	Territorial behavior	Unconfirmed
9	S	Territorial song or drumming heard	Unconfirmed
10	E	Encountered in study area	Unconfirmed
11	O	Encountered flying over the study area	Unconfirmed

Table C-4. Bird Species Detected On-site

Alpha Code	Common Name	Scientific Name	Highest Breeding Status	Breeding Code	Special Status
CAQU	California Quail	*Callipepla californica*	Encountered in study area	E	None
ANHU	Anna's Hummingbird	*Calypte anna*	Territorial song or drumming heard	S	FGC/MBTA
TUVU	Turkey Vulture	*Cathartes aura*	Encountered flying over the study area	O	FGC/MBTA
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	Encountered flying over the study area	O	FGC/MBTA
HAWO	Hairy Woodpecker	*Dryobates villosus*	Encountered in study area	E	FGC/MBTA
AMKE	American Kestrel	*Falco sparverius*	Encountered in study area	E	FGC/MBTA
BLPH	Black Phoebe	*Sayornis nigricans*	Encountered in study area	E	FGC/MBTA
CASJ	California Scrub-Jay	*Aphelocoma californica*	Encountered in study area	E	FGC/MBTA
CBCH	Chestnut-backed Chickadee	*Poecile rufescens*	Encountered in study area	E	FGC/MBTA
WEBL	Western Bluebird	*Sialia mexicana*	Encountered in study area	E	FGC/MBTA
HOFI	House Finch	*Haemorhous mexicanus*	Encountered in study area	E	FGC/MBTA
AUWA	Audubon's Warbler	*Setophaga coronata auduboni*	Encountered in study area	E	FGC/MBTA

FGC = protected by California Fish and Game Code
MBTA = protected by the federal Migratory Bird Treaty Act

Appendix D

Site Visit Photographs



Image D-1. View of Dairy Creek beneath existing bridge, facing south.



Image D-2. View of Dairy Creek with pool from beneath existing bridge facing south.



Image D-3. View of Dairy Creek from beneath existing bridge facing north.



Image D-4. View of Dairy Creek from beneath existing bridge facing north.



Image D-5. View of existing bridge from Dairy Creek.



Image D-6. View of existing bridge along Kern Avenue over Dairy Creek facing west.



Image D-7. View of Amador Avenue from existing bridge along Kern Avenue over Dairy Creek facing southeast.



Image D-8. View of intersection of Kern Avenue and Amador Avenue from existing bridge along Kern Avenue over Dairy Creek facing east.



Image D-9. View of Amador Avenue from existing bridge along Kern Avenue over Dairy Creek facing north.



Image D-10. View of Kern Avenue from existing bridge along Kern Avenue over Dairy Creek facing west.



Image D-11. View of Kern Avenue from near existing gate facing east.



Image D-12. View from Kern Avenue near existing gate facing north.



Image D-13. View from Kern Avenue near existing gate facing south.



Image D-14. View of existing gate at Kern Avenue facing west.

Appendix E

Database Search Results (CNDDB, CNPS, IPaC, NMFS)

Appendix E, Table 1. Vehicular Bridge 3 Replacement Project - 9-quad search of CDFW's California Natural Diversity Data Base centered on the Project quad (San Luis Obispo) and surrounding eight quadrangles (Atascadero, Morro Bay North, Morro Bay South, Port San Luis, Pismo Beach, Arroyo Grande NE, Lopez Mountain, and Santa Margarita).

SciName	ComName	Taxon Group	FedList	CalList	GRank	SRank	CRPR	Other Status	Habitat
Accipiter cooperii	Cooper's hawk	Birds	None	None	G5	S4		CDFW_WL-Watch List | IUCN_LC-	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian
Agelaius tricolor	tricolored blackbird	Birds	None	Threatened	G1G2	S1S2		BLM_S-Sensitive | CDFW_SSC-	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to
Agrostis hooveri	Hoover's bent grass	Monocots	None	None	G2	S2	1B.2	BLM_S-Sensitive | USFS_S-	Chaparral, cismontane woodland, closed-cone coniferous forest, valley and
Ammodramus savannarum	grasshopper sparrow	Birds	None	None	G5	S3		CDFW_SSC-Species of Special	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain
Anniella pulchra	Northern California legless lizard	Reptiles	None	None	G3	S3		CDFW_SSC-Species of Special	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils
Antrozous pallidus	pallid bat	Mammals	None	None	G4	S3		BLM_S-Sensitive | CDFW_SSC-	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats
Aquila chrysaetos	golden eagle	Birds	None	None	G5	S3		BLM_S-Sensitive | CDF_S-	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide
Arctostaphylos luciana	Santa Lucia manzanita	Dicots	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Ra	Chaparral, cismontane woodland. On shale (one site says serpentine) outcrops, on
Arctostaphylos morroensis	Morro manzanita	Dicots	Threatened	None	G1	S1	1B.1		Chaparral, cismontane woodland, coastal dunes, coastal scrub. On Baywood
Arctostaphylos osoensis	Oso manzanita	Dicots	None	None	G1	S1	1B.2		Chaparral, cismontane woodland. Usually occurs in openings w/in oak woodland on
Arctostaphylos pechoensis	Pecho manzanita	Dicots	None	None	G2	S2	1B.2		Closed-cone coniferous forest, chaparral, coastal scrub. Grows on siliceous shale with other

Arctostaphylos pilosula	Santa Margarita manzanita	Dicots	None	None	G2?	S2?	1B.2	BLM_S-Sensitive | SB_SBBG-	Closed-cone coniferous forest, chaparral, broadleafed upland forest, cismontane woodland.
Arctostaphylos rudis	sand mesa manzanita	Dicots	None	None	G2	S2	1B.2	BLM_S-Sensitive | SB_SBBG-	Chaparral, coastal scrub. On sandy soils in Lompoc/Nipomo area. 20-335 m.
Arctostaphylos tomentosa ssp. daciticola	dacite manzanita	Dicots	None	None	G4T1	S1	1B.1		Chaparral, cismontane woodland. Only known from one site in SLO County on dacite
Ardea herodias	great blue heron	Birds	None	None	G5	S4		CDF_S-Sensitive | IUCN_LC-	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in
Arenaria paludicola	marsh sandwort	Dicots	Endangered	Endangered	G1	S1	1B.1	SB_SBBG-Santa Barbara	Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	Dicots	None	None	G5T2	S2	1B.2		Coastal scrub. Clay soils. 50-385 m.
Athene cunicularia	burrowing owl	Birds	None	None	G4	S3		BLM_S-Sensitive | CDFW_SSC-	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-
Atractelmis wawona	Wawona riffle beetle	Insects	None	None	G3	S1S2			Aquatic; found in riffles of rapid, small to medium clear mountain streams; 2000-5000 ft elev.
Atriplex coulteri	Coulter's saltbush	Dicots	None	None	G3	S1S2	1B.2	SB_CalBG/RSABG-California/Ra	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs,
Batrachoseps minor	lesser slender salamander	Amphibians	None	None	G1	S1		CDFW_SSC-Species of Special	South Santa Lucia Mountains in tanbark oak, coast live oak, blue oak, sycamore and laurel.
Bombus caliginosus	obscure bumble bee	Insects	None	None	G4?	S1S2		IUCN_VU-Vulnerable	Coastal areas from Santa Barbara County to north to Washington state. Food plant
Bombus crotchii	Crotch bumble bee	Insects	None	None	G3G4	S1S2			Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera
Bombus occidentalis	western bumble bee	Insects	None	None	G2G3	S1		USFS_S-Sensitive	Once common and widespread, species has declined precipitously from central CA to

Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	Threatened	None	G3	S3		IUCN_VU-Vulnerable	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast
Buteo regalis	ferruginous hawk	Birds	None	None	G4	S3S4		CDFW_WL-Watch List | IUCN_LC-	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper
Calochortus obispoensis	San Luis mariposa-lily	Monocots	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Ra	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Often in
Calochortus simulans	La Panza mariposa-lily	Monocots	None	None	G2	S2	1B.3	SB_CRES-San Diego Zoo CRES	Valley and foothill grassland, cismontane woodland, chaparral, lower montane coniferous forest.
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	Dicots	None	None	G3T2?	S2?	4.2		Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Usually
Camissoniopsis hardhamiae	Hardham's evening-primrose	Dicots	None	None	G2	S2	1B.2	BLM_S-Sensitive | USFS_S-	Chaparral, cismontane woodland. Sandy, decomposed carbonate. 60-1000 m.
Carex comosa	bristly sedge	Monocots	None	None	G5	S2	2B.1	IUCN_LC-Least Concern	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet
Carex obispoensis	San Luis Obispo sedge	Monocots	None	None	G3?	S3?	1B.2	BLM_S-Sensitive | SB_SBBG-	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Dicots	None	None	G5T2	S2	1B.2		Valley and foothill grassland, meadows and seeps. Sometimes on serpentine. 9-485
Ceanothus impressus var. nipomensis	Nipomo Mesa ceanothus	Dicots	None	None	G3T2	S2	1B.2		Chaparral. Sandy. 10-215 m.
Ceanothus thyrsiflorus var. obispoensis	San Luis Obispo ceanothus	Dicots	None	None	G5T1	S1	1B.1		Chaparral, cismontane woodland. Dacite. 140-225 m.
Central Dune Scrub	Central Dune Scrub	Dune	None	None	G2	S2.2			
Central Foredunes	Central Foredunes	Dune	None	None	G1	S1.2			

Central Maritime Chaparral	Central Maritime Chaparral	Scrub	None	None	G2	S2.2			
Centromadia parryi ssp. congdonii	Congdon's tarplant	Dicots	None	None	G3T1T2	S1S2	1B.1	BLM_S-Sensitive | SB_CalBG/R	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0-
Charadrius nivosus nivosus	western snowy plover	Birds	Threatened	None	G3T3	S2		CDFW_SSC-Species of Special	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable
Chenopodium littoreum	coastal goosefoot	Dicots	None	None	G1	S1	1B.2		Coastal dunes. Generally on sandy soils, and on dunes. 5-40 m.
Chlorogalum pomeridianum var. minus	dwarf soaproot	Monocots	None	None	G5T3	S3	1B.2	BLM_S-Sensitive | SB_SBBG-	Chaparral. Serpentine. 120-1220 m.
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Dicots	Endangered	Endangered	G4?T1	S1	1B.2	BLM_S-Sensitive | SB_CalBG/R	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10
Chorizanthe aphanantha	Irish Hills spineflower	Dicots	None	None	G1	S1	1B.1		Chaparral, coastal scrub. Serpentinite, rocky to gravelly. 100-370 m.
Chorizanthe breweri	Brewer's spineflower	Dicots	None	None	G3	S3	1B.3	BLM_S-Sensitive | USFS_S-	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest. Rocky or
Chorizanthe rectispina	straight-awned spineflower	Dicots	None	None	G2	S2	1B.3	BLM_S-Sensitive | USFS_S-	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral. 45-1040
Cicindela hirticollis gravida	sandy beach tiger beetle	Insects	None	None	G5T2	S2			Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco
Cirsium fontinale var. obispoense	Chorro Creek bog thistle	Dicots	Endangered	Endangered	G2T2	S2	1B.2	SB_CalBG/RSABG-California/Ra	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	Dicots	None	None	G3G4T2	S2	1B.2		Chaparral. Openings; on serpentinite. Often on steep rocky slopes and along disturbed
Cirsium rhothophilum	surf thistle	Dicots	None	Threatened	G1	S1	1B.2	BLM_S-Sensitive | SB_SBBG-	Coastal dunes, coastal bluff scrub. Open areas in central dune scrub; usually in coastal

Cladonia firma	popcorn lichen	Lichens	None	None	G4	S1	2B.1		Coastal dunes, coastal scrub. On soil and detritus on stabilized sand dunes, in pure stands or
Clarkia speciosa ssp. immaculata	Pismo clarkia	Dicots	Endangered	Rare	G4T1	S1	1B.1	SB_CalBG/RSABG-California/Ra	Chaparral, cismontane woodland, valley and foothill grassland. On ancient sand
Coastal and Valley Freshwater	Coastal and Valley Freshwater	Marsh	None	None	G3	S2.1			
Coastal Brackish Marsh	Coastal Brackish Marsh	Marsh	None	None	G2	S2.1			
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	Threatened	Endangered	G5T2T3	S1		BLM_S-Sensitive | NABCI_RWL-	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in
Coelus globosus	globose dune beetle	Insects	None	None	G1G2	S1S2		IUCN_VU-Vulnerable	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	None	None	G4	S2		BLM_S-Sensitive | CDFW_SSC-	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the
Danaus plexippus pop. 1	monarch - California overwintering	Insects	Candidate	None	G4T2T3	S2S3		USFS_S-Sensitive	Winter roost sites extend along the coast from northern Mendocino to Baja California,
Delphinium parryi ssp. blochmaniae	dune larkspur	Dicots	None	None	G4T2	S2	1B.2		Chaparral, coastal dunes (maritime). On rocky areas and dunes. 18-305 m.
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	Dicots	None	None	G4T2	S2	1B.2		Chaparral, valley and foothill grassland. Serpentine. Openings. 60-640 m.
Delphinium umbraculorum	umbrella larkspur	Dicots	None	None	G3	S3	1B.3	BLM_S-Sensitive | USFS_S-	Cismontane woodland, chaparral. Mesic sites. 215-2075 m.
Dipodomys heermanni morroensis	Morro Bay kangaroo rat	Mammals	Endangered	Endangered	G4TH	SH		CDFW_FP-Fully Protected	Coastal sage scrub on the south side of Morro Bay. Needs sandy soil, but not active dunes, prefers
Dithyrea maritima	beach spectaclepod	Dicots	None	Threatened	G1	S1	1B.1	SB_SBBG-Santa Barbara	Coastal dunes, coastal scrub. Sea shores, on sand dunes, and sandy places near the shore. 3-

Dudleya abramsii ssp. bettinae	Betty's dudleya	Dicots	None	None	G4T2	S2	1B.2	SB_CalBG/RSABG-California/Ra	Coastal scrub, valley and foothill grassland, chaparral. On rocky, barren exposures of serpentine
Dudleya abramsii ssp. murina	mouse-gray dudleya	Dicots	None	None	G4T2	S2	1B.3	BLM_S-Sensitive | SB_CalBG/R	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine outcrops.
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Dicots	None	None	G3T2	S2	1B.1	SB_CalBG/RSABG-California/Ra	Coastal scrub, coastal bluff scrub, chaparral, valley and foothill grassland. Open, rocky
Elanus leucurus	white-tailed kite	Birds	None	None	G5	S3S4		BLM_S-Sensitive | CDFW_FP-	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes
Emys marmorata	western pond turtle	Reptiles	None	None	G3G4	S3		BLM_S-Sensitive | CDFW_SSC-	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually
Eremophila alpestris actia	California horned lark	Birds	None	None	G5T4Q	S4		CDFW_WL-Watch List | IUCN_LC-	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San
Eriastrum luteum	yellow-flowered eriastrum	Dicots	None	None	G2	S2	1B.2	BLM_S-Sensitive | USFS_S-	Broadleafed upland forest, cismontane woodland, chaparral. On bare sandy decomposed
Erigeron blochmaniae	Blochman's leafy daisy	Dicots	None	None	G2	S2	1B.2	BLM_S-Sensitive | SB_SBBG-	Coastal dunes, coastal scrub. Sand dunes and hills. 0-185 m.
Eriodictyon altissimum	Indian Knob mountainbalm	Dicots	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Ra	Chaparral (maritime), cismontane woodland, coastal scrub. Ridges in open, disturbed
Eryngium aristulatum var. hooveri	Hoover's button-celery	Dicots	None	None	G5T1	S1	1B.1	SB_CalBG/RSABG-California/Ra	Vernal pools. Alkaline depressions, vernal pools, roadside ditches and other wet
Eucyclogobius newberryi	tidewater goby	Fish	Endangered	None	G3	S3		AFS_EN-Endangered | IUCN_VU-	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego
Eumetopias jubatus	Steller sea lion	Mammals	Delisted	None	G3	S2		IUCN_EN-Endangered | MMC_SSC-	Breeds on Ano Nuevo, San Miguel and Farallon islands, Point St. George, and Sugarloaf.
Eumops perotis californicus	western mastiff bat	Mammals	None	None	G4G5T4	S3S4		BLM_S-Sensitive | CDFW_SSC-	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal

Extriplex joaquinana	San Joaquin spearscale	Dicots	None	None	G2	S2	1B.2	BLM_S-Sensitive | SB_CalBG/R	Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali
Falco columbarius	merlin	Birds	None	None	G5	S3S4		CDFW_WL-Watch List | IUCN_LC-	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms
Falco mexicanus	prairie falcon	Birds	None	None	G5	S4		CDFW_WL-Watch List | IUCN_LC-	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far
Fritillaria ojaiensis	Ojai fritillary	Monocots	None	None	G3	S3	1B.2	SB_SBBG-Santa Barbara	Broadleafed upland forest (mesic), chaparral, lower montane coniferous forest,
Fritillaria viridea	San Benito fritillary	Monocots	None	None	G2	S2	1B.2	BLM_S-Sensitive | USFS_S-	Chaparral, cismontane woodland. Serpentine slopes. Sometimes on rocky
Helminthoglypta walkeriana	Morro shoulderband (=banded dune)	Mollusks	Endangered	None	G1	S1S2		IUCN_CR-Critically Endangered	Restricted to the coastal strand in the immediate vicinity of Morro Bay. Inhabits the duff beneath
Horkelia cuneata var. puberula	mesa horkelia	Dicots	None	None	G4T1	S1	1B.1	USFS_S-Sensitive	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m.
Horkelia cuneata var. sericea	Kellogg's horkelia	Dicots	None	None	G4T1?	S1?	1B.1	SB_UCSC-UC Santa Cruz |	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal
Lanius ludovicianus	loggerhead shrike	Birds	None	None	G4	S4		CDFW_SSC-Species of Special	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert
Lasthenia californica ssp. macrantha	perennial goldfields	Dicots	None	None	G3T2	S2	1B.2	BLM_S-Sensitive	Coastal bluff scrub, coastal dunes, coastal scrub. 5-185 m.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Dicots	None	None	G4T2	S2	1B.1	BLM_S-Sensitive | SB_CalBG/R	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks,
Laterallus jamaicensis coturniculus	California black rail	Birds	None	Threatened	G3G4T1	S1		BLM_S-Sensitive | CDFW_FP-	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering
Layia jonesii	Jones' layia	Dicots	None	None	G2	S2	1B.2	USFS_S-Sensitive	Chaparral, valley and foothill grassland. Clay soils and serpentine outcrops. 5-245 m.

Linderiella occidentalis	California linderiella	Crustaceans	None	None	G2G3	S2S3		IUCN_NT-Near Threatened	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in
Lupinus ludovicianus	San Luis Obispo County lupine	Dicots	None	None	G1	S1	1B.2	USFS_S-Sensitive	Chaparral, cismontane woodland. Open areas in sandy soil, Santa Margarita formation.
Malacothamnus gracilis	slender bush-mallow	Dicots	None	None	G1Q	S1	1B.1	SB_CalBG/RSABG-California/Ra	Chaparral. Dry, rocky slopes. 150-335 m.
Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	Dicots	None	None	G3T2Q	S2	1B.2	SB_CalBG/RSABG-California/Ra	Chaparral. Dry rocky slopes, mostly near summits, but occasionally extending down
Monardella palmeri	Palmer's monardella	Dicots	None	None	G2	S2	1B.2	BLM_S-Sensitive | USFS_S-	Cismontane woodland, chaparral. On serpentine, often found associated with Sargent
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	Dicots	None	None	G3T2	S2	1B.2		Coastal dunes, coastal scrub, chaparral, cismontane woodland. Sandy soils. 20-305 m.
Monolopia gracilens	woodland woollythreads	Dicots	None	None	G3	S3	1B.2		Chaparral, valley and foothill grassland, cismontane woodland, broadleafed upland
Muhlenbergia utilis	aparejo grass	Monocots	None	None	G4	S2S3	2B.2		Meadows and seeps, marshes and swamps, chaparral, coastal scrub, cismontane woodland.
Navarretia nigelliformis ssp. radians	shining navarretia	Dicots	None	None	G4T2	S2	1B.2	BLM_S-Sensitive	Cismontane woodland, valley and foothill grassland, vernal pools. Apparently in grassland,
Nemacaulis denudata var. denudata	coast woolly-heads	Dicots	None	None	G3G4T2	S2	1B.2	SB_CalBG/RSABG-California/Ra	Coastal dunes. 0-5 m.
Neotoma lepida intermedia	San Diego desert woodrat	Mammals	None	None	G5T3T4	S3S4		CDFW_SSC-Species of Special	Coastal scrub of Southern California from San Diego County to San Luis Obispo
Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	Marsh	None	None	G3	S3.2			
Northern Interior Cypress Forest	Northern Interior Cypress Forest	Forest	None	None	G2	S2.2			

Nyctinomops macrotis	big free-tailed bat	Mammals	None	None	G5	S3		CDFW_SSC-Species of Special	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites.
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast	Fish	Threatened	None	G5T2Q	S2		AFS_TH-Threatened	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including,
Phrynosoma blainvillii	coast horned lizard	Reptiles	None	None	G3G4	S3S4		BLM_S-Sensitive | CDFW_SSC-	Frequents a wide variety of habitats, most common in lowlands along sandy washes
Plagiobothrys uncinatus	hooked popcornflower	Dicots	None	None	G2	S2	1B.2	USFS_S-Sensitive	Chaparral, cismontane woodland, valley and foothill grassland. Sandstone outcrops
Plebejus icarioides moroensis	Morro Bay blue butterfly	Insects	None	None	G5T2	S2			Inhabits stabilized dunes and adjacent areas of coastal San Luis Obispo and NW Santa
Poa diaboli	Diablo Canyon blue grass	Monocots	None	None	G2	S2	1B.2		Chaparral (mesic sites), cismontane woodland, coastal scrub, closed-cone coniferous
Polyphylla nubila	Atascadero June beetle	Insects	None	None	G1	S1			Known only from inland sand dunes in San Luis Obispo County.
Progne subis	purple martin	Birds	None	None	G5	S3		CDFW_SSC-Species of Special	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and
Pyrgulopsis taylori	San Luis Obispo pyrg	Mollusks	None	None	G1	S1			Freshwater habitats in San Luis Obispo County.
Rallus obsoletus obsoletus	California Ridgway's rail	Birds	Endangered	Endangered	G3T1	S1		CDFW_FP-Fully Protected |	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay.
Rana boylii	foothill yellow-legged frog	Amphibians	None	Endangered	G3	S3		BLM_S-Sensitive | CDFW_SSC-	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at
Rana draytonii	California red-legged frog	Amphibians	Threatened	None	G2G3	S2S3		CDFW_SSC-Species of Special	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or
Sanicula maritima	adobe sanicle	Dicots	None	Rare	G2	S2	1B.1	SB_SBBG-Santa Barbara	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie. Moist clay or

Scrophularia atrata	black-flowered figwort	Dicots	None	None	G2?	S2?	1B.2	SB_CalBG/RSABG-California/Ra	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub. Sand,
Senecio aphanactis	chaparral ragwort	Dicots	None	None	G3	S2	2B.2	SB_CalBG/RSABG-California/Ra	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-1020 m.
Serpentine Bunchgrass	Serpentine Bunchgrass	Herbaceous	None	None	G2	S2.2			
Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	Dicots	None	Rare	G3T1	S1	1B.2	SB_CalBG/RSABG-California/Ra	Closed-cone coniferous forest, chaparral Rocky serpentine soil; associated with Sargent cypress
Spea hammondii	western spadefoot	Amphibians	None	None	G2G3	S3		BLM_S-Sensitive | CDFW_SSC-	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Dicots	None	None	G2T2	S2	1B.2	SB_CalBG/RSABG-California/Ra	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops,
Suaeda californica	California seablite	Dicots	Endangered	None	G1	S1	1B.1		Marshes and swamps. Margins of coastal salt marshes. 0-5 m.
Sulcaria isidiifera	splitting yarn lichen	Lichens	None	None	G1	S1	1B.1		Coastal scrub. On branches of oaks and shrubs in old growth coastal scrub. 20-55 m.
Sulcaria spiralifera	twisted horsehair lichen	Lichens	None	None	G3G4	S2	1B.2	BLM_S-Sensitive	North Coast coniferous forest (immediate coast), coastal dunes. Usually on conifers. 0-90
Taricha torosa	Coast Range newt	Amphibians	None	None	G4	S4		CDFW_SSC-Species of Special	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial
Taxidea taxus	American badger	Mammals	None	None	G5	S3		CDFW_SSC-Species of Special	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable
Trifolium hydrophilum	saline clover	Dicots	None	None	G2	S2	1B.2		Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 1-
Tropidocarpum capparideum	caper-fruited tropidocarpum	Dicots	None	None	G1	S1	1B.1	SB_CalBG/RSABG-California/Ra	Valley and foothill grassland. Alkaline clay. 0-360 m.

Tryonia imitator	mimic tryonia (=California brackishwater	Mollusks	None	None	G2	S2		IUCN_DD-Data Deficient	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San
Valley Needlegrass Grassland	Valley Needlegrass Grassland	Herbaceous	None	None	G3	S3.1			

Appendix E, Table 2. Vehicular Bridge 3 Replacement Project - 9-quad search of CNPS Inventory of Rare and Endangered Plants of California centered on the Project quad (San Luis Obispo) and surrounding eight quadrangles (Atascadero, Morro Bay North, Morro Bay South, Port San Luis, Pismo Beach, Arroyo Grande NE, Lopez Mountain, and Santa Margarita).										
ScientificName	**CommonName**	**Lifeform**	**CRPR**	**GRank**	**SRank**	**CESA**	**FESA**	**Blooming Period**	**Habitat**	**MicroHabitat**
Arctostaphylos morroensis	Morro manzanita	perennial evergreen shrub	1B.1	G1	S1	None	FT	Dec-Mar	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub	
Arctostaphylos obispoensis	Bishop manzanita	perennial evergreen shrub	4.3	G3	S3	None	None	Feb-Jun	Chaparral, Cismontane woodland, Closed-cone coniferous forest	Rocky, Serpentinite
Arctostaphylos pechoensis	Pecho manzanita	perennial evergreen shrub	1B.2	G2	S2	None	None	Nov-Mar	Chaparral, Closed-cone coniferous forest, Coastal scrub	
Arctostaphylos pilosula	Santa Margarita manzanita	perennial evergreen shrub	1B.2	G2?	S2?	None	None	Dec-May	Broadleafed upland forest, Chaparral, Cismontane woodland, Closed-cone coniferous forest	Sandstone (sometimes)
Arctostaphylos rudis	sand mesa manzanita	perennial evergreen shrub	1B.2	G2	S2	None	None	Nov-Feb	Chaparral, Coastal scrub	Sandy

Calochortus obispoensis	San Luis mariposa-lily	perennial bulbiferous herb	1B.2	G2	S2	None	None	May-Jul	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Serpentinite (often)
Calochortus simulans	La Panza mariposa-lily	perennial bulbiferous herb	1B.3	G2	S2	None	None	Apr-Jun	Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland	Granitic (often), Sandy, Serpentinite (sometimes)
Agrostis hooveri	Hoover's bent grass	perennial herb	1B.2	G2	S2	None	None	Apr-Jul	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Valley and foothill grassland	Sandy (usually)
Arctostaphylos luciana	Santa Lucia manzanita	perennial evergreen shrub	1B.2	G2	S2	None	None	Dec-Mar	Chaparral, Cismontane woodland	Shale
Calochortus clavatus var. clavatus	club-haired mariposa lily	perennial bulbiferous herb	4.3	G4T3	S3	None	None	(Mar)May-Jun	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Clay, Rocky, Serpentinite (usually)

Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	perennial rhizomatous herb	4.2	G3T2?	S2?	None	None	(Mar)Apr-Jun(Jul)	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland	Clay (usually)
Dudleya abramsii ssp. murina	mouse-gray dudleya	perennial leaf	1B.3	G4T2	S2	None	None	May-Jun	Chaparral, Cismontane woodland, Valley and foothill grassland	
Dudleya abramsii ssp. bettinae	Betty's dudleya	perennial herb	1B.2	G4T2	S2	None	None	May-Jul	Chaparral, Coastal scrub, Valley and foothill grassland	
Clarkia speciosa ssp. immaculata	Pismo clarkia	annual herb	1B.1	G4T1	S1	CR	FE	May-Jul	Chaparral, Cismontane woodland, Valley and foothill grassland	Sandy
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	annual herb (hemiparasitic)	1B.2	G4?T1	S1	CE	FE	May-Oct(Nov)	Coastal dunes, Marshes and swamps	
Extriplex joaquinana	San Joaquin spearscale	annual herb	1B.2	G2	S2	None	None	Apr-Oct	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland	
Delphinium parryi ssp. blochmaniae	dune larkspur	perennial herb	1B.2	G4T2	S2	None	None	Apr-Jun	Chaparral, Coastal dunes	

Delphinium umbraculorum	umbrella larkspur	perennial herb	1B.3	G3	S3	None	None	Apr-Jun	Chaparral, Cismontane woodland	
Arenaria paludicola	marsh sandwort	perennial stoloniferous herb	1B.1	G1	S1	CE	FE	May-Aug	Marshes and swamps	Openings, Sandy
Camissoniopsis hardhamiae	Hardham's evening-primrose	annual herb	1B.2	G2	S2	None	None	Mar-May	Chaparral, Cismontane woodland	Burned areas (sometimes), Carbonate, Disturbed areas (sometimes), Sandy
Carex obispoensis	San Luis Obispo sedge	perennial cespitose herb	1B.2	G3?	S3?	None	None	Apr-Jun	Chaparral, Closed-cone coniferous forest, Coastal prairie, Coastal scrub, Valley and foothill grassland	
Cercocarpus betuloides var. blancheae	island mountain-mahogany	perennial evergreen shrub	4.3	G5T4	S4	None	None	Feb-May	Chaparral, Closed-cone coniferous forest	
Chorizanthe breweri	Brewer's spineflower	annual herb	1B.3	G3	S3	None	None	Apr-Aug	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Coastal scrub	Gravelly (sometimes), Rocky (sometimes), Serpentinite

Chorizanthe douglasii	Douglas' spineflower	annual herb	4.3	G4	S4	None	None	Apr-Jul	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland	Gravelly (sometimes), Sandy (sometimes)
Chorizanthe rectispina	straight-awned spineflower	annual herb	1B.3	G2	S2	None	None	Apr-Jul	Chaparral, Cismontane woodland, Coastal scrub	
Cirsium fontinale var. obispoense	Chorro Creek bog thistle	perennial herb	1B.2	G2T2	S2	CE	FE	Feb-Jul(Aug-Sep)	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Drainages, Seeps, Serpentinite
Cirsium rhothophilum	surf thistle	perennial herb	1B.2	G1	S1	CT	None	Apr-Jun	Coastal bluff scrub, Coastal dunes	
Dithyrea maritima	beach spectaclepod	perennial rhizomatous herb	1B.1	G1	S1	CT	None	Mar-May	Coastal dunes, Coastal scrub	
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	perennial herb	1B.1	G3T2	S2	None	None	Apr-Jun	Chaparral, Coastal bluff scrub, Coastal scrub, Valley and foothill grassland	
Eleocharis parvula	small spikerush	perennial herb	4.3	G5	S3	None	None	(Apr)Jun-Aug(Sep)	Marshes and swamps	

Eriastrum luteum	yellow-flowered eriastrum	annual herb	1B.2	G2	S2	None	None	May-Jun	Broadleafed upland forest, Chaparral, Cismontane woodland	
Erigeron blochmaniae	Blochman's leafy daisy	perennial rhizomatous herb	1B.2	G2	S2	None	None	Jun-Aug	Coastal dunes, Coastal scrub	
Erigeron sanctarum	saints' daisy	perennial rhizomatous herb	4.2	G3	S3	None	None	Mar-Jul	Chaparral, Cismontane woodland, Coastal scrub	
Eriodictyon altissimum	Indian Knob mountainbalm	perennial evergreen shrub	1B.1	G1	S1	CE	FE	Mar-Jun	Chaparral, Cismontane woodland, Coastal scrub	
Lessingia tenuis	spring lessingia	annual herb	4.3	G4	S4	None	None	May-Jul	Chaparral, Cismontane woodland, Lower montane coniferous forest	
Sanicula hoffmannii	Hoffmann's sanicle	perennial herb	4.3	G3	S3	None	None	Mar-May	Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Lower montane coniferous forest	

Sanicula maritima	adobe sanicle	perennial herb	1B.1	G2	S2	CR	None	Feb-May	Chaparral, Coastal prairie, Meadows and seeps, Valley and foothill grassland	
Eryngium aristulatum var. hooveri	Hoover's button-celery	annual/perennial herb	1B.1	G5T1	S1	None	None	(Jun)Jul(Aug)	Vernal pools	
Erysimum capitatum var. lompocense	San Luis Obispo wallflower	perennial herb	4.2	G5T3	S3	None	None	Feb-May	Chaparral, Coastal scrub	
Erysimum suffrutescens	suffrutescent wallflower	perennial herb	4.2	G3	S3	None	None	Jan-Jul(Aug)	Chaparral, Coastal bluff scrub, Coastal dunes, Coastal scrub	
Eschscholzia hypecoides	San Benito poppy	annual herb	4.3	G4	S4	None	None	Mar-Jun	Chaparral, Cismontane woodland, Valley and foothill grassland	
Fritillaria agrestis	stinkbells	perennial bulbiferous herb	4.2	G3	S3	None	None	Mar-Jun	Chaparral, Cismontane woodland, Pinyon and juniper woodland, Valley and foothill grassland	

Fritillaria ojaiensis	Ojai fritillary	perennial bulbiferous herb	1B.2	G3	S3	None	None	Feb-May	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest	
Fritillaria viridea	San Benito fritillary	perennial bulbiferous herb	1B.2	G2	S2	None	None	Mar-May	Chaparral, Cismontane woodland	
Galium cliftonsmithii	Santa Barbara bedstraw	perennial herb	4.3	G4	S4	None	None	May-Jul	Cismontane woodland	
Grindelia hirsutula var. maritima	San Francisco gumplant	perennial herb	3.2	G5T1Q	S1	None	None	Jun-Sep	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland	
Horkelia cuneata var. sericea	Kellogg's horkelia	perennial herb	1B.1	G4T1?	S1?	None	None	Apr-Sep	Chaparral, Closed-cone coniferous forest, Coastal dunes, Coastal scrub	
Juncus acutus ssp. leopoldii	southwestern spiny rush	perennial rhizomatous herb	4.2	G5T5	S4	None	None	(Mar)May-Jun	Coastal dunes, Marshes and swamps, Meadows and seeps	
Lasthenia leptalea	Salinas Valley goldfields	annual herb	4.3	G3	S3	None	None	Feb-Apr	Cismontane woodland, Valley and foothill grassland	

Layia jonesii	Jones' layia	annual herb	1B.2	G2	S2	None	None	Mar-May	Chaparral, Valley and foothill grassland	
Lomatium parvifolium	small-leaved lomatium	perennial herb	4.2	G3	S3	None	None	Jan-Jun	Chaparral, Closed-cone coniferous forest, Coastal scrub, Riparian woodland	
Lupinus ludovicianus	San Luis Obispo County lupine	perennial herb	1B.2	G1	S1	None	None	Apr-Jul	Chaparral, Cismontane woodland	
Malacothamnus gracilis	slender bush-mallow	perennial deciduous shrub	1B.1	G1Q	S1	None	None	May-Oct	Chaparral	
Malacothamnus jonesii	Jones' bush-mallow	perennial deciduous shrub	4.3	G4	S4	None	None	(Mar)Apr-Oct	Chaparral, Cismontane woodland	
Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	perennial deciduous shrub	1B.2	G3T2Q	S2	None	None	May-Jul	Chaparral	
Atriplex coulteri	Coulter's saltbush	perennial herb	1B.2	G3	S1S2	None	None	Mar-Oct	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland	Alkaline (sometimes), Clay (sometimes)
Monardella palmeri	Palmer's monardella	perennial rhizomatous herb	1B.2	G2	S2	None	None	Jun-Aug	Chaparral, Cismontane woodland	

Prunus fasciculata var. punctata	sand almond	perennial deciduous shrub	4.3	G5T4	S4	None	None	Mar-Apr	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub	
Tropidocarpum capparideum	caper-fruited tropidocarpum	annual herb	1B.1	G1	S1	None	None	Mar-Apr	Valley and foothill grassland	
Plagiobothrys uncinatus	hooked popcornflower	annual herb	1B.2	G2	S2	None	None	Apr-May	Chaparral, Cismontane woodland, Valley and foothill grassland	
Trifolium hydrophilum	saline clover	annual herb	1B.2	G2	S2	None	None	Apr-Jun	Marshes and swamps, Valley and foothill grassland, Vernal pools	
Lasthenia californica ssp. macrantha	perennial goldfields	perennial herb	1B.2	G3T2	S2	None	None	Jan-Nov	Coastal bluff scrub, Coastal dunes, Coastal scrub	
Perideridia pringlei	adobe yampah	perennial herb	4.3	G4	S4	None	None	Apr-Jun(Jul)	Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland	
Linanthus californicus ssp. tomentosus	fuzzy prickly-phlox	perennial deciduous shrub	4.2	G5T3	S3	None	None	Mar-Aug	Coastal dunes	

Piperia michaelii	Michael's rein orchid	perennial herb	4.2	G3	S3	None	None	Apr-Aug	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal scrub, Lower montane coniferous forest	
Ribes sericeum	Santa Lucia gooseberry	perennial deciduous shrub	4.3	G4	S4	None	None	Feb-Apr	Broadleafed upland forest, Cismontane woodland, Coastal bluff scrub, North Coast coniferous forest	
Scrophularia atrata	black-flowered figwort	perennial herb	1B.2	G2?	S2?	None	None	Mar-Jul	Chaparral, Closed-cone coniferous forest, Coastal dunes, Coastal scrub, Riparian scrub	
Sidalcea hickmanii ssp. anomala	Cuesta Pass checkerbloom	perennial herb	1B.2	G3T1	S1	CR	None	May-Jun	Chaparral, Closed-cone coniferous forest	

Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	annual herb	1B.2	G2T2	S2	None	None	(Mar)Apr-Sep(Oct)	Chaparral, Cismontane woodland, Valley and foothill grassland	
Suaeda californica	California seablite	perennial evergreen shrub	1B.1	G1	S1	None	FE	Jul-Oct	Marshes and swamps	
Abronia maritima	red sand-verbena	perennial herb	4.2	G4	S3?	None	None	Feb-Nov	Coastal dunes	
Arctostaphylos osoensis	Oso manzanita	perennial evergreen shrub	1B.2	G1	S1	None	None	Feb-Mar	Chaparral, Cismontane woodland	
Arctostaphylos tomentosa ssp. daciticola	dacite manzanita	perennial evergreen shrub	1B.1	G4T1	S1	None	None	Mar-May	Chaparral, Cismontane woodland	
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	perennial rhizomatous herb	4.2	G3	S3	None	None	Jan-Dec	Chaparral, Cismontane woodland	Serpentinite (usually)
Carex comosa	bristly sedge	perennial rhizomatous herb	2B.1	G5	S2	None	None	May-Sep	Coastal prairie, Marshes and swamps, Valley and foothill grassland	
Chlorogalum pomeridianum var. minus	dwarf soaproot	perennial bulbiferous herb	1B.2	G5T3	S3	None	None	May-Aug	Chaparral	
Chorizanthe leptotheca	Peninsular spineflower	annual herb	4.2	G3	S3	None	None	May-Aug	Chaparral, Coastal scrub, Lower montane coniferous forest	Granitic

Chorizanthe palmeri	Palmer's spineflower	annual herb	4.2	G4	S4	None	None	Apr-Aug	Chaparral, Cismontane woodland, Valley and foothill grassland	Rocky, Serpentinite
Centromadia parryi ssp. congdonii	Congdon's tarplant	annual herb	1B.1	G3T1T2	S1S2	None	None	May-Oct(Nov)	Valley and foothill grassland	
Hordeum intercedens	vernal barley	annual herb	3.2	G3G4	S3S4	None	None	Mar-Jun	Coastal dunes, Coastal scrub, Valley and foothill grassland, Vernal pools	
Horkelia yadonii	Santa Lucia horkelia	perennial rhizomatous herb	4.2	G3	S3	None	None	Apr-Jul	Broadleafed upland forest, Chaparral, Cismontane woodland, Meadows and seeps, Riparian woodland	
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	annual herb	1B.1	G4T2	S2	None	None	Feb-Jun	Marshes and swamps, Playas, Vernal pools	

Leptosiphon grandiflorus	large-flowered leptosiphon	annual herb	4.2	G3G4	S3S4	None	None	Apr-Aug	Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Valley and foothill grassland	
Mucronea californica	California spineflower	annual herb	4.2	G3	S3	None	None	Mar-Jul(Aug)	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland	
Navarretia nigelliformis ssp. radians	shining navarretia	annual herb	1B.2	G4T2	S2	None	None	(Mar)Apr-Jul	Cismontane woodland, Valley and foothill grassland, Vernal pools	
Nemacaulis denudata var. denudata	coast woolly-heads	annual herb	1B.2	G3G4T2	S2	None	None	Apr-Sep	Coastal dunes	
Senecio aphanactis	chaparral ragwort	annual herb	2B.2	G3	S2	None	None	Jan-Apr(May)	Chaparral, Cismontane woodland, Coastal scrub	

Calandrinia breweri	Brewer's calandrinia	annual herb	4.2	G4	S4	None	None	(Jan)Mar-Jun	Chaparral, Coastal scrub	Burned areas, Disturbed areas, Loam (sometimes), Sandy (sometimes)
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	annual herb	1B.2	G5T2	S2	None	None	Mar-Jun	Coastal scrub	
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	perennial herb	4.2	G4T4	S4	None	None	Jan-Nov	Coastal bluff scrub, Coastal dunes	
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	annual herb (hemiparasitic)	1B.2	G5T2	S2	None	None	Mar-May	Meadows and seeps, Valley and foothill grassland	Serpentinite (sometimes)
Ceanothus cuneatus var. fascicularis	Lompoc ceanothus	perennial evergreen shrub	4.2	G5T4	S4	None	None	Feb-Apr	Chaparral	
Chorizanthe ventricosa	potbellied spineflower	annual herb	4.3	G3	S3	None	None	May-Sep	Cismontane woodland, Valley and foothill grassland	Serpentinite
Deinandra paniculata	paniculate tarplant	annual herb	4.2	G4	S4	None	None	(Mar)Apr-Nov	Coastal scrub, Valley and foothill grassland, Vernal pools	
Gilia tenuiflora ssp. amplifaucalis	trumpet-throated gilia	annual herb	4.3	G3G4T3	S3	None	None	Mar-Apr	Cismontane woodland, Valley and foothill grassland	

Horkelia cuneata var. puberula	mesa horkelia	perennial herb	1B.1	G4T1	S1	None	None	Feb-Jul(Sep)	Chaparral, Cismontane woodland, Coastal scrub	
Senecio blochmaniae	Blochman's ragwort	perennial herb	4.2	G3	S3	None	None	May-Oct	Coastal dunes	
Mielichhoferia elongata	elongate copper moss	moss	4.3	G5	S3S4	None	None		Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Meadows and seeps, Subalpine coniferous forest	
Poa diaboli	Diablo Canyon blue grass	perennial rhizomatous herb	1B.2	G2	S2	None	None	Mar-Apr	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Coastal scrub	
Eriogonum elegans	elegant wild buckwheat	annual herb	4.3	G4G5	S4S5	None	None	May-Nov	Cismontane woodland, Valley and foothill grassland	
Ceanothus impressus var. nipomensis	Nipomo Mesa ceanothus	perennial shrub	1B.2	G3T2	S2	None	None	Feb-Apr	Chaparral	Sandy

Senecio astephanus	San Gabriel ragwort	perennial herb	4.3	G3	S3	None	None	May-Jul	Chaparral, Coastal bluff scrub	
Clinopodium mimuloides	monkey-flower savory	perennial herb	4.2	G3	S3	None	None	Jun-Oct	Chaparral, North Coast coniferous forest	Mesic, Streambanks
Monolopia gracilens	woodland woollythreads	annual herb	1B.2	G3	S3	None	None	(Feb)Mar-Jul	Broadleafed upland forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland	
Chenopodium littoreum	coastal goosefoot	annual herb	1B.2	G1	S1	None	None	Apr-Aug	Coastal dunes	
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	perennial herb	1B.2	G3G4T2	S2	None	None	Apr-Jun	Chaparral	Disturbed areas, Roadsides, Rocky (often), Serpentinite, Slopes (often)
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	perennial herb	1B.2	G4T2	S2	None	None	(Feb)Mar-Apr	Chaparral, Valley and foothill grassland	
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	annual herb	1B.2	G3T2	S2	None	None	Apr-Sep	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub	

Sulcaria spiralifera	twisted horsehair lichen	fruticose lichen (epiphytic)	1B.2	G3G4	S2	None	None		Coastal dunes, North Coast coniferous forest	
Cladonia firma	popcorn lichen	squamulose lichen (terricolous)	2B.1	G4	S1	None	None		Coastal dunes, Coastal scrub	
Sulcaria isidiifera	splitting yarn lichen	fruticose lichen (epiphytic)	1B.1	G1	S1	None	None		Coastal scrub	
Chorizanthe aphanantha	Irish Hills spineflower	annual herb	1B.1	G1	S1	None	None	Apr-Jun	Chaparral, Coastal scrub	Gravelly, Rocky, Serpentinite
Ceanothus thyrsiflorus var. obispoensis	San Luis Obispo ceanothus	perennial shrub	1B.1	G5T1	S1	None	None	Jun	Chaparral, Cismontane woodland	Dacite
Muhlenbergia utilis	aparejo grass	perennial rhizomatous herb	2B.2	G4	S2S3	None	None	Mar-Oct	Chaparral, Cismontane woodland, Coastal scrub, Marshes and swamps, Meadows and seeps	Alkaline (sometimes), Serpentinite (sometimes)

Appendix E, Table 3. Vehicular Bridge 3 Replacement Project - 9-quad search of NOAA Fisheries West Coast Region California Species List Tool centered on the Project quad (San Luis Obispo) and surrounding eight quadrangles (Atascadero, Morro Bay North, Morro Bay South, Port San Luis, Pismo Beach, Arroyo Grande NE, Lopez Mountain, and Santa Margarita

Quad Name **San Luis Obispo**
Quad Number **35120-C6**

1. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

2. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

3. ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

4. **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

5. **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

6. **ESA Whales**

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

7. **ESA Pinnipeds**

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

8. **Essential Fish Habitat**

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

9. **MMPA Species (See list at left)**
10. **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Atascadero**
Quad Number **35120-D6**

11. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

12. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

13. ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

14. ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

15. **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

16. **ESA Whales**

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

17. **ESA Pinnipeds**

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

18. **Essential Fish Habitat**

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

19. **MMPA Species (See list at left)**
20. **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Morro Bay North**
Quad Number **35120-D7**

21. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

22. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

23. ESA Marine Invertebrates

Range Black Abalone (E) - **X**
Range White Abalone (E) -

24. ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

25. ESA Sea Turtles

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

26. ESA Whales

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - X
Sei Whale (E) - X
Sperm Whale (E) - X

27. ESA Pinnipeds

Guadalupe Fur Seal (T) - X
Steller Sea Lion Critical Habitat -

28. Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH - X

29. MMPA Species (See list at left)

30. ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

Quad Name **Morro Bay South**
Quad Number **35120-C7**

31. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

32. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

33. ESA Marine Invertebrates

Range Black Abalone (E) - **X**
Range White Abalone (E) -

34. ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

35. **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

36. **ESA Whales**

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - X
Sei Whale (E) - X
Sperm Whale (E) - X

37. **ESA Pinnipeds**

Guadalupe Fur Seal (T) - X
Steller Sea Lion Critical Habitat -

38. **Essential Fish Habitat**

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH - X

39. **MMPA Species (See list at left)**
40. **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

Quad Name **Port San Luis**
Quad Number **35120-B7**

41. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

42. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

43. ESA Marine Invertebrates

Range Black Abalone (E) - **X**
Range White Abalone (E) -

44. ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat - X

45. ESA Sea Turtles

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

46. ESA Whales

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - X
Sei Whale (E) - X
Sperm Whale (E) - X

47. ESA Pinnipeds

Guadalupe Fur Seal (T) - X
Steller Sea Lion Critical Habitat -

48. Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH - X

49. MMPA Species (See list at left)

50. ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

Quad Name **Pismo Beach**
Quad Number **35120-B6**

51. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

52. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

53. ESA Marine Invertebrates

Range Black Abalone (E) - **X**
Range White Abalone (E) -

54. ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat - X

55. **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

56. **ESA Whales**

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - X
Sei Whale (E) - X
Sperm Whale (E) - X

57. **ESA Pinnipeds**

Guadalupe Fur Seal (T) - X
Steller Sea Lion Critical Habitat -

58. **Essential Fish Habitat**

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH - X

59. **MMPA Species (See list at left)**
60. **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

Quad Name **Arroyo Grande NE**
Quad Number **35120-B5**

61. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

62. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

63. ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

64. ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

65. **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

66. **ESA Whales**

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

67. **ESA Pinnipeds**

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

68. **Essential Fish Habitat**

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

69. **MMPA Species (See list at left)**
70. **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Lopez Mountain**
Quad Number **35120-C5**

71. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

72. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

73. ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

74. ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

75. **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

76. **ESA Whales**

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

77. **ESA Pinnipeds**

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

78. **Essential Fish Habitat**

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

79. **MMPA Species (See list at left)**
80. **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Santa Margarita**
Quad Number **35120-D5**

81. ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) - **X**
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

82. ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat - **X**
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

83. ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

84. ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

85. **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

86. **ESA Whales**

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

87. **ESA Pinnipeds**

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

88. **Essential Fish Habitat**

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

89. **MMPA Species (See list at left)**
90. **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Appendix F

Essential Fish Habitat Mapper Report

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

West Coast Regional Office
Alaska Regional Office

Query Results

Degrees, Minutes, Seconds: Latitude = 35º 19' 31" N, Longitude = 121º 15' 58" W
Decimal Degrees: Latitude = 35.325, Longitude = -120.734

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

EFH

No Essential Fish Habitats (EFH) were identified at the report location.

Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data. ****For links to all EFH text descriptions see the complete data inventory: open data inventory -->**
Pacific Coastal Pelagic Species, Jack Mackerel, Pacific (Chub) Mackerel, Pacific Sardine, Northern Anchovy - Central Subpopulation, Northern Anchovy - Northern Subpopulation, **Pacific Highly Migratory Species**, Bigeye Thresher Shark - North Pacific, Bluefin Tuna - Pacific, Dolphinfish (Dorado or Mahimahi) - Pacific, Pelagic Thresher Shark - North Pacific, Swordfish - North Pacific

Appendix E

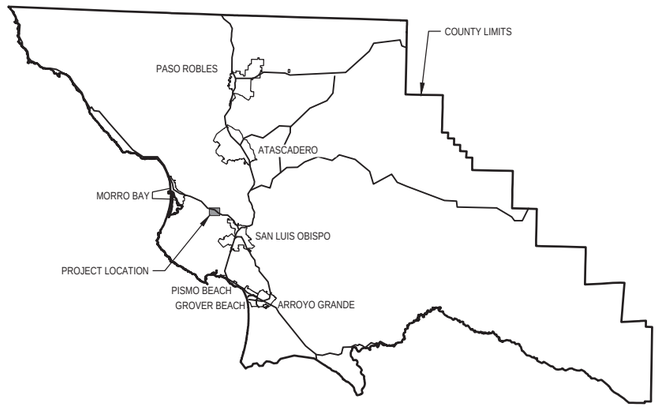
65% Plans

STATE OF CALIFORNIA
CALIFORNIA MILITARY DEPARTMENT
CAMP SAN LUIS OBISPO
PLANS FOR THE REPLACEMENT OF BRIDGE NUMBER 3

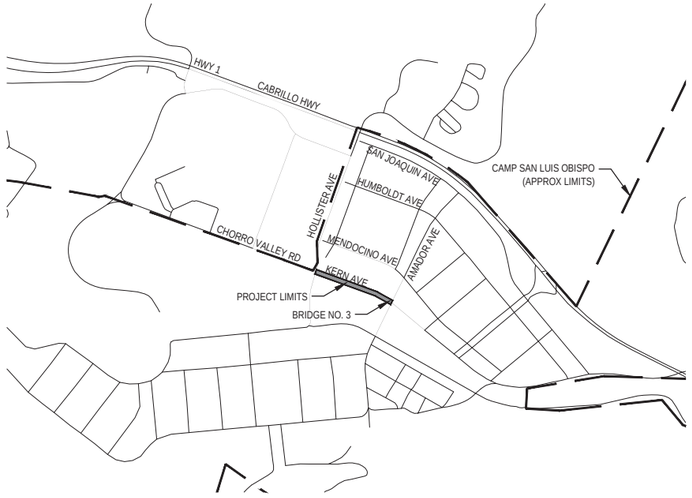
65% PLANS

JULY 2022

PROJECT NUMBER: 12562944



AREA MAP



LOCATION MAP

PRELIMINARY

NOT FOR CONSTRUCTION

SHEET INDEX

SHEET INDEX		
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S-301	20	SECTIONS
S-501	21	PRECAST I GIRDER DETAILS
S-502	22	CONCRETE BARRIER AND ELECTROLIER PEDESTAL DETAILS

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No.	Issue	Checked	Approved	Date

Author MP | Drafting Check KK | Project Manager MW

Designer MP | Design Check KK | Project Director TP

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Client CALIFORNIA MILITARY DEPARTMENT

Project CAMP SLO BRIDGE 3 REPLACEMENT

Title TITLE SHEET

Size ANSI D

Project No. 12562944 | Date 7-29-2022 | Scale NO SCALE

Sheet No. T-101

Plot Date: 29 July 2022 - 2:22 PM | Plotted By: Michael Pitcock | Filename: N:\US\Roseville\Projects\561\12562944\Digital_Design\GNIC3D\Sheets\12562944-GHD-00-00-TTB-GN-D001.dwg

GENERAL SHEET NOTES

1. THIS IS A STANDARD ABBREVIATION AND LEGEND SHEET. THEREFORE, SOME ABBREVIATIONS AND LEGEND SYMBOLS MAY APPEAR ON THIS SHEET AND MAY NOT BE UTILIZED ON THIS PROJECT
2. DO NOT SCALE DRAWINGS.
3. THE CONTRACTOR SHALL INSPECT THE PROJECT SITE PRIOR TO SUBMITTING A BID IN ORDER TO OBSERVE AND DETERMINE THE EXISTING JOBSITE CONDITIONS.
4. THE CONTRACTOR SHALL HOLD HARMLESS THE CALIFORNIA MILITARY DEPARTMENT AND THEIR AUTHORIZED REPRESENTATIVES FROM ALL LIABILITIES AND DAMAGES RESULTING FROM CONTRACTOR'S CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR SHALL BE REQUIRED TO ASSUME COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THESE PLANS DO NOT INCLUDE COMPONENTS NECESSARY FOR CONSTRUCTION SAFETY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FOR THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF THE PROJECT.
6. THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE CAL/OSHA CONSTRUCTION SAFETY ORDERS AND US ARMY CORPS OF ENGINEERS MANUAL NUMBER EM 385-1. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES INCLUDING ALL OVERHEAD AND BURIED UTILITIES WITHIN THE WORK AREA PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL PROCEED WITH CAUTION DURING UNDERGROUND OPERATIONS AND SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL UTILITIES DAMAGED DURING CONSTRUCTION AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT NORTH (U.S.A) AT 811 OR ONLINE AT WWW.USANORTH811.ORG A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION.
8. EVERY EFFORT HAS BEEN MADE TO SHOW THE LOCATION OF EXISTING UTILITIES AND OBSTRUCTIONS WHICH MAY INTERFERE WITH THE WORK. CONTRACTOR SHALL NOTIFY THE CALIFORNIA MILITARY DEPARTMENT PRIOR TO STARTING ANY WORK WHICH MAY AFFECT THEIR FACILITIES & IS FULLY RESPONSIBLE FOR ANY POTHOLING REQUIREMENTS. POTHOLING SHALL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF WORK FOR WHICH THE POTHOLING IS PERFORMED.
9. TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ALL TRAFFIC CONTROL AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE SITE OR THE SURROUNDING AREA AS A RESULT OF THE CONTRACTOR'S WORK OR OPERATIONS. EXISTING FACILITIES THAT ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
11. ALL EXISTING FACILITIES, STRUCTURES, TREES, FENCES, LANDSCAPING, ETC. ARE TO REMAIN. ONLY THOSE SPECIFICALLY DESIGNATED FOR REMOVAL AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER, SHALL BE REMOVED.
12. IF, DURING THE COURSE OF THE WORK, THE CONTRACTOR ENCOUNTERS ANY SURFACE OR SUBSURFACE MATERIALS THAT HE/SHE BELIEVES ARE HAZARDOUS (AS DEFINED IN SECTION 25117 OF THE HEALTH AND SAFETY CODE), THE CONTRACTOR MUST INFORM THE ENGINEER IN WRITING IMMEDIATELY. MATERIAL IS TO REMAIN UNDISTURBED UNTIL AN INVESTIGATION BY THE CALIFORNIA MILITARY DEPARTMENT OR ITS REPRESENTATIVE. REMOVAL AND/OR DISPOSAL OF HAZARDOUS MATERIAL IS NOT PART OF THE SCOPE OF WORK.
13. THE CONTRACTOR SHALL CONTACT THE CALIFORNIA MILITARY DEPARTMENT 48 HOURS PRIOR TO GRINDING, PAVING AND GRADING. WHERE APPLICABLE, SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
14. ALL DIMENSIONS ARE US SURVEY FEET UNLESS OTHERWISE NOTED.
15. THESE PLANS ARE TO BE SUPPLEMENTED BY THE 2018 CALTRANS STANDARD PLANS AND THE CALTRANS REVISED STANDARD PLANS DATED APRIL 2022.

LEGEND

- HOT MIX ASPHALT SURFACING
- HOT MIX ASPHALT (GRIND AND OVERLAY)
- PORTLAND CEMENT CONCRETE
- BRIDGE (SEE STRUCTURE PLANS)
- APPROACH SLAB (SEE STRUCTURE PLANS)

SYMBOLS

EXISTING

- SANITARY SEWER MANHOLE
- WATER VALVE
- SIGN
- TREE
- UTILITY POLE
- GUY WIRE
- BUILDING
- GAS RISER
- X — FENCE
- SS — SANITARY SEWER
- W — WATER
- G — NATURAL GAS

ABBREVIATIONS

AC	ASPHALT CONCRETE
AP	ANGLE POINT
BC	BEGIN HORIZONTAL CURVE
BEG	BEGIN
BOC	BACK OF CURB
BOW	BACK OF WALK
BVC	BEGIN VERTICAL CURVE
CB	CONCRETE BARRIER
CMD	CALIFORNIA MILITARY DEPARTMENT
CONC	CONCRETE
EC	END HORIZONTAL CURVE
E/W	EACH WAY
EVC	END VERTICAL CURVE
EXIST	EXISTING
FL	FLOW LINE
FOC	BOTTOM FACE OF CURB
LF	LINEAR FEET
MGS	MIDWEST GUARDRAIL SYSTEM
O/C	ON CENTER
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
SW	SIDEWALK
TL-2	TEST LEVEL 2
TOC	TOP FACE OF CURB

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No.	Issue	Checked	Approved	Date

Author	MP	Drafting Check	KK	Project Manager	MW
Designer	MP	Design Check	KK	Project Director	TP

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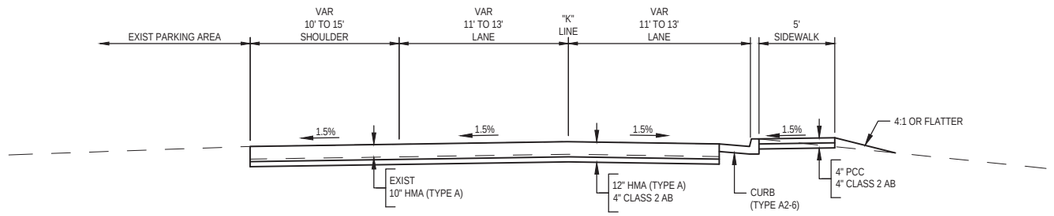
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Project: CAMP SLO BRIDGE 3 REPLACEMENT
Title: GENERAL NOTES AND ABBREVIATIONS
Size: ANSI D

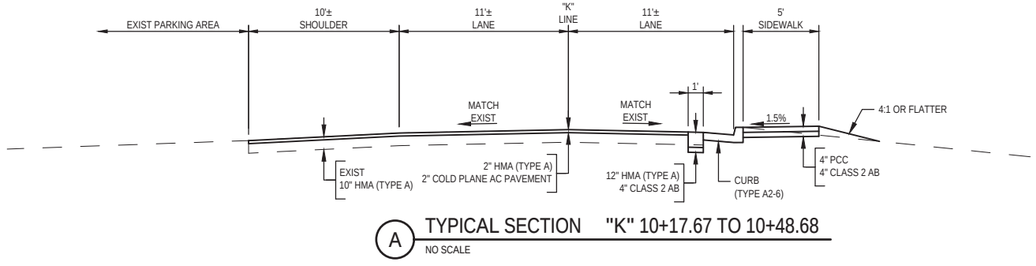
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12562944	7-29-2022	NO SCALE	G-001

Plot Date: 29 July 2022 - 2:10 PM
Plotted By: Michael Pitcock
Filename: N:\US\Roseville\Projects\561\12562944\Digital_Design\GN\C3D\Sheets\12562944-GHD-00-00-TTB-GN-D001.dwg



B TYPICAL SECTION "K" 10+48.68 TO 10+91.89

NO SCALE



A TYPICAL SECTION "K" 10+17.67 TO 10+48.68

NO SCALE

KERN AVE

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Project CAMP SLO BRIDGE 3 REPLACEMENT

Title TYPICAL CROSS SECTIONS

Size ANSI D

Project No.	Date	Scale
12562944	7-29-2022	NO SCALE

Sheet No. C-101

Plot Date: 29 July 2022 - 8:22 AM Plotted By: Michael Pitcock Filename: N:\US\Roseville\Projects\561\12562944\Digital_Design\C\C3D\Sheets\12562944-GHD-00-00-RWY-CI-D101.dwg

SURVEY CONTROL DATA

No.	NORTHING	EASTING	ELEVATION	DESCRIPTION
101	2316009.069	5745446.944	255.602	CUT "X" ON TOP OF CURB
102	2315787.079	5746139.604	253.450	MAG NAIL AND WASHER
103	2316074.854	5746408.770	257.821	CUT "X" ON CONCRETE
104	2315663.090	5746338.349	254.319	MAG NAIL AND WASHER
105	2315583.704	5745545.692	247.216	60D
106	2315583.811	5745894.557	249.072	60D
107	2316036.853	5745326.744	254.326	CUT "X" ON TOP OF CURB
108	2315529.658	5745246.098	247.129	CUT "X" ON CONCRETE
109	2315926.082	5746341.139	254.456	60D
111	2315595.338	5746054.208	249.937	60D
112	2315613.222	5745190.237	249.272	60D

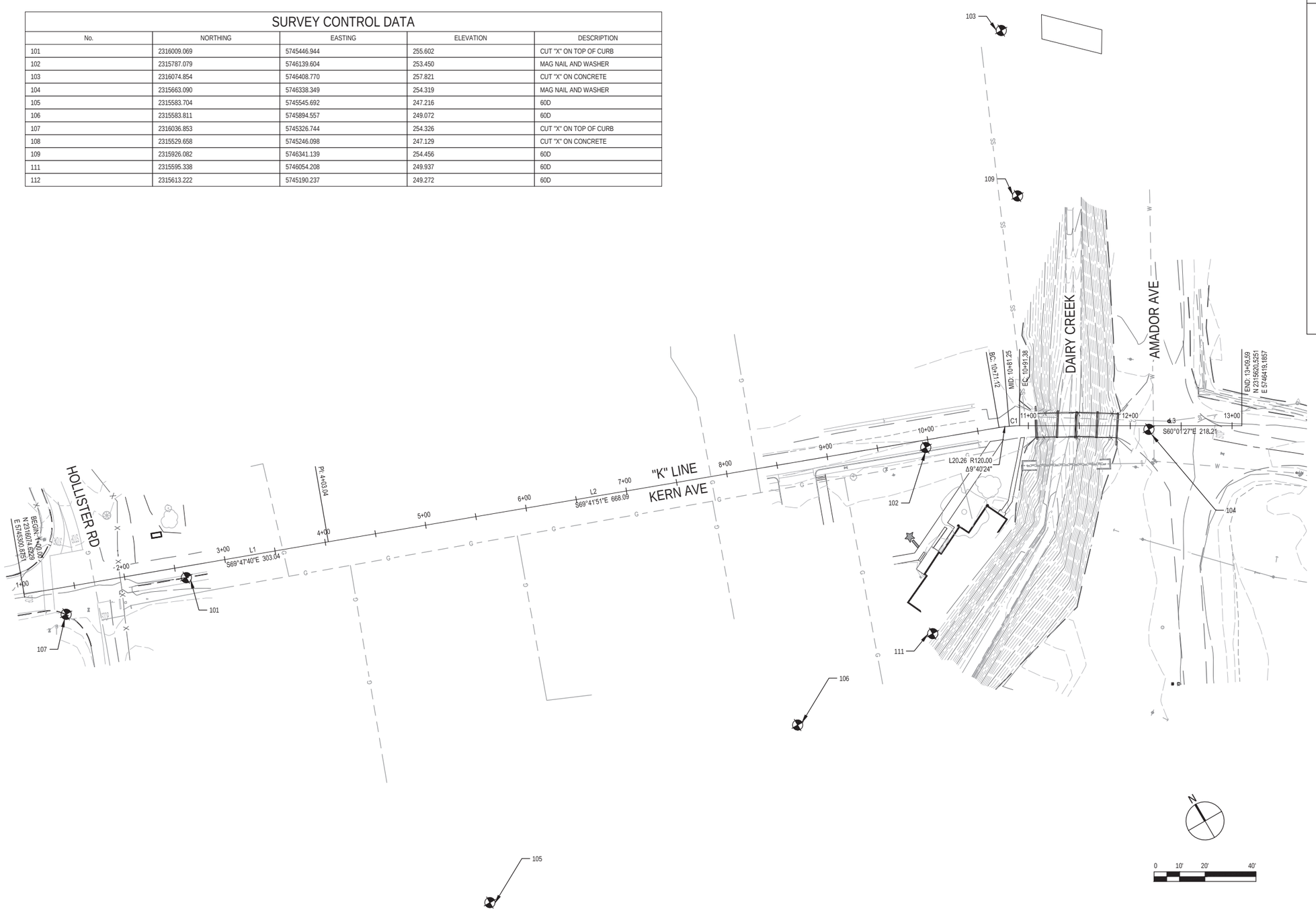
SHEET GENERAL NOTES

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE V, NAD 83.

BASIS OF ELEVATIONS

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988, AS DERIVED FROM GEOID12B.



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Designer	BH	Design Check	KK	Project Director MW

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Client CALIFORNIA MILITARY DEPARTMENT

Project CAMP SLO BRIDGE 3 REPLACEMENT

Title PROJECT CONTROL

Size ANSI D

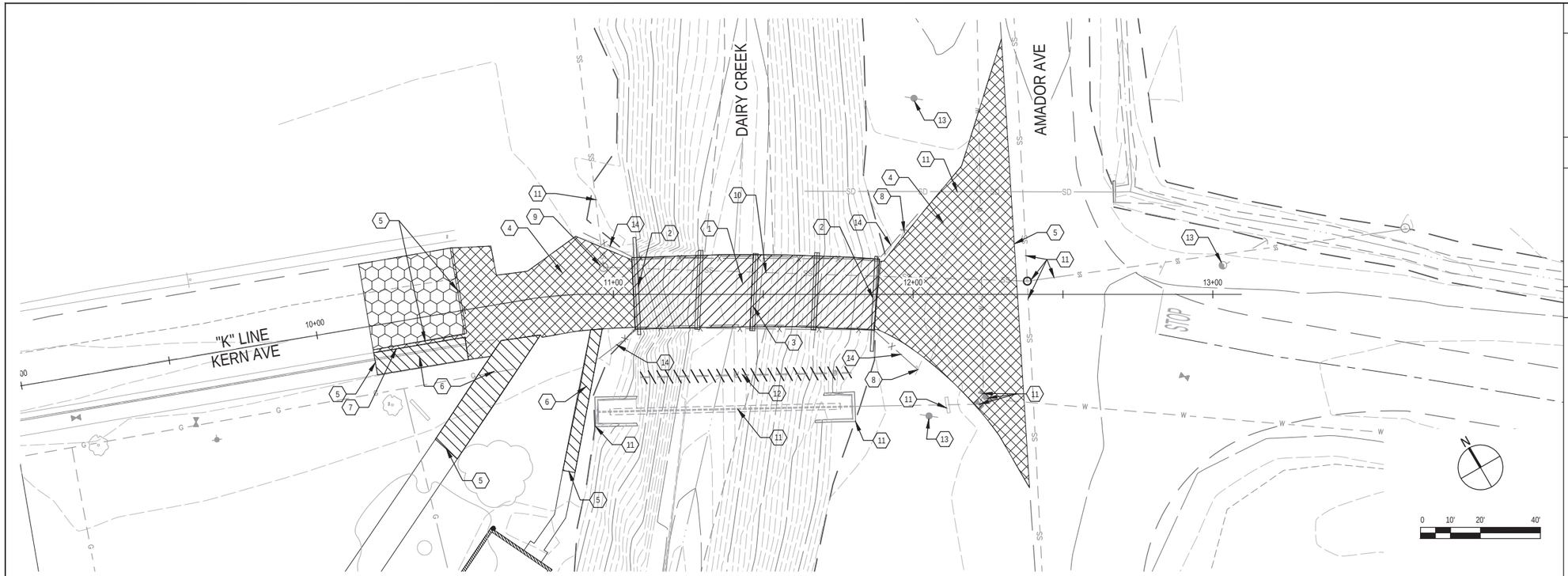
Project No. 12562944

Date 7-29-2022

Scale 1" = 20'

Sheet No. C-102

Plot Date: 29 July 2022 - 8:22 AM
Plotted By: Michael Pitcock
Filename: N:\US\Roseville\Projects\561\12562944\Digital_Design\C\C3D\Sheets\12562944-GHD-00-00-RWY-CI-D101.dwg



SHEET GENERAL NOTES

1. NO CONSTRUCTION EQUIPMENT IS PERMITTED WITHIN THE CREEK.
2. ALL DEMOLITION TO BE DISPOSED OF OFF SITE. CREOSOTE TREATED TIMBER PILING TO BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAW.
3. EXISTING K-RAIL SHALL BE REMOVED AND SALVAGED TO CALIFORNIA MILITARY DEPARTMENT.

LEGEND

- DECONSTRUCT BRIDGE STRUCTURES
- REMOVE HMA PAVEMENT
- REMOVE CONCRETE SIDEWALK, CURB AND GUTTER
- COLD PLANE ASPHALT CONCRETE PAVEMENT

KEYNOTES

1. DECONSTRUCT AND REMOVE BRIDGE STRUCTURES
2. REMOVE BRIDGE ABUTMENTS
3. CUT TIMBER PILES AT MUD LINE AND REMOVE (TYP.)
4. REMOVE HMA PAVEMENT SECTION
5. SAWCUT LIMITS
6. REMOVE CONCRETE SIDEWALK
7. REMOVE CONCRETE CURB AND GUTTER
8. REMOVE SIGN POST AND FOUNDATION
9. EXISTING MANHOLE AND 5 LF OF EXISTING SANITARY SEWER TO BE REMOVED.
10. REMOVE EXISTING SEWER MAIN FROM MANHOLE TO MANHOLE. SEWER BYPASS TO BE INCORPORATED UNTIL NEW SEWER MAIN IS OPERATIONAL.
11. PROTECT IN PLACE
12. REMOVE EXISTING UTILITY AND RAIL TIE. CAP BOTH ENDS.
13. OVERHEAD UTILITIES AND POLES TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION (BY OTHERS)
14. REMOVE WOODEN GUARDRAIL

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Designer MP | Design Check KK | Project Director MW

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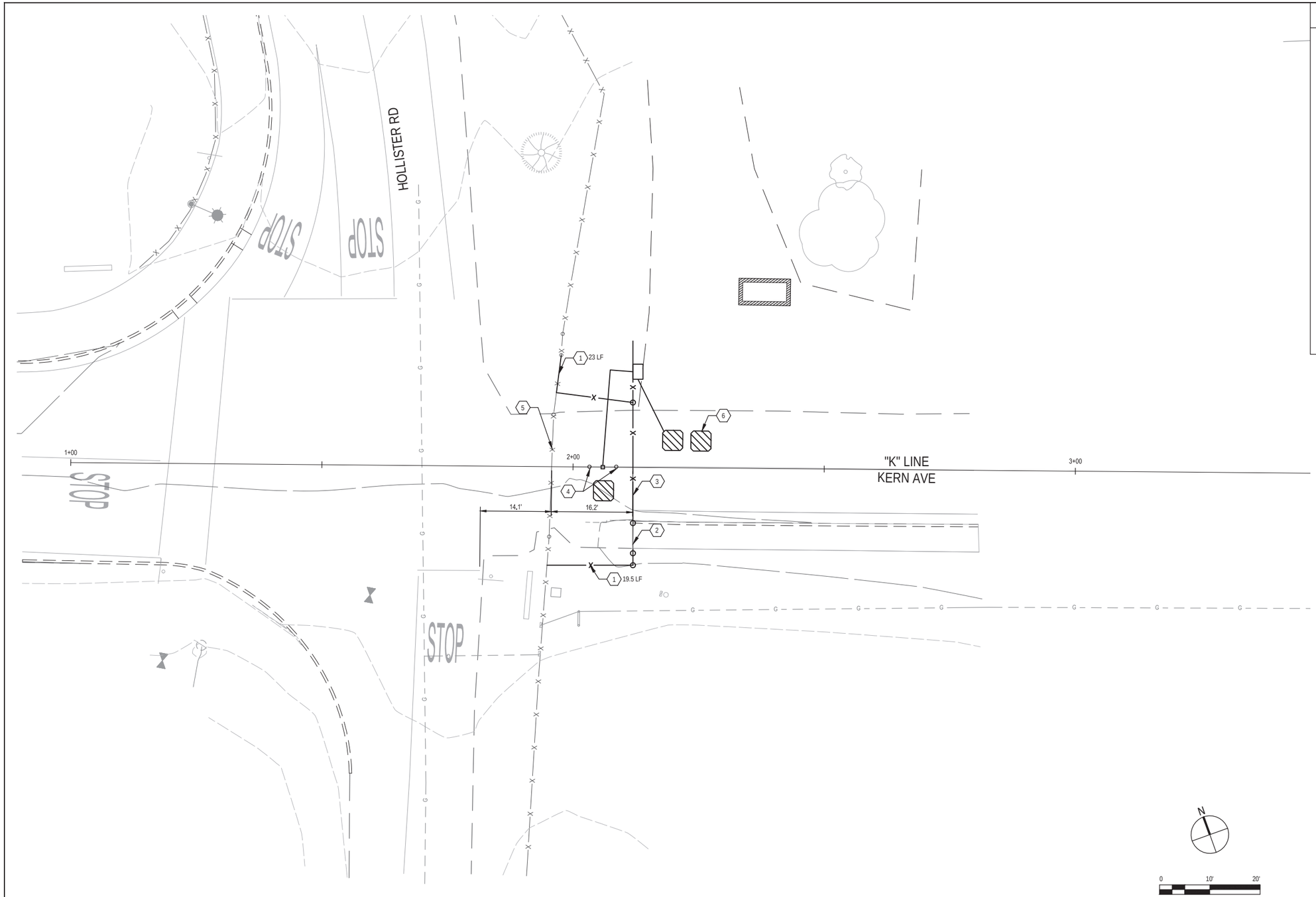
Client CALIFORNIA MILITARY DEPARTMENT
Project CAMP SLO BRIDGE 3 REPLACEMENT
Title DEMOLITION PLAN
Size ANSI D

Project No. 12562944 | Date 7-29-2022 | Scale 1" = 20'
Sheet No. C-103

Plot Date: 29 July 2022 - 8:22 AM | Plotted By: Michael Pitcock | Filename: N:\US\Roseville\Projects\56\12562944\Digital_Design\C\C3D\Sheets\12562944-GHD-00-00-RWY-CI-D101.dwg

SHEET KEYNOTES

1. CONSTRUCT CHAIN LINK FENCE PER UFC 4-022-01 APPENDIX C, DRAWINGS NUMBERS: UFC-700, UFC-701 AND UFC-702.
2. CONSTRUCT 6 FOOT WIDE SINGLE SWING GATE PER UFC-702.
3. CONSTRUCT SLIDING GATE PER ELECTRICAL PLAN.
4. CONSTRUCT 2 CONCRETE FILLED BOLLARDS PER UFC-705.
5. REMOVE EXISTING FENCE AND GATE.
6. DETECTOR LOOPS (SEE ELECTRICAL PLAN).



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Project CAMP SLO BRIDGE 3 REPLACEMENT

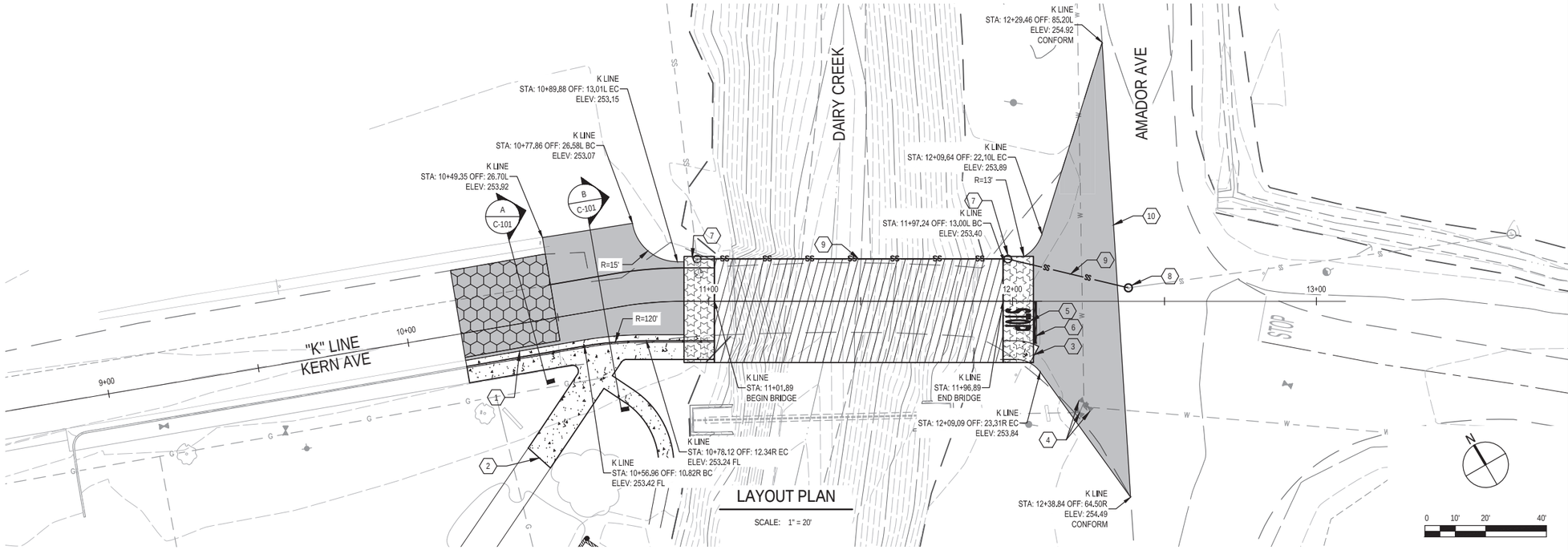
Title GATE PLAN

Size ANSI D

Project No.	Date	Scale
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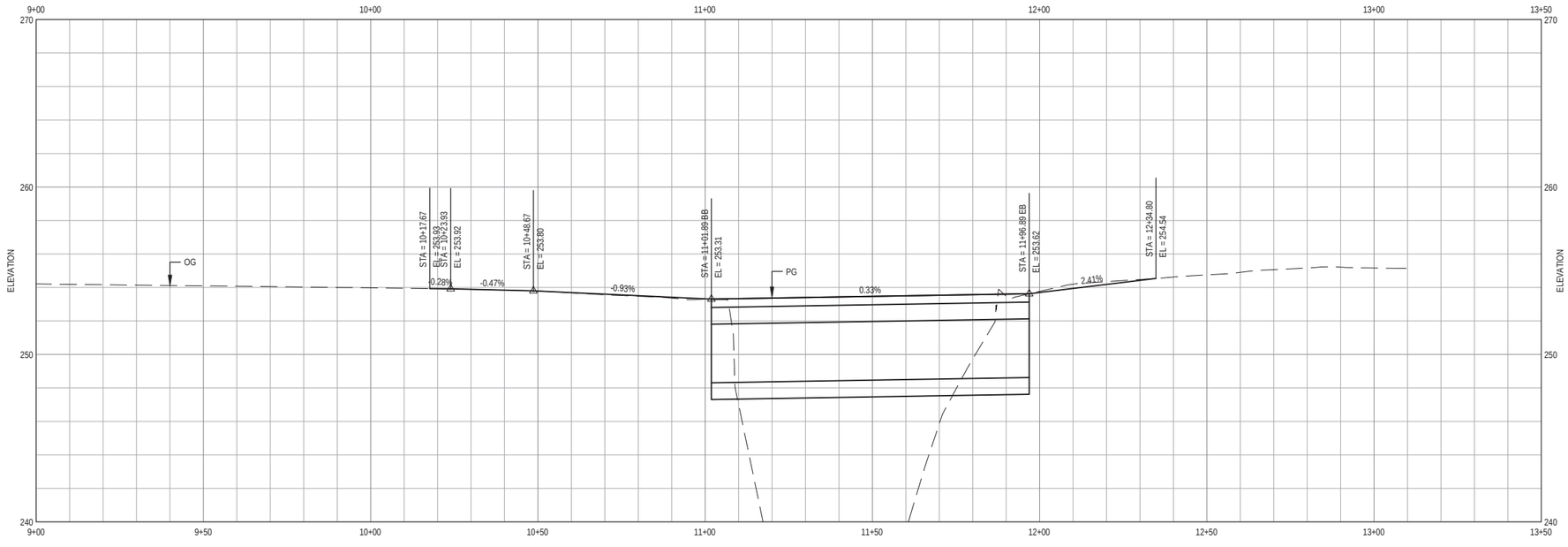
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LAYOUT PLAN

SCALE: 1" = 20'



PROFILE "K" LINE

SCALE: HORIZ 1" = 20'
VERT 1" = 4'

SHEET GENERAL NOTES

1. FOR LEGEND AND ABBREVIATIONS, SEE SHEET G-001.
2. ELEVATIONS ARE TO THE EDGE OF PAVEMENT, UNLESS SHOWN OTHERWISE.

SHEET KEYNOTES

1. CONSTRUCT CURB AND GUTTER (TYPE A2-6) PER CALTRANS STANDARD PLAN A87A.
2. CONSTRUCT SIDEWALK CONFORM (SEE CONSTRUCTION DETAILS).
3. CONSTRUCT CONCRETE RAMP (SEE CONSTRUCTION DETAILS).
4. ADJUST WATER VALVE COVERS AND FRAMES TO GRADE.
5. "STOP" PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24D.
6. LIMIT LINE PAVEMENT MARKING PER CALTRANS REVISED STANDARD PLAN A24G.
7. SANITARY SEWER MANHOLE WITH CLEANOUT PER COUNTY STANDARD PLAN S-1a.
8. SANITARY SEWER MANHOLE PER COUNTY STANDARD PLAN S-1.
9. 8" SANITARY SEWER MAIN. SEE STRUCTURAL PLANS FOR MOUNTING DETAIL.
10. CONSTRUCT 12" HMA OVER 4" CLASS 2 AGGREGATE BASE.
11. CONCRETE BARRIER (TYPE 732sw) PER CALTRANS STANDARD PLAN B11-59.

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Designer	MP	Design Check	KK	Project Director MW

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Client CALIFORNIA MILITARY DEPARTMENT

Project CAMP SLO BRIDGE 3 REPLACEMENT

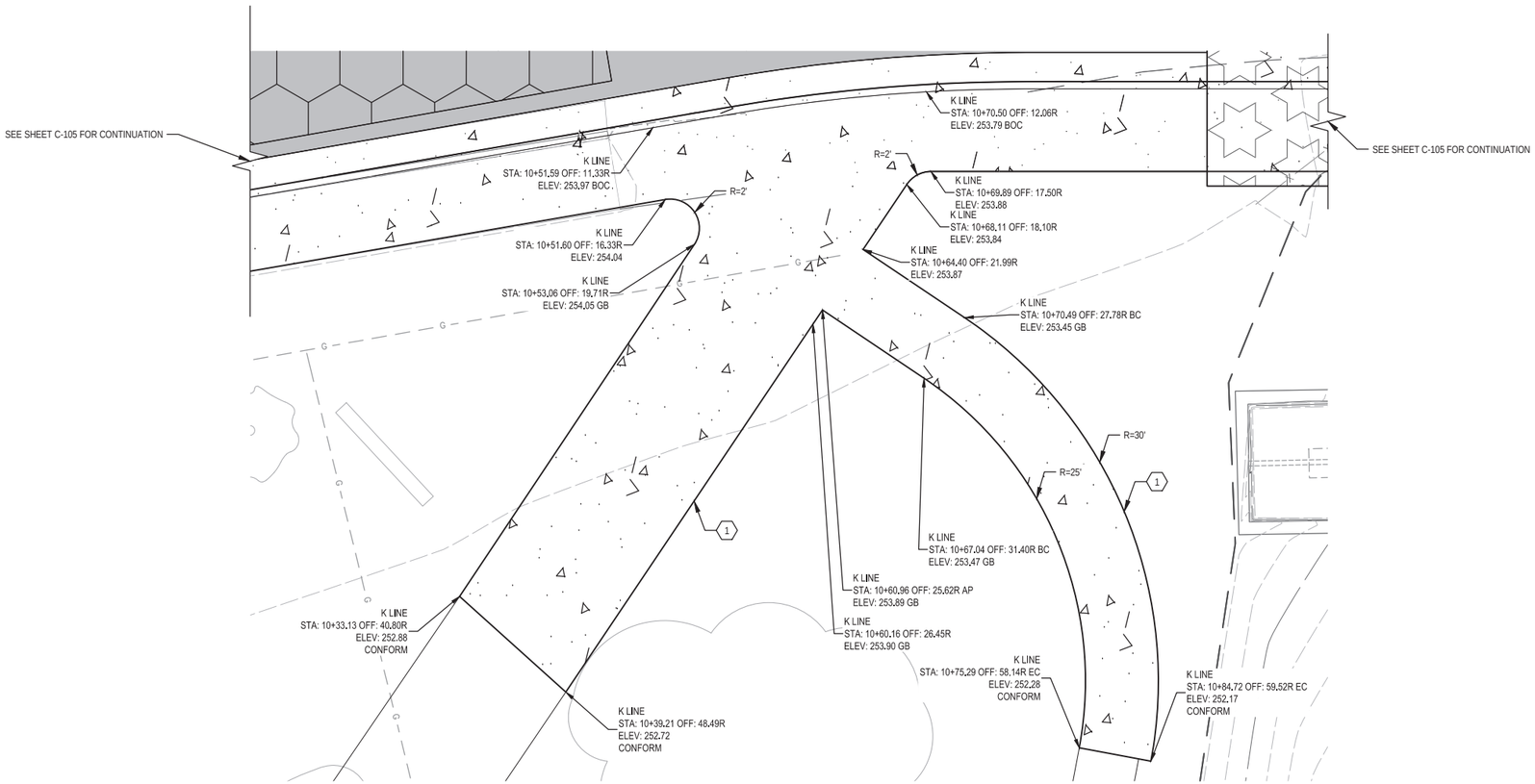
Title IMPROVEMENT PLAN AND PROFILE

Size ANSI D

Project No.	Date	Scale
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Sheet No. C-105

Plot Date: 29 July 2022 - 8:22 AM
Plotted By: Michael Pitcock
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1 SIDEWALK CONNECTION
NO SCALE

SHEET GENERAL NOTES

1. FOR LEGEND AND ABBREVIATIONS, SEE SHEET G-001.

SHEET KEYNOTES

1. 4" PCC OVER 4" CLASS 2 AGGREGATE BASE

65% SUBMITTAL

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Designer	MP	Design Check	KK	Project Director	MW

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Client CALIFORNIA MILITARY DEPARTMENT
Project CAMP SLO BRIDGE 3 REPLACEMENT
Title CONSTRUCTION DETAILS 1
Size ANSI D

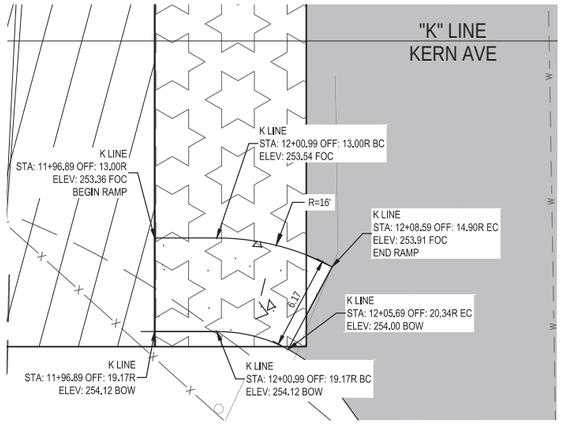
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Sheet No. C-106

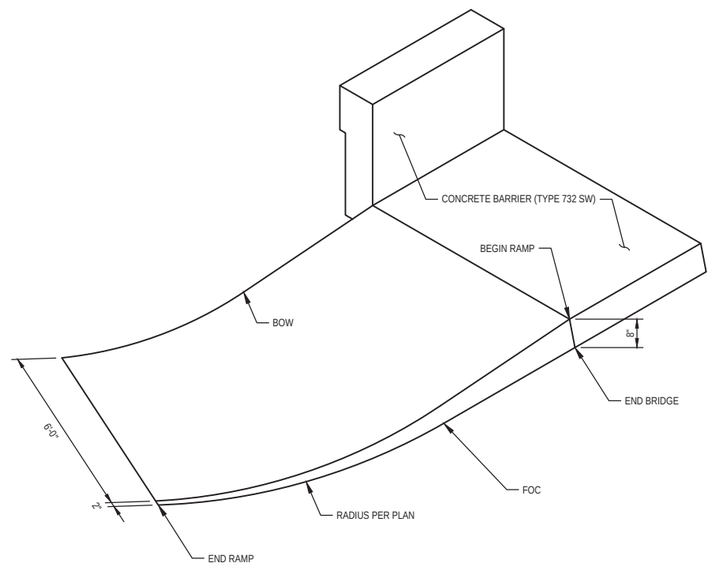
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Plotted By: Michael Pitcock
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SHEET GENERAL NOTES

1. FOR LEGEND AND ABBREVIATIONS, SEE SHEET G-001.



PLAN



ISOMETRIC

2 BRIDGE RAMP CONFORM

NO SCALE

0 10' 20' 40'

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Author	MP	Drafting Check	KK	
Designer	MP	Design Check	KK	
		Project Manager	KK	
		Project Director	MW	

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Client CALIFORNIA MILITARY DEPARTMENT

Project CAMP SLO BRIDGE 3 REPLACEMENT

Title CONSTRUCTION DETAILS 2

Size ANSI D

Project No.	Date	Scale
12562944	7-29-2022	1" = 10'

Sheet No. C-107

Plot Date: 29 July 2022 - 8:22 AM Plotted By: Michael Pitcock Filename: N:\US\Roseville\Projects\561\12562944\Digital_Design\CI\C3D\Sheets\12562944-GHD-00-00-RWY-CI-D101.dwg

ABBREVIATIONS

(D)	DEMOLISH
(E)	EXISTING
(F)	FUTURE
(N)	NEW
A	AMPERES
AC	ALTERNATING CURRENT
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPS INTERRUPTING CAPACITY
ANN	ANNUNCIATOR
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BAT	BATTERY
BFG	BELOW FINISH GRADE
CATV	CABLE TELEVISION
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CO	CONDUIT ONLY
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
EF	EXHAUST FAN
EGU	ENGINE GENERATOR UNIT
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NON-METALLIC TUBING
ELECTROLIER	USED INTERCHANGEABLY WITH SITE LIGHTING
EP	EXPLOSION PROOF
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FC	FOOT CANDLE
FU	FUSE
GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
HID	HIGH INTENSITY DISCHARGE
HOA	"HAND-OFF-AUTO" SWITCH
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HVAC	HEATING, VENTILATION & AIR-CONDITIONING
IG	ISOLATED GROUND
JB	JUNCTION BOX
KAIC	KILO-AMPS INTERRUPTING CAPACITY
KV	KILOVOLT
KVA	KILOVOLT-AMP
KW	KILOWATT
KWH	KILOWATT-HOUR
LPS	LOW PRESSURE SODIUM
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MV	MEDIUM VOLTAGE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OC	ON CENTER
PA	PUBLIC ADDRESS
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PB	PULL BOX, ELECTRICAL
RECPT	RECEPTACLE, OUTLET
RGS	RIGID GALVANIZED STEEL (CONDUIT)
RVSS	REDUCED VOLTAGE SOFT START
RTU	REMOTE TERMINAL UNIT
TV	TELEVISION MONITOR (SET)
TVSS	TRANS. VOLT. SURGE SUPPRESSOR
UF	UNDER FLOOR
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
VA	VOLT-AMP
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
WPI	WEATHERPROOF IN USE
XFMR	TRANSFORMER

ELECTRICAL SYMBOLS LEGEND

POWER

DUPLEX RECEPTACLE, 15A 125V 2P 3W, GROUNDING TYPE, MOUNTING HEIGHT: +18" AFF UON

POWER POLE: P=POWER, T=TELEPHONE, D=DATA, C=COMBINATION

BS — BYPASS TIMER OR TIME SWITCH

PUSHBUTTON

LC — LIGHTING CONTACTOR

SPD — SURGE PROTECTION DEVICE

LIGHTING

OUTDOOR SITE LIGHT, POLE MOUNTED LUMINAIRE ARROW INDICATES AIMING DIRECTION, IF APPLICABLE

EQUIPMENT

N30 — CONCRETE UNDERGROUND HAND HOLE (NUMBER DENOTES CHRISTY SIZE)

CONDUIT

CONDUIT INSTALLED ABOVE GRADE

CONDUIT INSTALLED UNDERGROUND OR UNDER SLAB

CONDUIT STUB-OUT WITH CAP

FLEXIBLE CONDUIT WHIP TO LIGHT FIXTURE OR EQUIPMENT

INDICATES CIRCUIT BREAKER I.D.

L1–4

INDICATES BRANCH PANEL

CONDUIT HOME RUN TO DESIGNATED PANEL, TERMINAL, OR CONTROL CABINET

EXAMPLES:

L1–6,8 — COMMA INDICATES MULTIPLE SINGLE POLE CIRCUITS

L1–10/12 — SLASH INDICATES MULTI–POLE CIRCUIT

NOTE FOR CONDUIT: THE TIC MARKS INDICATE THE QUANTITY OF #12 AWG WIRES OR, IF INDICATED, THE QUANTITY OF OTHER SIZE WIRE OR CABLES.

SEE THE SINGLE LINE DIAGRAM FOR FEEDER SIZES.

EXAMPLES: = (3) #12 = (2) #10

= (1) TYPE F1 CABLE. SEE CABLE SCHEDULE.

OBJECT LINES

NEW OBJECTS
(HEAVY CONTINUOUS LINES, UNDERGROUND CONDUIT HEAVY DASHED LINES)

EXISTING OBJECTS TO REMAIN. MAY INCLUDE NEW CIRCUITING ETC.
(FINE CONTINUOUS LINES, UNDERGROUND CONDUIT FINE DASHED LINES)

EXISTING OBJECTS TO BE DEMOLISHED
(EXTRA FINE DASHED LINES, SCREENED)

ANNOTATION

1 — KEYNOTE

1 — DEMOLITION NOTE

10 — RACEWAY, FEEDER OR CIRCUIT DESIGNATION (SEE SCHEDULE)

DENOTES TYPE — A 180 — DENOTES WATTS

LIGHTING FIXTURE TYPE DESIGNATION (SEE SCHEDULE)

DETAIL NUMBER — 1 E–501 — SHEET NUMBER ON WHICH DETAIL APPEARS

DETAIL INDICATOR

SECTION LETTER — A E–301 — SHEET NUMBER ON WHICH SECTION APPEARS

SECTION INDICATOR

GENERAL ELECTRICAL NOTES

1. CLOSELY COORDINATE WORK WITH OTHER TRADES.
2. ALL SYSTEMS, COMPONENTS, CONNECTIONS AND WORK SHOWN OR DESCRIBED WITHIN THE CONTRACT DOCUMENTS IS NEW UNLESS EXPLICITLY INDICATED AS EXISTING.
3. ALL WORK SHALL CONFORM TO AND BE PERFORMED IN ACCORDANCE WITH CODES, STANDARDS, AND ORDINANCES AS SET FORTH BY THE AUTHORITIES HAVING JURISDICTION.
4. INFORMATION SHOWN AS EXISTING CONDITIONS WAS PRIMARILY GAINED FROM "AS BUILT" DRAWINGS AND LIMITED FIELD INVESTIGATION. BEFORE CONSTRUCTION, VISIT SITE TO VERIFY EXISTING CONDITIONS AND PROVIDE ALLOWANCE FOR VARIATIONS FROM THAT SHOWN.
5. INTERCEPT, EXTEND, REROUTE, REPULL CONDUCTORS AND OTHERWISE MODIFY EXISTING CONDUCTORS OF ALL SYSTEMS AS REQUIRED TO MAINTAIN AND ESTABLISH PROPER FUNCTION AND SATISFY DESIGN INTENT. REMOVE ALL ABANDONED CONDUCTORS AND CONDUIT.
6. PRIOR TO COMMENCING WORK, COORDINATE WITH BASE COMMAND REPRESENTATIVES. WHERE DISCONNECTING, MODIFYING OR WORKING ON EXISTING EQUIPMENT AND SYSTEMS: PROVIDE A WRITTEN METHOD OF PROCEDURE OUTLINING DATES, TIMES, DURATION AND A DETAILED DESCRIPTION OF PROPOSED WORK FOR APPROVAL. WORK SHALL NOT COMMENCE UNTIL BASE COMMAND ISSUES WRITTEN AUTHORIZATION TO PERFORM WORK ON EXISTING SYSTEMS.
7. RETEST ALL SYSTEMS WHERE MODIFYING EXISTING SYSTEMS TO VERIFY THAT THE AFFECTED SYSTEM OPERATE AS INTENDED.
8. ALL EQUIPMENT SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURERS INSTRUCTIONS.
9. ALL EQUIPMENT SHALL BE GROUNDED PER THE REQUIREMENTS OF CEC ARTICLES 250. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL POWER SYSTEM RACEWAYS.
10. WIRING METHODS FOR THIS PROJECT SHALL BE AS FOLLOWS:
    - (A) PVC SCHEDULES 40 - UNDERGROUND.
    - (B) GALVANIZED RIGID STEEL (GRS) - UNDERGROUND ELBOW / RISER TO ABOVE GRADE (PVC TAPE WRAPPED) AND WHERE EXPOSED.
    - (C) SEALTIGHT FLEXIBLE CONDUIT WHERE SHOWN IN CONTRACT DOCUMENTS.
11. PULLROPES: ALL RACEWAY SHALL BE INSTALLED WITH MINIMUM 200 POUND TEST PULL LINE.
12. DUCT SEAL: ALL RACEWAYS ENTERING ENCLOSURES, MANHOLES OR PULLBOXES FROM UNDERGROUND, OR WHERE RACEWAYS TRANSITION FROM EXTERIOR LOCATIONS TO INTERIOR LOCATIONS SHALL BE PROVIDED WITH MASTIC SEALANT COMPOUND TO COMPLETELY SEAL THE RACEWAY AFTER CONDUCTORS AND PULLROPES ARE INSTALLED WITHIN THE RACEWAY, AND PRIOR TO COMMISSIONING SYSTEMS. SEALANT SHALL BE IDEAL 31-601 MASTIC COMPOUND OR APPROVED EQUAL.

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Project: CAMP SLO BRIDGE 3 REPLACEMENT

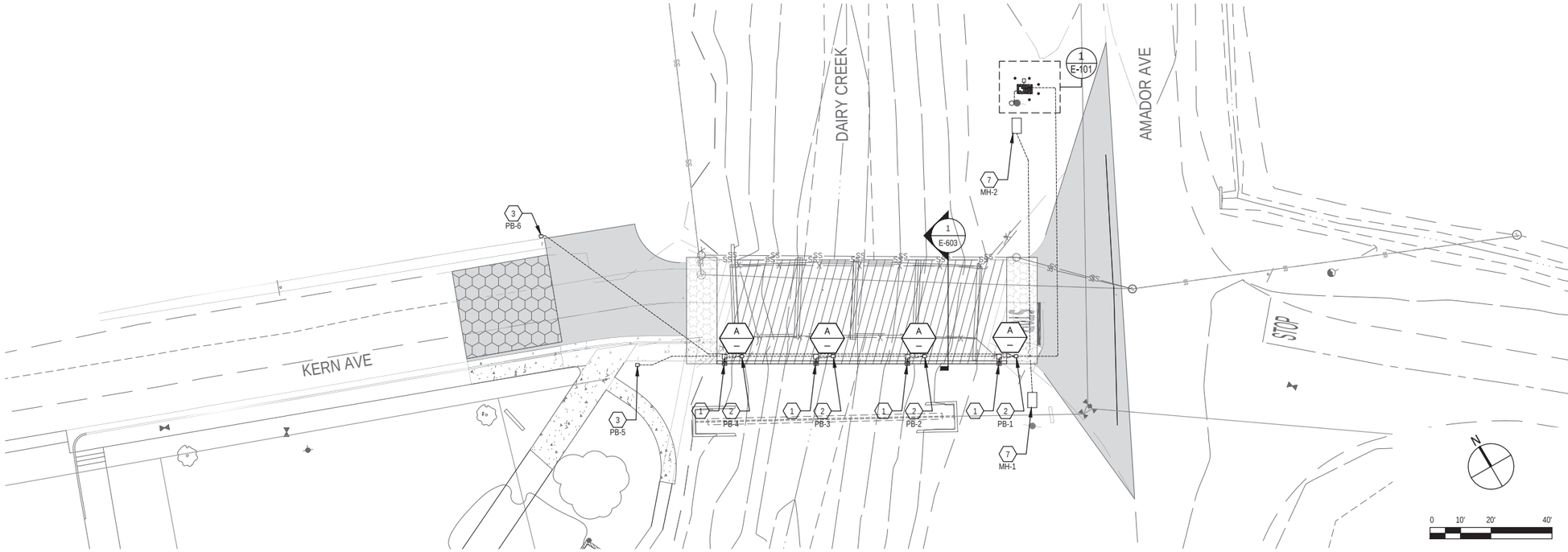
Title: ELECTRICAL SYMBOLS, LEGEND, NOTES, AND ABBREVIATIONS

Size: ANSI D

Project No.	Date	Scale
12562944	7-29-2022	NONE

Sheet No: E-001

Plot Date: 29 July 2022 - 2:15 PM Plotted By: Michael Pitcock Filename: N:\US\Roseville\Projects\56\12562944\Digital_Design\EL\AutoCAD\Sheets\12562944-GHD-00-00-RWY-EL-E001.dwg



BRIDGE 3 - ELECTRICAL SITE PLAN

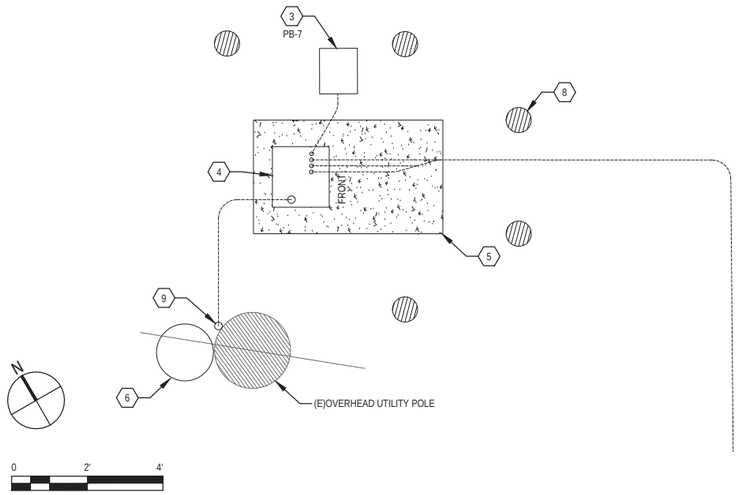
SCALE: 1" = 20'

SHEET GENERAL NOTES

1. FOR LEGEND AND ABBREVIATIONS, REFER TO SHEET E-001.
2. REFER TO SHEET E-301 FOR CONDUIT/CABLE REQUIREMENTS AND LIGHTING CONTROL REQUIREMENTS.

SHEET KEYNOTES

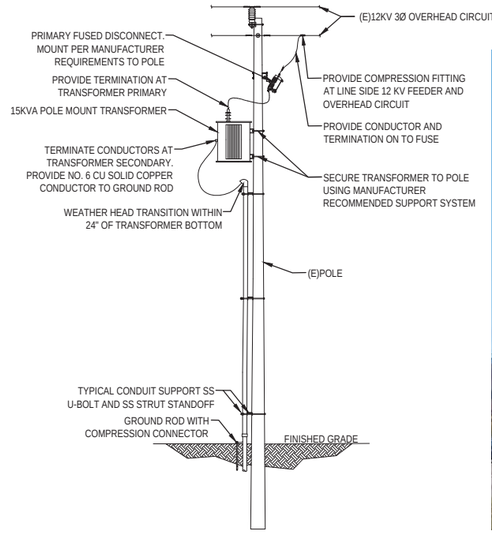
1. TYPE 'A' POLE MOUNT LIGHT. REFER TO SHEET E-603/DETAIL 1 FOR MOUNTING REQUIREMENTS.
2. 11" x 17" PULLBOX WITH CONCRETE BOLT DOWN COVER. MOUNT FLUSH IN SIDEWALK.
3. 11" x 17" PULLBOX WITH H-20 RATED BOLT DOWN STEEL COVER. MOUNT 1" AFG.
4. POWER DISTRIBUTION PEDESTAL "BRIDGE 3 - POWER". REFER TO REFER TO SHEET E-602/DETAIL 1 FOR REQUIREMENTS
5. POWER DISTRIBUTION PEDESTAL SLAB. REFER TO REFER TO SHEET E-602/DETAIL 2 FOR REQUIREMENTS.
6. POLE MOUNT 15KVA,240V/120V, 1Ø TRANSFORMER. REFER TO DETAIL 2 FOR REQUIREMENTS.
7. COMMUNICATIONS 36" x 60" VAULT. MOUNT 1" AFG.
8. 4" BOLLARD. TYPICAL OF 5.
9. TRANSITION RGS CONDUIT UP POLE TO WITHIN 24" OF TRANSFORMER BOTTOM. TERMINATE CONDUIT USING 2" WEATHERHEAD.



1 E-101

PARTIAL SITE PLAN

SCALE: 1" = 2'





2 E-101

OVERHEAD POWER REQUIREMENTS

SCALE: NONE

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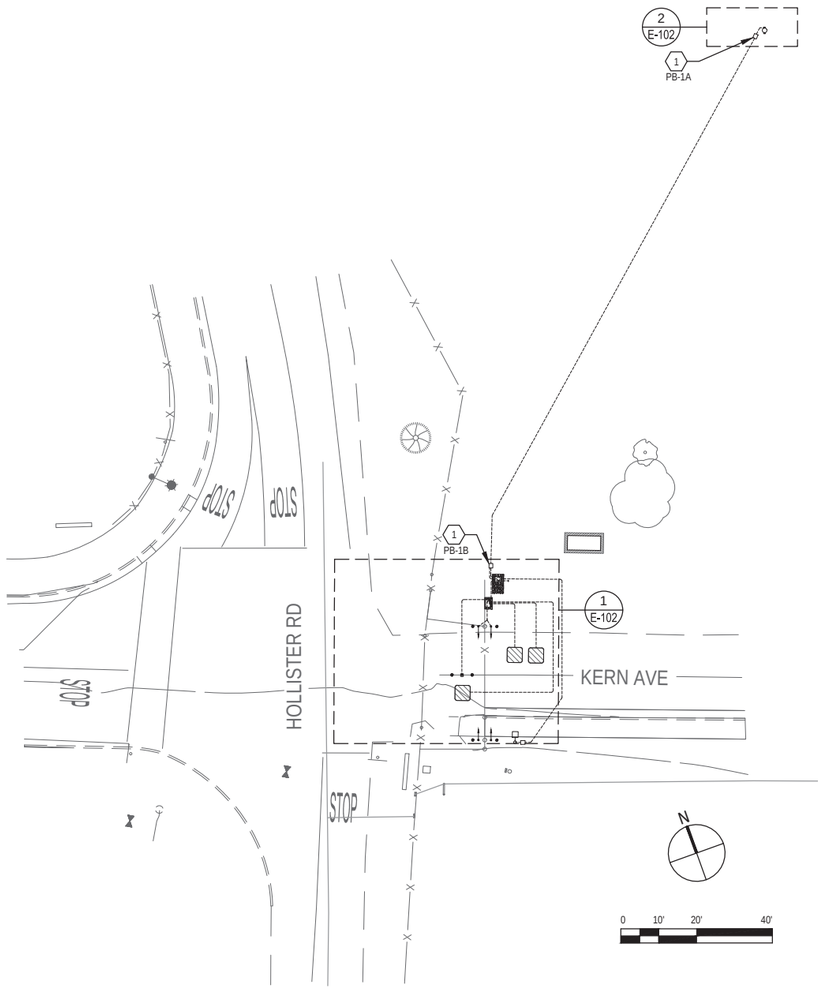
Title ELECTRICAL BRIDGE SITE PLAN AND DETAILS

Size ANSI D

Project No.	Date	Scale
12562944	7-29-2022	PER PLAN

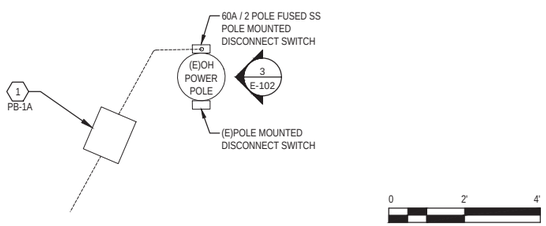
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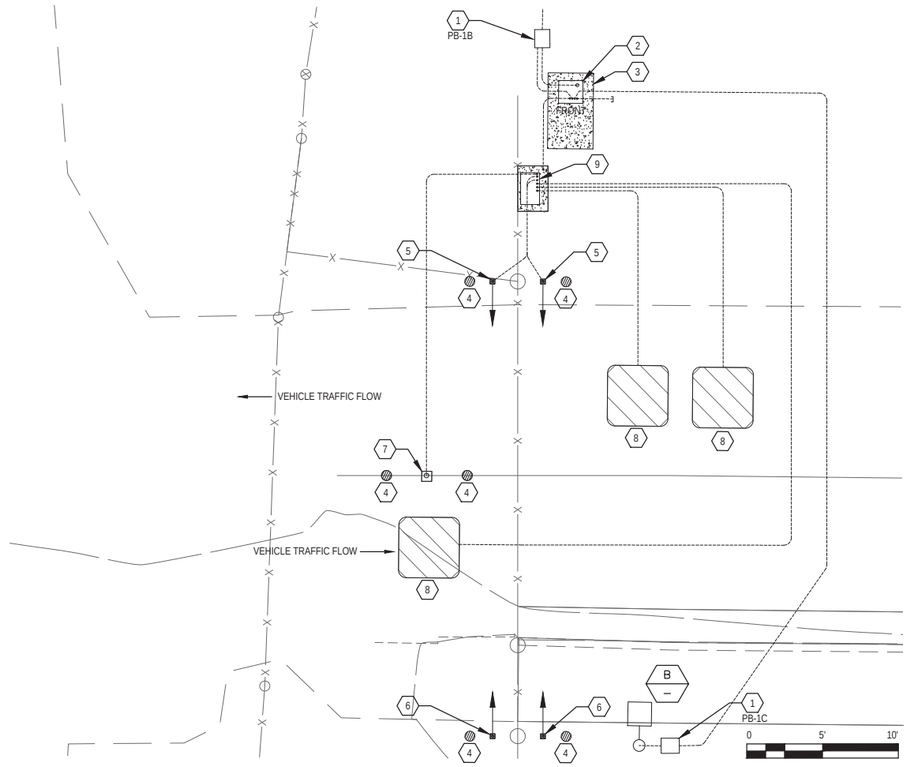
MOTORIZED ACCESS GATE - ELECTRICAL SITE PLAN

SCALE: 1" = 20'



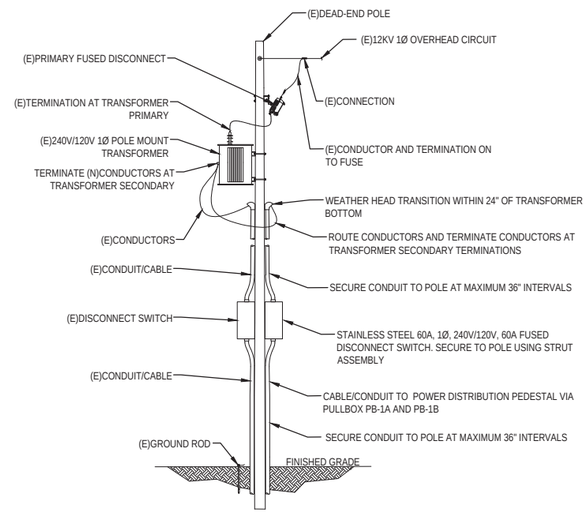
2 E-102 **MOTORIZED ACCESS GATE - ELECTRICAL PARTIAL SITE PLAN**

SCALE: 1" = 2'



1 E-102 **MOTORIZED ACCESS GATE - ELECTRICAL PARTIAL SITE PLAN**

SCALE: 1" = 5'



3 E-102 **POWER REQUIREMENTS AT (E)POLE**

SCALE: NONE

SHEET GENERAL NOTES

1. FOR LEGEND AND ABBREVIATIONS, REFER TO SHEET E-001.
2. REFER TO SHEET E-301 FOR CONDUIT/CABLE REQUIREMENTS AND LIGHTING CONTROL REQUIREMENTS.

SHEET KEYNOTES

1. 11" x 17" PULLBOX WITH H-20 RATED BOLT DOWN STEEL COVER. MOUNT 1" AFG.
2. POWER DISTRIBUTION PEDESTAL "KERN AVE. GATE - POWER". REFER TO SHEET E-602/DETAIL 1 AND SHEET E-602/DETAIL 2 FOR REQUIREMENTS.
3. POWER DISTRIBUTION PEDESTAL SLAB. REFER TO REFER TO SHEET E-602/DETAIL 2 FOR REQUIREMENTS
4. 4" BOLLARD.
5. GATE OPERATOR PHOTO EYE. MOUNT AT 42" AFG ON 48" x 4" SQUARE BASE. INSTALL PER MANUFACTURER REQUIREMENTS.
6. GATE OPERATOR PHOTO EYE REFLECTOR. MOUNT AT 42" AFG ON 48" x 4" SQUARE BASE. ALIGN WITH PHOTO EYE FOR INTENDED FUNCTIONALITY.
7. GATE OPERATOR KEYPAD. INSTALL PER MANUFACTURER REQUIREMENTS. REFER TO SHEET E-602/DETAIL 3 FOR MOUNTING REQUIREMENTS.
8. GATE OPERATOR VEHICLE LOOP DETECTOR. INSTALL PER MANUFACTURER REQUIREMENTS.
9. CANTILEVERED SLIDING GATE OPERATOR. COORDINATE CONDUIT STUB-UP LOCATIONS WITH MANUFACTURER CUT SHEETS. REFER TO SHEET E-602/DETAIL 4 FOR REQUIREMENTS.
10. TYPE 'B' POLE MOUNT LIGHT. REFER TO SHEET E-603/DETAIL 2 FOR MOUNTING REQUIREMENTS.

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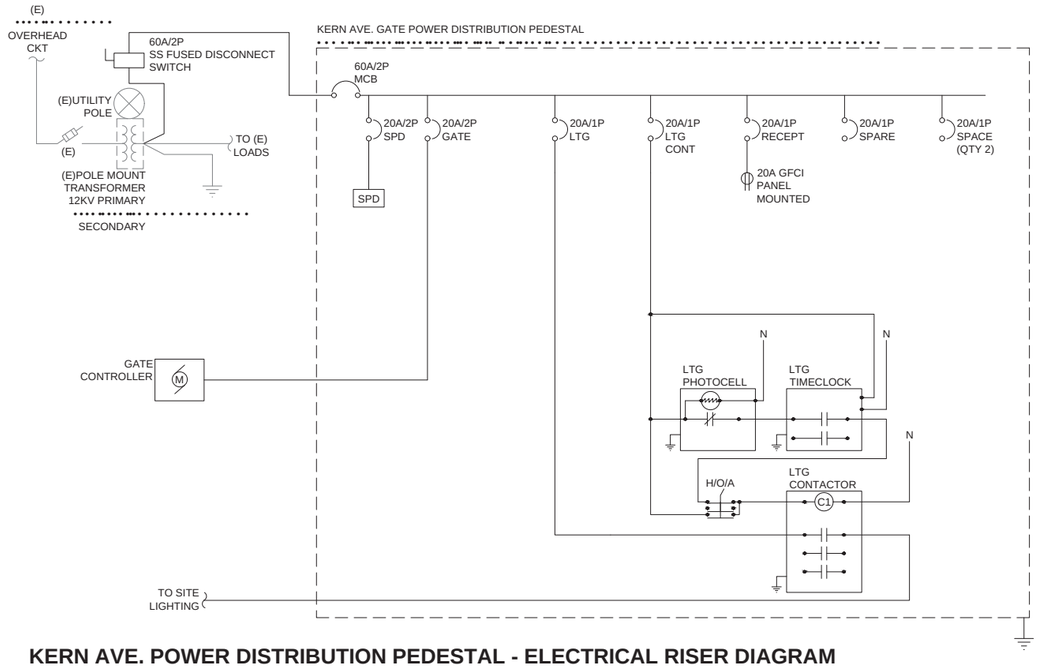
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Size ANSI D

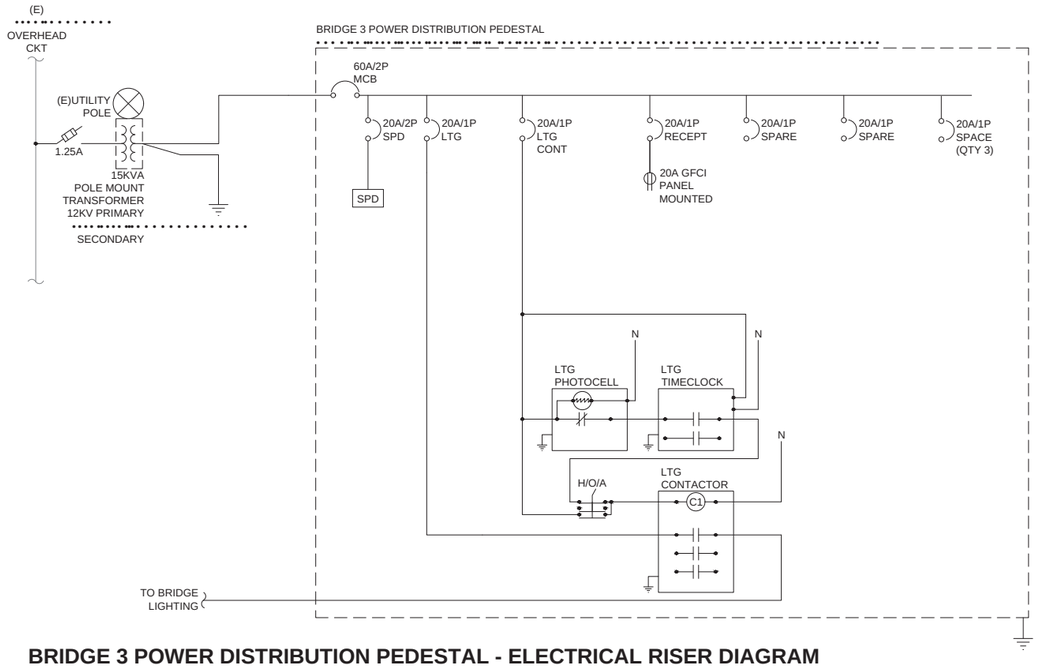
Project No.	Date	Scale
12562944	7-29-2022	PER PLAN

Sheet No. E-102

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KERN AVE. POWER DISTRIBUTION PEDESTAL - ELECTRICAL RISER DIAGRAM



BRIDGE 3 POWER DISTRIBUTION PEDESTAL - ELECTRICAL RISER DIAGRAM

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Project CAMP SLO BRIDGE 3 REPLACEMENT

Title ELECTRICAL RISER DIAGRAMS AND SCHEDULES

Size ANSI D

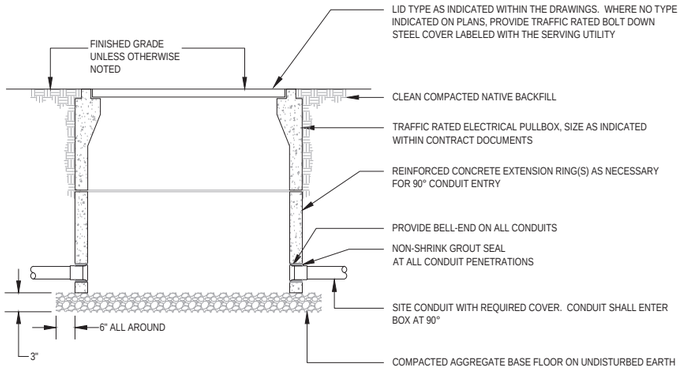
Project No. 12562944

Date 7-29-2022

Scale NONE

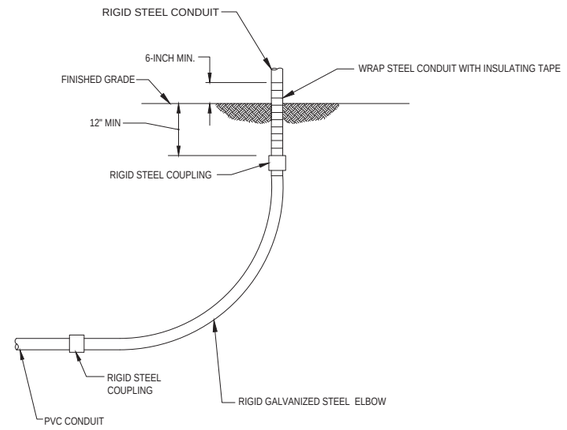
Sheet No. E-301

Plot Date: 29 July 2022 - 2:16 PM
Plotted By: Michael Pitcock
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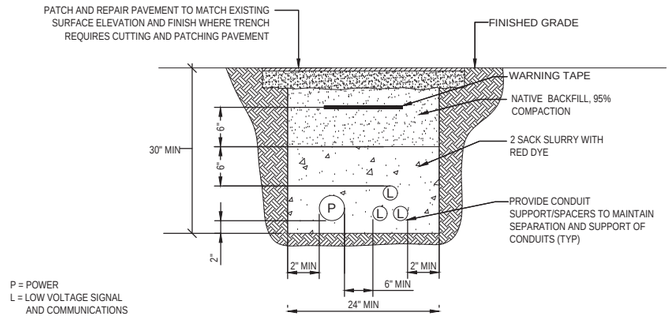
1 - TYPICAL IN-GROUND PULLBOX DETAIL

SCALE: NONE



2 - TYPICAL CONDUIT TRANSITION

SCALE: NONE



P = POWER
L = LOW VOLTAGE SIGNAL
AND COMMUNICATIONS

NOTES:

1. REFER TO ELECTRICAL SITE PLAN, SHEETS FOR CONDUIT REQUIREMENTS.
2. EXPAND TRENCH WIDTH AND AS NECESSARY TO MAINTAIN SEPARATION AS INDICATED.

3 - TYPICAL ELECTRICAL TRENCH DETAIL

SCALE: NONE

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Title ELECTRICAL DETAILS

Size ANSI D

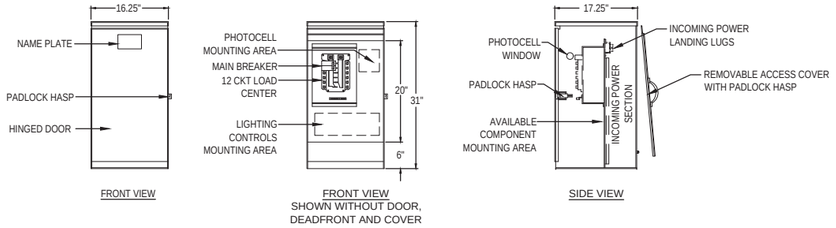
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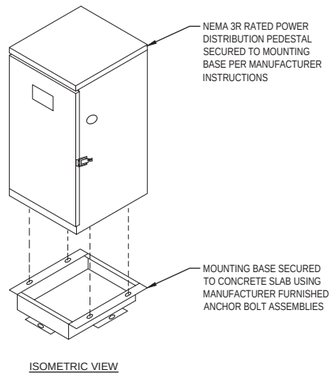
Date 7-29-2022

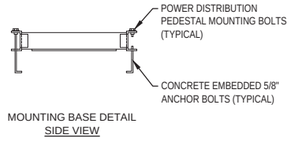
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Sheet No. E-601

Plot Date: 29 July 2022 - 2:16 PM
Plotted By: Michael Pitcock
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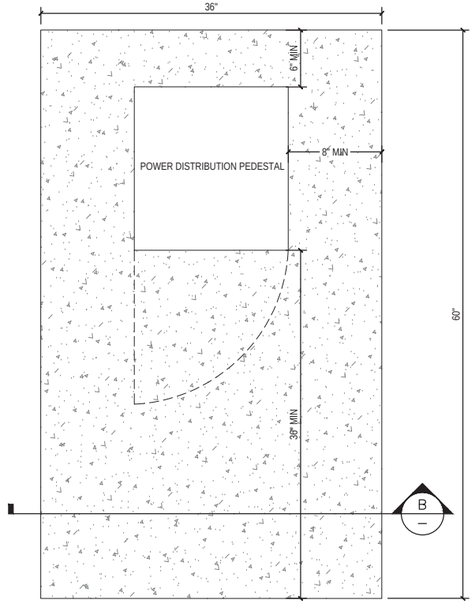






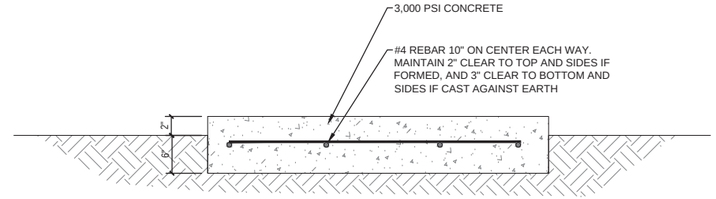
NOTES:
1. POWER DISTRIBUTION PEDESTAL SHALL BE MYERS CUSTOM PRODUCTS MODEL MEUG16-UM-31 OR APPROVED EQUAL.
2. POWER DISTRIBUTION PEDESTAL ENCLOSURE SHALL BE NEMA 3R RATED.

1 - TYPCIAL POWER DISTRIBUTION PEDESTAL DETAIL
SCALE: NONE



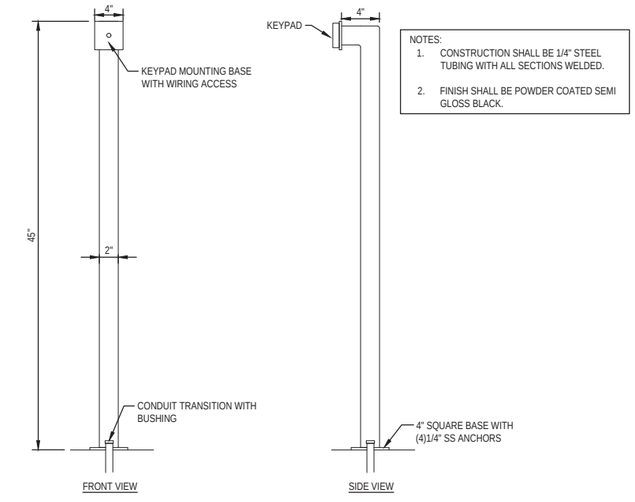
A - PLAN VIEW
SCALE: NONE

NOTES:
1. CONCRETE PAD DIMENSIONS ARE MINIMUM DIMENSIONS BASED ON SPECIFIED POWER DISTRIBUTION PEDESTAL. CONTRACTOR SHALL NOT FORM OR POUR CONCRETE PAD UNTIL THE FINAL DIMENSIONS ARE COORDINATED WITH SUBMITTED AND APPROVED POWER DISTRIBUTION PEDESTAL.
2. SECURE PEDESTAL TO PAD USING A MINIMUM OF (4)5/8" ANCHOR BOLT ASSEMBLIES SUPPLIED BY MANUFACTURER. INSTALL ANCHOR ASSEMBLIES BASED ON MANUFACTURER INSTRUCTIONS.



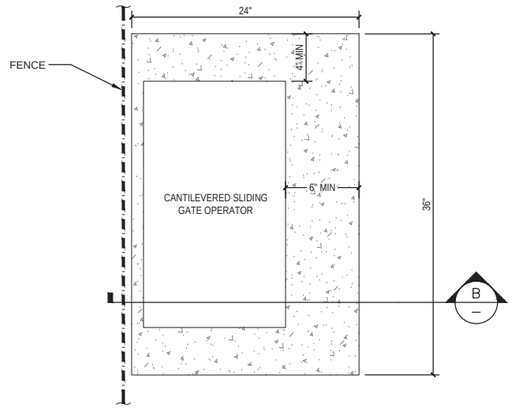
B - SIDE ELEVATION
SCALE: NONE

2 - TYPCIAL POWER DISTRIBUTION PEDESTAL CONCRETE PAD DETAIL
SCALE: NONE



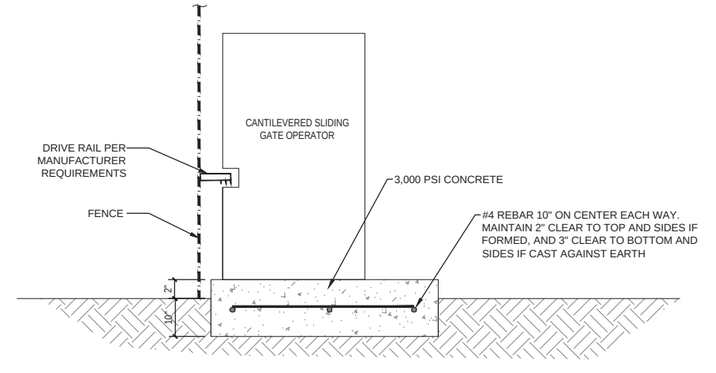
NOTES:
1. CONSTRUCTION SHALL BE 1/4" STEEL TUBING WITH ALL SECTIONS WELDED.
2. FINISH SHALL BE POWDER COATED SEMI GLOSS BLACK.

3 - GATE OPERATOR KEYPAD DETAIL
SCALE: NONE



A - PLAN VIEW
SCALE: NONE

NOTES:
1. CONCRETE PAD DIMENSIONS ARE MINIMUM DIMENSIONS BASED ON SPECIFIED OPERATOR. CONTRACTOR SHALL NOT FORM OR POUR CONCRETE PAD UNTIL THE FINAL DIMENSIONS ARE COORDINATED WITH SUBMITTED AND APPROVED GATE OPERATOR.
2. REFER TO MANUFACTURER REQUIREMENTS FOR GATE DRIVE RAIL INTERFACE DIMENSIONS.
3. SECURE GATE OPERATOR TO PAD USING A MINIMUM OF (4)5/8" EPOXY BASED STAINLESS STEEL ANCHOR ASSEMBLIES EMBEDDED A MINIMUM OF 6".



B - SIDE ELEVATION
SCALE: NONE

4 - CANTILEVERED SLIDING GATE OPERATOR CONCRETE PAD DETAIL
SCALE: NONE

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Designer	MT	Design Check	KK	Project Director MW

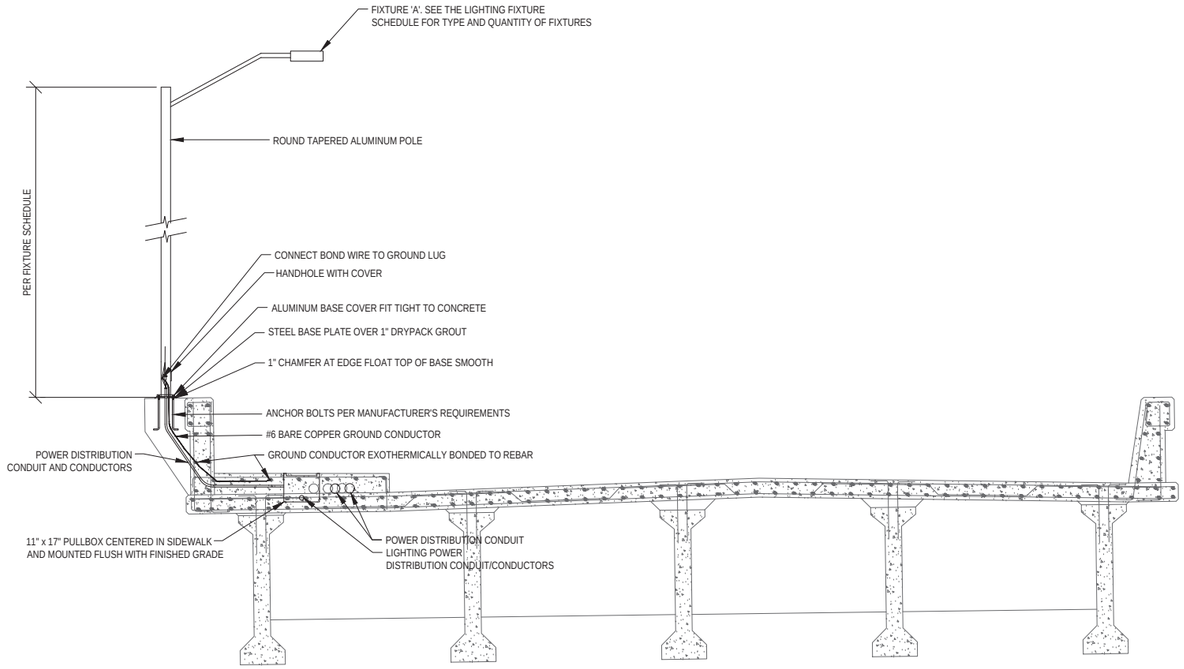
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0 1"

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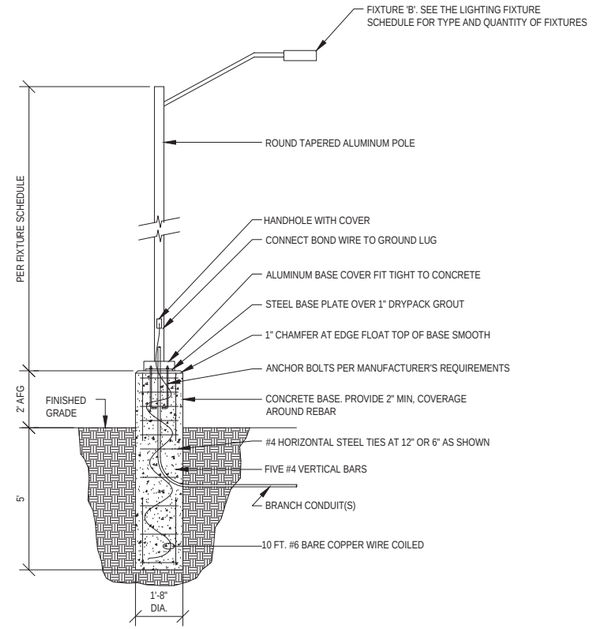
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Client CALIFORNIA MILITARY DEPARTMENT
Project CAMP SLO BRIDGE 3 REPLACEMENT
Title ELECTRICAL DETAILS
Size ANSI D
Project No. 12562944
Date 7-29-2022
Scale NONE
Sheet No. E-602

Plot Date: 29 July 2022 - 2:16 PM
Plotted By: Michael Pitcock
Filename: N:\US\Roseville\Projects\561\12562944\Digital_Design\EL\AutoCAD\Sheets\12562944-GHD-00-00-RWY-EL-E602.dwg



1 - **TYPCIAL POWER AND LIGHTING DETAIL AT BRIDGE**
SCALE: NONE



2 - **TYPCIAL TYPE "B" LIGHT FIXTURE REQUIREMENTS**
SCALE: NONE

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Client CALIFORNIA MILITARY DEPARTMENT
Project CAMP SLO BRIDGE 3 REPLACEMENT
Title ELECTRICAL DETAILS
Size ANSI D

Project No.	Date	Scale	Sheet No.
12562944	7-29-2022	NONE	E-603

Plot Date: 29 July 2022 - 2:15 PM
Plotted By: Michael Pitcock
Filename: N:\US\Roseville\Projects\561\12562944\Digital_Design\EL\AutoCAD\Sheets\12562944-GHD-00-00-RWY-EL-E603.dwg

ABBREVIATIONS

ABUT	ABUTMENT
ALT	ALTERNATE
BB	BEGIN BRIDGE
BC	BEGIN HORIZONTAL CURVE
BM	BENCH MARK
BR	BRIDGE
BVC	BEGIN VERTICAL CURVE
℄	CENTERLINE
CLR	CLEAR, CLEARANCE
CONC	CONCRETE
DIA	DIAMETER
EA	EACH
EB	END BRIDGE
EC	END HORIZONTAL CURVE
ELEV	ELEVATION
EVC	END VERTICAL CURVE
EXIST	EXISTING
FG	FINISHED GRADE
FTG	FOOTING
L	LENGTH
LOL	LAYOUT LINE
LT	LEFT
MAX	MAXIMUM
MBGR	METAL BEAM GUARD RAILING
MIN	MINIMUM
MR	MOVEMENT RATING
NO.	NUMBER
Ø	NOMINAL DIAMETER
OD	OUTSIDE DIAMETER
OG	ORIGINAL GROUND
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
POC	POINT ON HORIZONTAL CURVE
POT	POINT ON TANGENT
PP	POWER POLE
R	RADIUS
REINF	REINFORCED OR REINFORCING
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
RW	RETAINING WALL
R/W	RIGHT OF WAY
SHT	SHEET
STA	STATION
STD	STANDARD
STR	STRUCTURE
TYP	TYPICAL
VC	VERTICAL CURVE
VERT	VERTICAL
WSEL	WATER SURFACE ELEVATION
WW	WING WALL

GENERAL STRUCTURE NOTES

GENERAL

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITY LINES AND NOTIFY THE RESPECTIVE OWNERS BEFORE COMMENCING THE WORK OF EXCAVATION, INCLUDING ANY TEMPORARY PILING OR SHEET PILING.
2. CONSTRUCTION JOINTS MAY BE ADDED, DELETED OR RELOCATED SUBJECT TO THE APPROVAL OF THE ENGINEER.
3. UNLESS OTHERWISE NOTED, ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 1".
4. ALL UNITS ARE IN IMPERIAL ENGLISH (FEET, INCHES, KIPS, ETC).

DESIGN

1. BRIDGE DESIGN IN ACCORDANCE WITH "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS", NINTH EDITION, 2020.

LOADS

1. LIVE LOAD, DESIGNATED MILITARY LOAD CLASSIFICATION MLC 40.
2. SEISMIC FORCES (PER AASHTO):

Ss =	1.01G
S1 =	0.37G
PEAK GROUND ACCELERATION	0.39G (CLASS S1 SOIL)
SOIL CLASS	D
IMPORTANCE CATEGORY	CRITICAL
RESPONSE MODIFICATION FACTOR	
R = 0.8 FOR CONNECTIONS	
R = 1.5 FOR ALL OTHER PARTS	

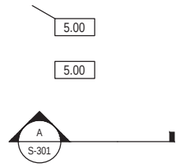
MATERIALS

1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE STANDARD SPECIFICATIONS.
2. CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI UNLESS NOTED OTHERWISE.
3. CONCRETE IN PRESTRESSED GIRDERS SHALL CONFORM WITH THE MINIMUM INITIAL COMPRESSIVE STRENGTH AT RELEASE f'ci OF 4,000 PSI, AND 28 DAY COMPRESSIVE STRENGTH f'c OF 5,000 PSI, AS SHOWN ON SHEET S-501.
4. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
5. DIMENSIONS RELATING TO SPACING OF REINFORCING STEEL ARE TO CENTERS OF BARS. DIMENSIONS RELATED TO CONCRETE COVER SHALL BE TO EDGE OF BARS.
6. PRESTRESSING STEEL SHALL BE ½" DIAMETER, 7-WIRE, GRADE 270 LOW RELAXATION PRESTRESSING WIRE STRAND CONFORMING TO ASTM A416.

CONSTRUCTION METHODS

1. SEE PROJECT SPECIFICATIONS.
2. TOP OF CONCRETE DECK SLAB SHALL BE CONSTRUCTED TO FOLLOW THE ROADWAY VERTICAL AND HORIZONTAL CURVES.
3. EXCEPT AS OTHERWISE NOTED, ALL VERTICAL DIMENSIONS ARE MEASURED PLUMB.
4. DECK SURFACES AND APPROACH SLABS SHALL BE GIVEN A BROOM FINISH NORMAL TO THE CENTERLINE OF BRIDGE.
5. PRECAST GIRDERS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AND SHALL BE LIFTED BY SUITABLE DEVICES PROVIDED AT THE END OF BEAMS. THE CONTRACTOR'S PROPOSED LIFTING DETAILS SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER. THE USE OF HOLES FOR LIFTING PURPOSES WILL NOT BE PERMITTED.

SYMBOLS



ELEVATION, BOTTOM OF ABUTMENT

ELEVATION, FINISH GRADE

CROSS SECTION

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No.	Issue	Checked	Approved	Date

Author DS | Drafting Check MJ | Project Manager MATT WEBER

Designer MJ | Design Check JP | Project Director TONY PETROCCITTO

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Client CALIFORNIA MILITARY DEPARTMENT

Project CAMP SLO BRIDGE 3 REPLACEMENT

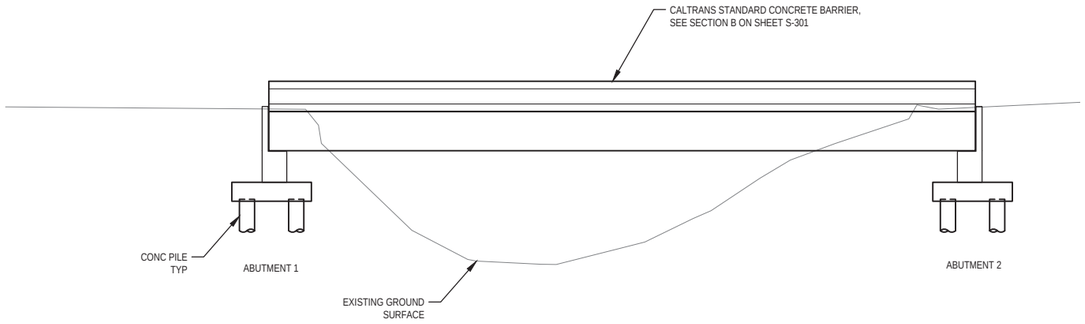
Title STRUCTURAL NOTES

Size ANSI D

Project No. 12562944 | Date 7-29-2022 | Scale AS SHOWN

Sheet No. S-001

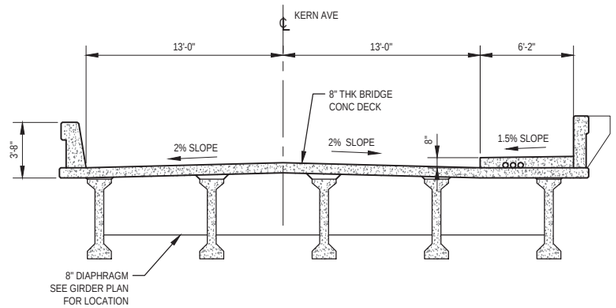
Plot Date: 28 July 2022 - 8:48 AM | Plotted By: Dan Song | Filename: N:\US\Roseville\Projects\56\12562944\Digital_Design\ST\AutoCAD\Sheets\12562944-GHD-00-00-BRG-ST-D001.dwg



2 ELEVATION - BRIDGE 3

SCALE: 1"=10'

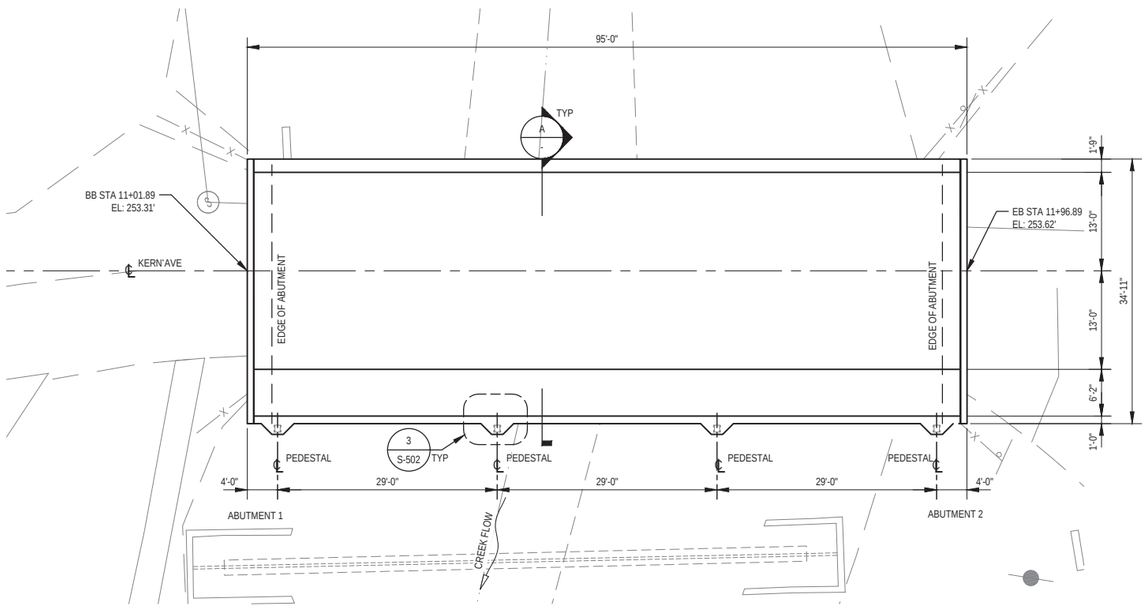
0 10' 20'



A SECTION

SCALE: 1"=5'

0 5' 10'



1 GENERAL PLAN - BRIDGE 3

SCALE: 1"=10'

0 10' 20'

SHEET GENERAL NOTES

1. FOR ARS DESIGN CURVE SEE SHEET S-102.

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
BRIDGE DESIGN SPECIFICATIONS
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION WITH INTERIMS AND REVISIONS BY CALTRANS DATED SEPTEMBER, 2021

SEISMIC DESIGN:
CALTRANS SEISMIC DESIGN CRITERIA (SDC), VERSION 2.0 APRIL 2019

LIVE LOADING:
MILITARY LOAD CLASSIFICATION (MLC) CLASS 40

SEISMIC LOADING:
SOIL PROFILE: Vs30 = 310 m/s
MOMENT MAGNITUDE: Mmax =6.76 (BARTLETT SPRINGS 2011 CFM)
PEAK GROUND ACCELERATION = 0.39g
SEE 'ARS DESIGN CURVE'

REINFORCED CONCRETE:
f'c = 5,000 psi
fy = 60,000 psi

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Author	DS	Drafting Check	MJ	Project Manager MATT WEBER
Designer	MJ	Design Check	JP	Project Director TONY PETROCCITTO

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Project CAMP SLO BRIDGE 3 REPLACEMENT

Title GENERAL PLAN

Size ANSI D

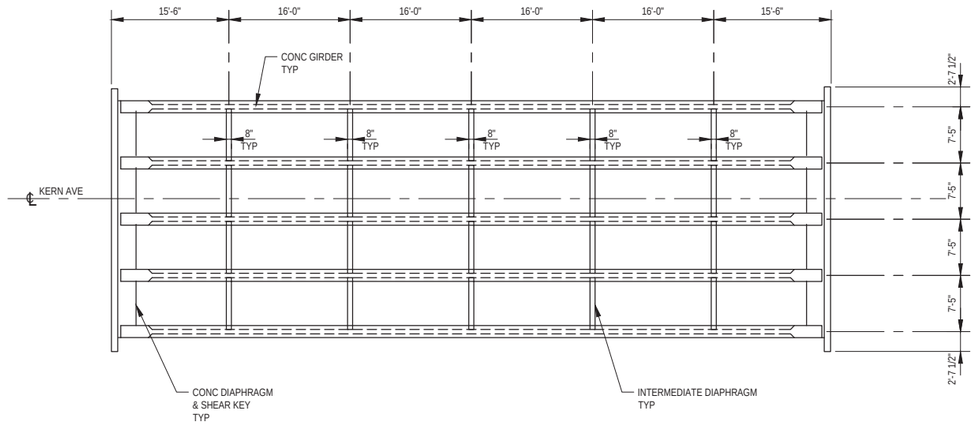
Project No. 12562944

Date 7-29-2022

Scale AS SHOWN

Sheet No. S-101

Plot Date: 28 July 2022 - 8:58 AM
Plotted By: Dan Song
Filename: N:\US\Roseville\Projects\561\12562944\Digital_Design\STI\AutoCAD\Sheets\12562944-GHD-00-00-BRG-ST-D101.dwg



PLAN NORTH

3 GIRDER PLAN - BRIDGE 3

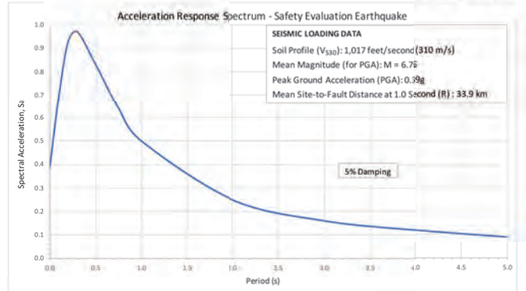
SCALE: 1"=10' 0 10' 20'

GROUND MOTION DATA SHEET - SAFETY EVALUATION EARTHQUAKE (SEE)

Camp SLO Bridge 3
San Luis Obispo, California

Caltrans Seismic Design Criteria: V2.0
Caltrans ARS Online Version: V3.0.2
Date Accessed: 10/28/2021

Period (s)	Spectral Acceleration, Sa (g)
0.000	0.390
0.100	0.700
0.200	0.930
0.300	0.970
0.500	0.830
0.750	0.640
1.000	0.500
2.000	0.250
3.000	0.160
4.000	0.120
5.000	0.090



The Accleration Response Spectrum (ARS) for the Safety Evaluation Earthquake (SEE) is based on the USGS 2014 National Seismic Hazard Map for 975-year return period, (Hazard Model/Edition "Dynamic Conterminous U.S. 2014 (Update)(V4.20)") hazard data obtained by using ARS Online. Modifications for basin-effects and/or near-fault effects were applied, where

SHEET GENERAL NOTES

1.

PLAN NORTH

1 FOUNDATION PLAN - BRIDGE 3

SCALE: 1"=10' 0 10' 20'

PLAN NORTH

2 ABUTMENT PLAN - BRIDGE 3

SCALE: 1"=10' 0 10' 20'

65% SUBMITTAL

No.	Issue	Checked	Approved	Date
Author	DS	Drafting Check	MJ	Project Manager MATT WEBER
Designer	MJ	Design Check	JP	Project Director TONY PETROCCITTO

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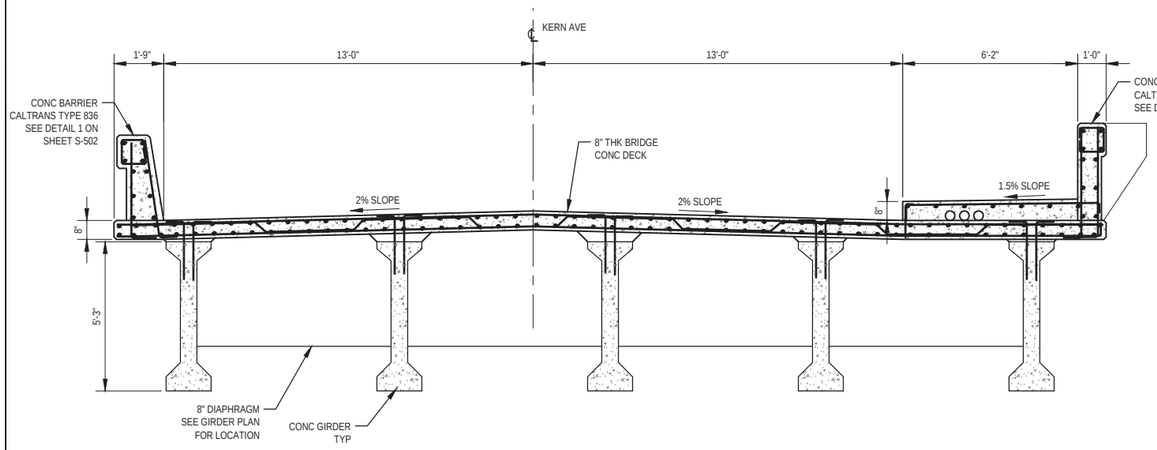
Title FOUNDATION, ABUTMENT, AND GIRDER PLANS

Size ANSI D

Project No.	Date	Scale
12562944	7-29-2022	AS SHOWN

Sheet No. S-102

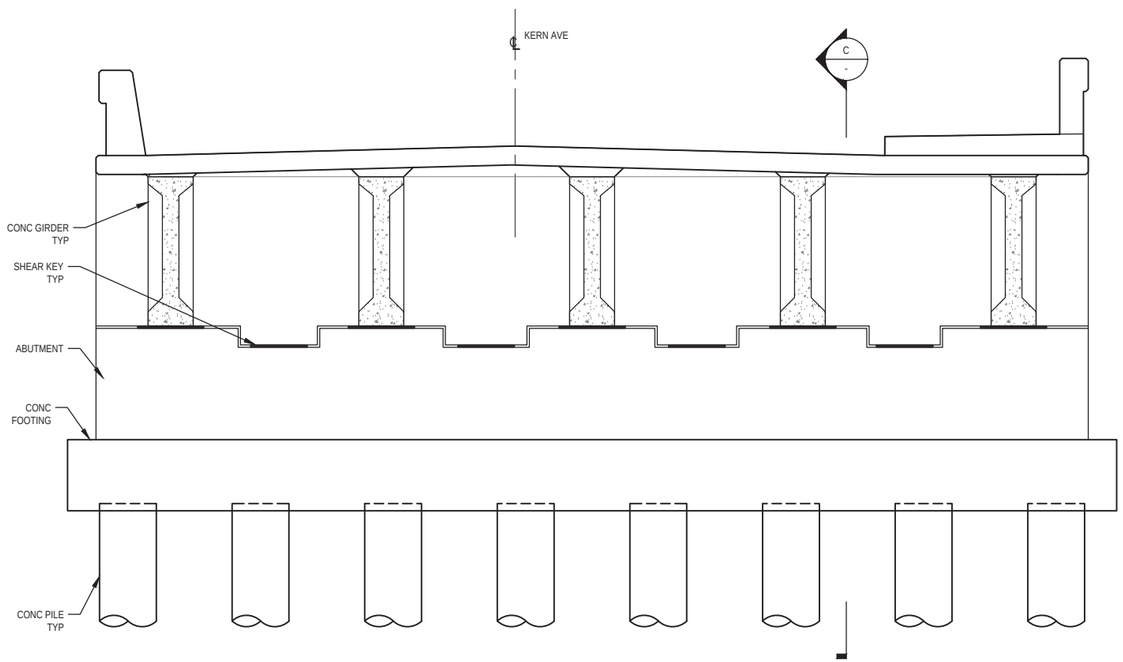
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B TYPICAL SECTION

SCALE: 3/8"=1'-0"

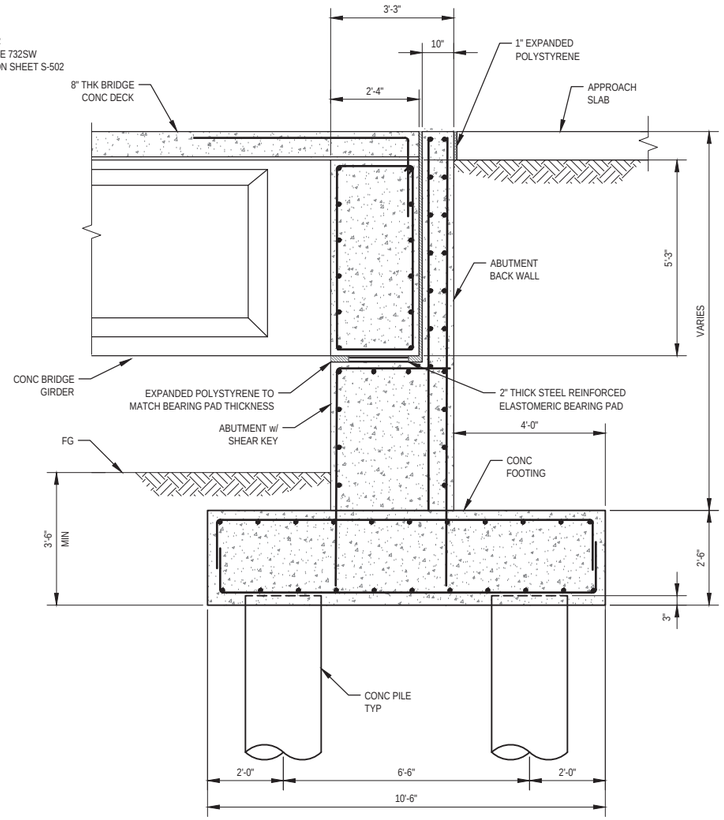
0 2' 4' 6'



A ABUTMENT ELEVATION

SCALE: 3/8"=1'-0"

0 2' 4' 6'



C ABUTMENT SECTION

SCALE: 1/2"=1'-0"

0 1' 2' 4'

SHEET GENERAL NOTES

1. PLACE BACKFILL EQUALLY IN FRONT AND BEHIND ABUTMENT UNTIL THE FG ELEVATION IN FRONT IS REACHED, THEN BACKFILL BEHIND ABUTMENT TO WITHIN 12" OF ABUTMENT SEAT BEFORE ERECTING THE PC/PS CONCRETE GIRDERS.
2. NO SPLICES PERMITTED IN MAIN ABUTMENT REINFORCEMENT.

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Project CAMP SLO BRIDGE 3 REPLACEMENT

Title SECTIONS

Size ANSI D

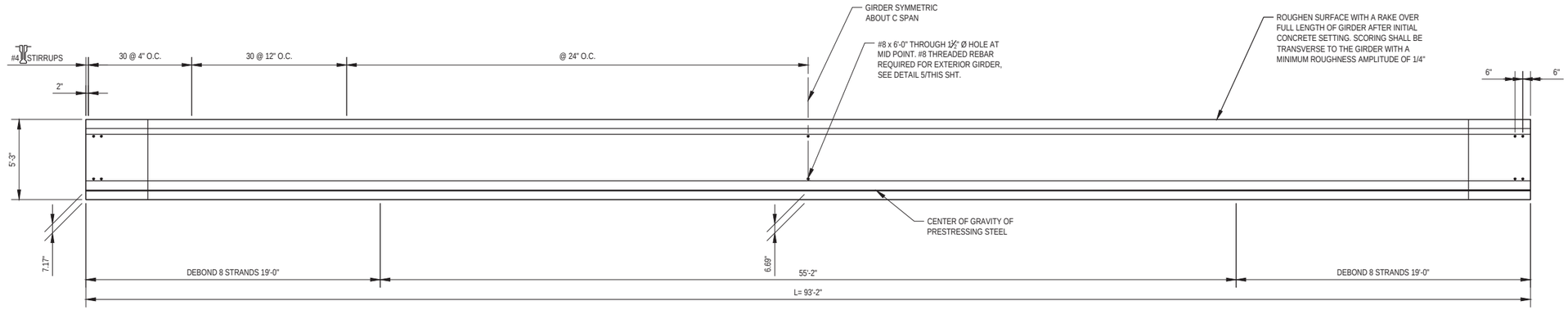
Project No. 12562944

Date 7-29-2022

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Sheet No. S-301

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1 ELEVATION

SCALE: 1/4"=1'-0"

PRESTRESSING NOTES

PRESTRESSED GIRDER CONCRETE STRENGTH:

INITIAL STRENGTH AT TRANSFER	f'ci= 4,000 PSI
28-DAY STRENGTH	f'c= 5,000 PSI

GIRDER CONCRETE ELASTIC MODULUS

FINAL ELASTIC MODULUS	Ec = 4,287 KSI
ELASTIC MODULUS AT TRANSFER	Eci = 3,384 KSI

REINFORCING STEEL

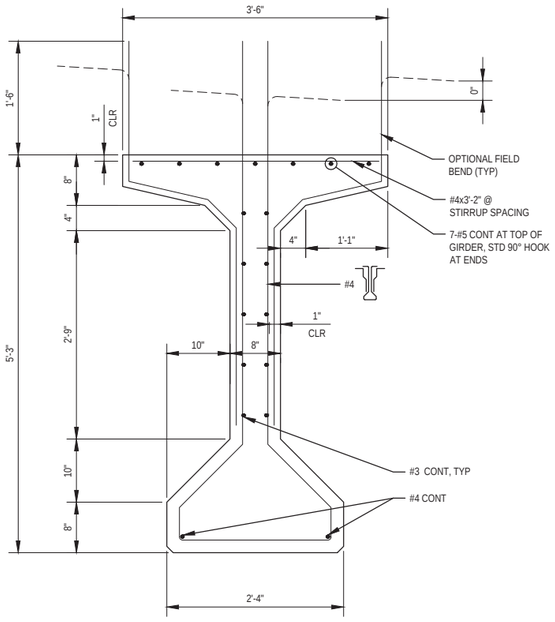
YIELD STRENGTH	fy = 60,000 PSI

STEEL PRESTRESSING STRANDS

1/2" DIAMETER LOW RELAXATION STRANDS, GRADE 270

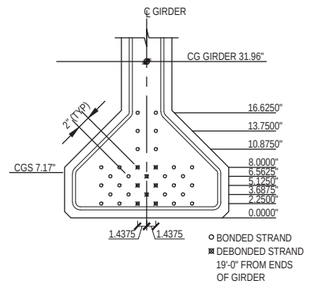
STRAND AREA	Aps = 0.153 IN^2
ULTIMATE STRENGTH	fpu = 270 KSI
YIELD STRENGTH	fy = 0.9 fpu = 243 KSI
PRESTRESSING STEEL MODULUS	Eps = 28,500 KSI
WORKING FORCE AFTER LOSSES	Pw = 863.8 KIPS

SCREED LINE ELEVATIONS FOR DECK CONCRETE WILL BE DETERMINED BY THE ENGINEER.



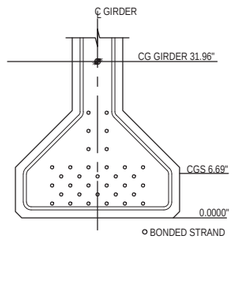
2 AASHTO TYPE V GIRDER

SCALE: 1"=1'-0"



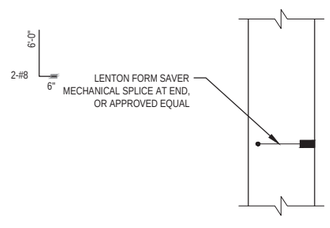
3 STRAND PATTERN AT END

SCALE: 1"=1'-0"



4 STRAND PATTERN AT 19'-0"

SCALE: 1"=1'-0"



5 INSERT DETAIL

SCALE: 1 1/2"=1'-0"

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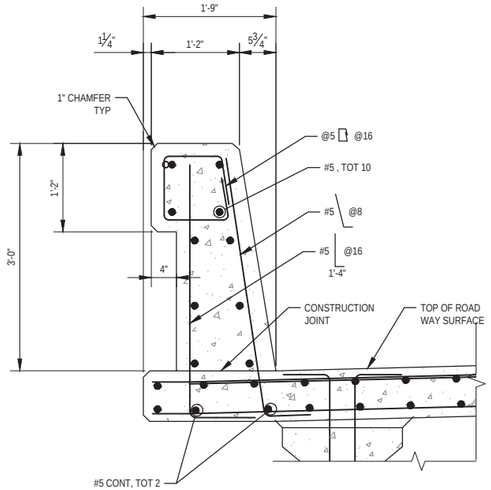
Title PRECAST I GIRDER DETAILS

Size ANSI D

Project No.	Date	Scale
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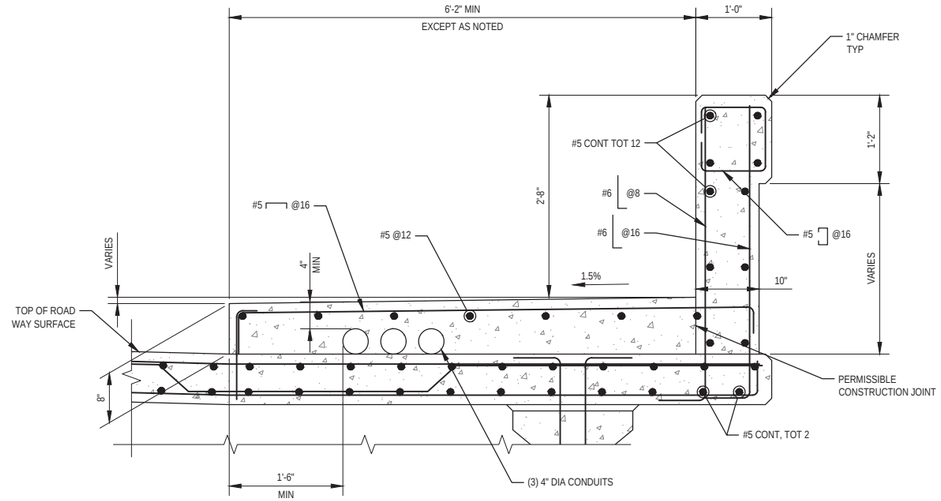
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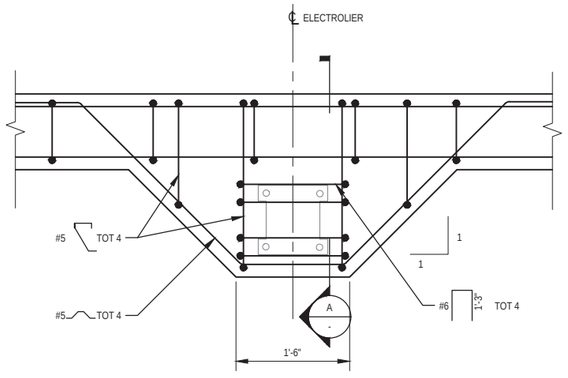
1 CALTRANS TYPE 836 BARRIER

SCALE: 1"=1'-0"

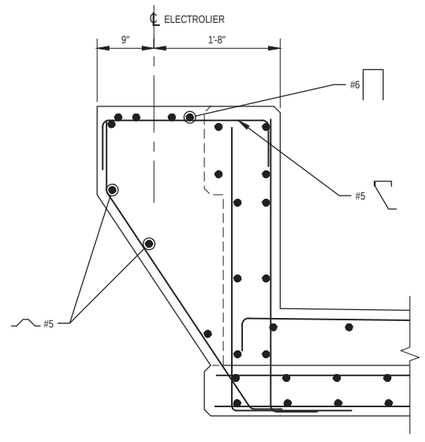


2 CALTRANS TYPE 732SW BARRIER

SCALE: 1"=1'-0"



PEDESTAL PLAN



SECTION A

3 CALTRANS ELECTROLIER PEDESTAL

SCALE: 1"=1'-0"

GENERAL SHEET NOTES

1. THE CALTRANS TERMINOLOGY "ELECTROLIERS" IS USED INTERCHANGEABLY WITH THE TERMINOLOGY "LIGHT FIXTURES."

65% SUBMITTAL

No.	Issue	Checked	Approved	Date
Author	DS	Drafting Check	MJ	Project Manager	MATT WEBER
Designer	MJ	Design Check	JP	Project Director	TONY PETROCCITTO

Bar is one inch on original size sheet

0 1"

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Client CALIFORNIA MILITARY DEPARTMENT

Project CAMP SLO BRIDGE 3 REPLACEMENT

Title CONCRETE BARRIER AND ELECTROLIER PEDESTAL DETAILS

Size ANSI D

Project No.	Date	Scale
12562944	7-29-2022	AS SHOWN

Sheet No. S-502

Plot Date: 29 July 2022 - 10:35 AM Plotted By: James Pan Filename: \\ghdnet\ghd\US\Roseville\Projects\561\12562944\Digital_Design\ST\AutoCAD\Sheets\12562944-GHD-00-00-BRG-ST-D502.dwg

Appendix F

Public and Agency Review

Public and Agency Review

CMD, serving as the CEQA Lead Agency, prepared a Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Camp San Luis Obispo Vehicular Bridge Replacement Project. CEQA requires a 30-day public review period for the Draft IS/MND document. The public comment period allows public agencies and interested parties the opportunity to review and comment on the document.

The Draft IS/MND was released for public comment on **June 8, 2023**, and the review period closed on **July 7, 2023**. In accordance with the requirements of CEQA, CMD provided a Notice of Intent (NOI) to adopt a Mitigated Negative Declaration to the public, responsible agencies, and the San Luis Obispo County Clerk. CMD published a notice in The Tribune (a newspaper of general circulation in the area affected by the proposed Project). The Draft IS/MND was submitted to the State Clearinghouse for review by state agencies, and to responsible and trustee agencies with jurisdiction by law over resources affected by the Project. The Draft IS/MND was made available for public review at https://ceqanet.opr.ca.gov/2023060276 and the Camp San Luis Obispo Environmental Office, Camp San Luis Obispo, 10 Sonoma Ave, Building 1300, Camp San Luis Obispo, CA 93405.

CEQA Guidelines Section 15074(b) states that prior to approving a Project, the Lead Agency must consider the proposed IS/MND together with any comments received during the public review process. However, at the end of the 30-day public review period, no comments were received.

Based on the evaluation in the IS/MND, CMD, as Lead Agency, has determined that all potential environmental impacts associated with the Project are less than significant with incorporation of identified mitigation measures. A Mitigation Monitoring Program has also been prepared and will be implemented for the Project. Therefore, CMD has determined that a Mitigated Negative Declaration in accordance with CEQA is the appropriate environmental document for the Project.