Initial Study/ Proposed Mitigated Negative Declaration

for the

Crosby Herold Bridge (19C-0111) Replacement over Doty Ravine

August 2019

Placer County
Department of Public Works
3091 County Center Drive, Suite 220
Auburn, CA 95603

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Appendices

1. Project Information

1. Project Title:

Crosby Herold Bridge Replacement over Doty Ravine

2. Lead Agency Name and Address:

Placer County, Department of Public Works
3091 County Center Drive, Suite 220
Auburn, CA 95603

3. Contact Person and Phone Number:

Ms. Jean Hanson, Associate Civil Engineer
530-745-7553
JHanson@placer.ca.gov

4. Project Location:

The Crosby Herold Bridge Replacement over Doty Ravine (Project) is located along Crosby Herold Road, northeast of the City of Lincoln in an unincorporated area of central Placer County (Figure 1, Figure 2). The Project is located on the Gold Hill USGS topographic quadrangle (quad) (T13N, R7E, Section 31) and is in the Upper Coon-Upper Auburn Hydrologic Unit (hydrologic unit code 18020161). Elevation in the Project area ranges from approximately 230 to 260 feet above sea level.

The approximately 9.43-acre Project study area includes approximately 0.4 mile of Crosby Herold Road north and south of the bridge over Doty Ravine, the road shoulders, and the adjacent right-of-way. Doty Ravine flows west through the center of the Project area. Parcels in the Project area are listed under item 6 below.

5. Description of Project:

Placer County Department of Public Works, in conjunction with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), intends to replace the existing Crosby Herold Road Bridge over Doty Ravine (19C-0111). The longer, wider, single-span bridge will improve roadway safety and be consistent with Placer County's standards, policies and procedures, the American Association of State Highway and Transportation Officials (AASHTO) guidelines, and Caltrans guidelines.

The existing Crosby Herold Road Bridge is a 17-ft wide, 40-ft long, single-span concrete-encased I-beam bridge with reinforced concrete abutment walls that was constructed in 1945. The bridge has a sufficiency rating of 62.1 and is load rated for legal loads only; no permit loads are allowed as shown in the 8 April 2015 routine bridge inspection report. The bridge deck provides width for one lane of traffic and is substandard because the approach roadway provides two lanes of opposing traffic and a roadway speed limit of 55 miles per hour. This bridge has a history of scour issues and repairs; therefore, it is a scour critical bridge. In addition, the bridge opening does not have adequate capacity to convey the design hydraulic events and overtopping of the southern roadway approach occurs during the 100-year event. The bridge must be replaced because it cannot be rehabilitated cost-

effectively due to the age, type of structure, and alignment of the approach roadway. Construction of the proposed bridge is planned to commence in 2020 or later.

6. General plan designation:

Placer County Assessor's Parcel Number (APN)	General Plan Land Use Designation	Zoning Designation	Williamson Act Contract Status
020-167-032	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
020-167-068	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
020-167-067	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
026-141-027	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
026-390-001	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
026-390-021	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled

7. Zoning:

See table above.

8. Surrounding Land Uses and Setting:

The Project is located in a rural residential area and is bound by a residence and associated barn and corral to the southeast, irrigated pasture to the southwest, large-lot residences to the northwest, and oak woodland and an abandoned olive grove to the northeast.

9. Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement):

The Project requires permits or approvals from the following:

- Caltrans — National Environmental Policy Act (NEPA) Categorical Exclusion
- U.S. Army Corps of Engineers — Section 404 Clean Water Act Nationwide Permit
- Central Valley Regional Water Quality Control Board — Section 401 Water Quality Certification
- State Water Resources Control Board – Section 402 NPDES Construction General Permit
- California Department of Fish and Wildlife — Streambed Alteration Agreement
- Placer County Air Pollution Control District — Fugitive Dust Plan Approval
- California Air Resources Board — Asbestos NESHAP Notification Of Demolition & Renovation

2. Introduction

Placer County Department of Public Works, in conjunction with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), intends to replace the existing Crosby Herold Road Bridge over Doty Ravine (19C-0111). The longer, wider, single-span bridge will improve roadway safety and be consistent with Placer County's standards, policies and procedures, the American Association of State Highway and Transportation Officials (AASHTO) guidelines, and Caltrans guidelines.

Placer County is the local lead agency and prepared this Initial Study to consider the significance of potential project impacts pursuant to the California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code, Section 21000, et seq.). This Initial Study was prepared in accordance with the State CEQA Guidelines (14 California Administrative Code, Section 14000 et seq.).

Based on the results of this Initial Study, the County has determined that the Project would have less than significant impacts on the environment with the incorporation of mitigation measures. The County may approve the Project with the certification of a Mitigated Negative Declaration (MND).

The remainder of this document is organized into the following sections:

- **Section 3, Project Description:** Provides a detailed description of the proposed Project;
- **Section 4, Initial Study Checklist and Supporting Documentation:** Provides CEQA Initial Study Resource impact checklists and supporting documentation. Identifies the thresholds of significance, evaluates potential impacts, and describes mitigation necessary to reduce impact significance;
- **Section 5, Determination, Environmental Factors Potentially Affected:** Provides a determination of the County's CEQA findings;
- **Section 6, Supporting Information Sources:** Identifies the personnel responsible for the preparation of this document and provides a list of the references cited throughout the document.
- **Appendix A, Mitigation Monitoring and Reporting Plan**: Contains the Mitigation Monitoring and Reporting Plan prepared for the proposed project. The Mitigation Monitoring and Reporting Plan includes a list of required mitigation measures and includes information regarding the County's policies and procedures for implementation and monitoring of the mitigation measures.

3. Project Description

3.1 Location

The Crosby Herold Bridge Replacement over Doty Ravine (Project) is located along Crosby Herold Road, northeast of the City of Lincoln in an unincorporated area of central Placer County (Figures 1 and 2). The Project is located on the Gold Hill USGS topographic quadrangle (quad) (T13N, R7E, Section 31) and is in the Upper Coon-Upper Auburn Hydrologic Unit (hydrologic unit code 18020161). Elevation in the Project area ranges from approximately 230 to 260 feet above sea level.

The approximately 9.43-acre Project study area includes approximately 0.4 mile of Crosby Herold Road north and south of the bridge over Doty Ravine, the road shoulders, and the adjacent right-of-way. Doty Ravine flows west through the center of the Project area.

3.2 Project History

The existing Crosby Herold Road Bridge is a 17-ft wide, 40-ft long, single-span concrete-encased I-beam bridge with reinforced concrete abutment walls that was constructed in 1945. The bridge has a sufficiency rating of 62.1 and is load rated for legal loads only; no permit loads are allowed as shown in the 8 April 2015 routine bridge inspection report. The bridge deck provides width for one lane of traffic and is substandard because the approach roadway provides two lanes of opposing traffic and a roadway speed limit of 55 miles per hour. This bridge has a history of scour issues and repairs; therefore, it is a scour critical bridge. In addition, the bridge opening does not have adequate capacity to convey the design hydraulic events and overtopping of the southern roadway approach occurs during the 100-year event.

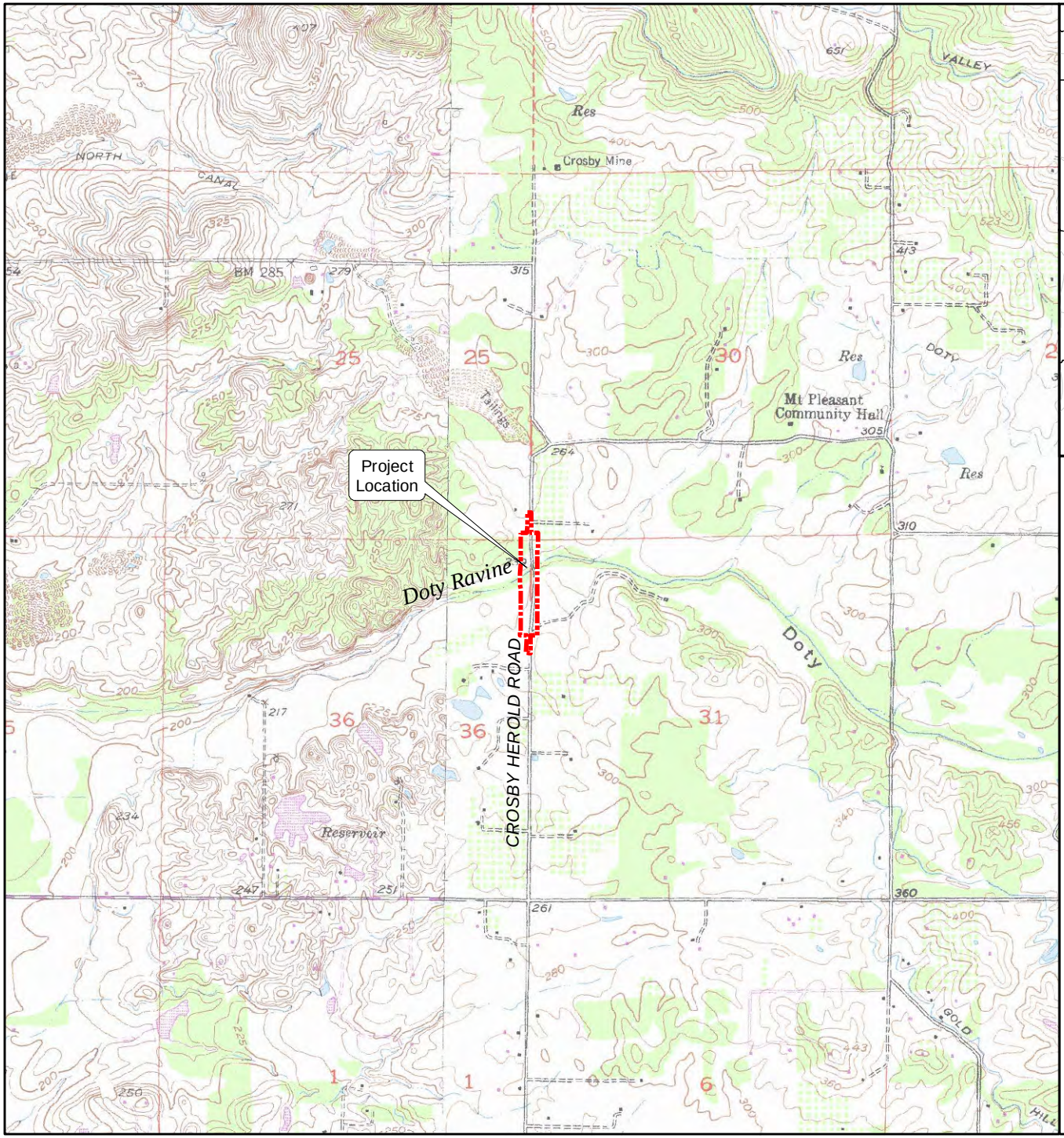
3.3 Project Purpose and Objectives

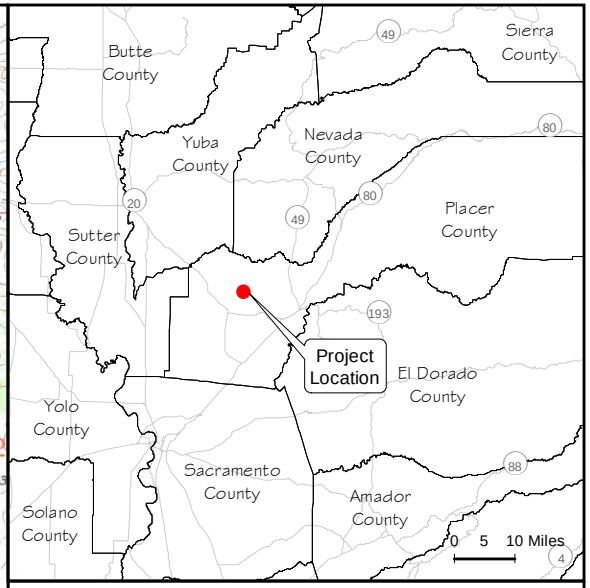
The purpose of the Project is to replace the existing Crosby Herold Bridge over Doty Ravine. The bridge must be replaced because it cannot be rehabilitated cost-effectively due to the age, type of structure, and alignment of the approach roadway. Project objectives include improving roadway safety, providing adequate freeboard to pass the 100-year storm event, improving traffic flow, compliance with the Placer County's standards, policies and procedures, the American Association of State Highway and Transportation Officials (AASHTO) guidelines, and Caltrans guidelines.

3.4 Project Description

Placer County Department of Public Works, in conjunction with the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), intends to replace the existing bridge with a wider, longer, single-span bridge on a similar alignment (Figure 3). The bridge will be either a cast-in-place post-tensioned box girder bridge or a precast girder bridge.

The new bridge will be approximately 90 feet long and 35 feet wide, with two 12-ft wide traffic lanes and two 4-ft wide shoulders. The bridge will be supported on seat type abutments founded on spread footings with wing walls at the south abutment and a combination of return wall and retaining walls at the north abutment. No pile driving will be necessary. Placement of RSP in front of the new abutments is not anticipated.





Crosby Herold Bridge Replacement
over Doty Ravine
Placer County, CA
18 May 2017

Figure 1. Location Map

Project Location

2,000 1,000 0 2,000 Feet

Scale: 1 inch = 2,000 feet

N

Golden Hill, CA (Photorevised 1973) &
Lincoln, CA (Photorevised 1981)
USGS 7.5' Quadrangle DRG
CASIL California Digital Raster Graphics,
7.5 Minute (C) Series, Albers Nad83 Mosaics (MrSID)
o_nw0202.sid

13092CrosbyHeroldRdBrdgDotyRavine_Fig1LocationMap.mxd

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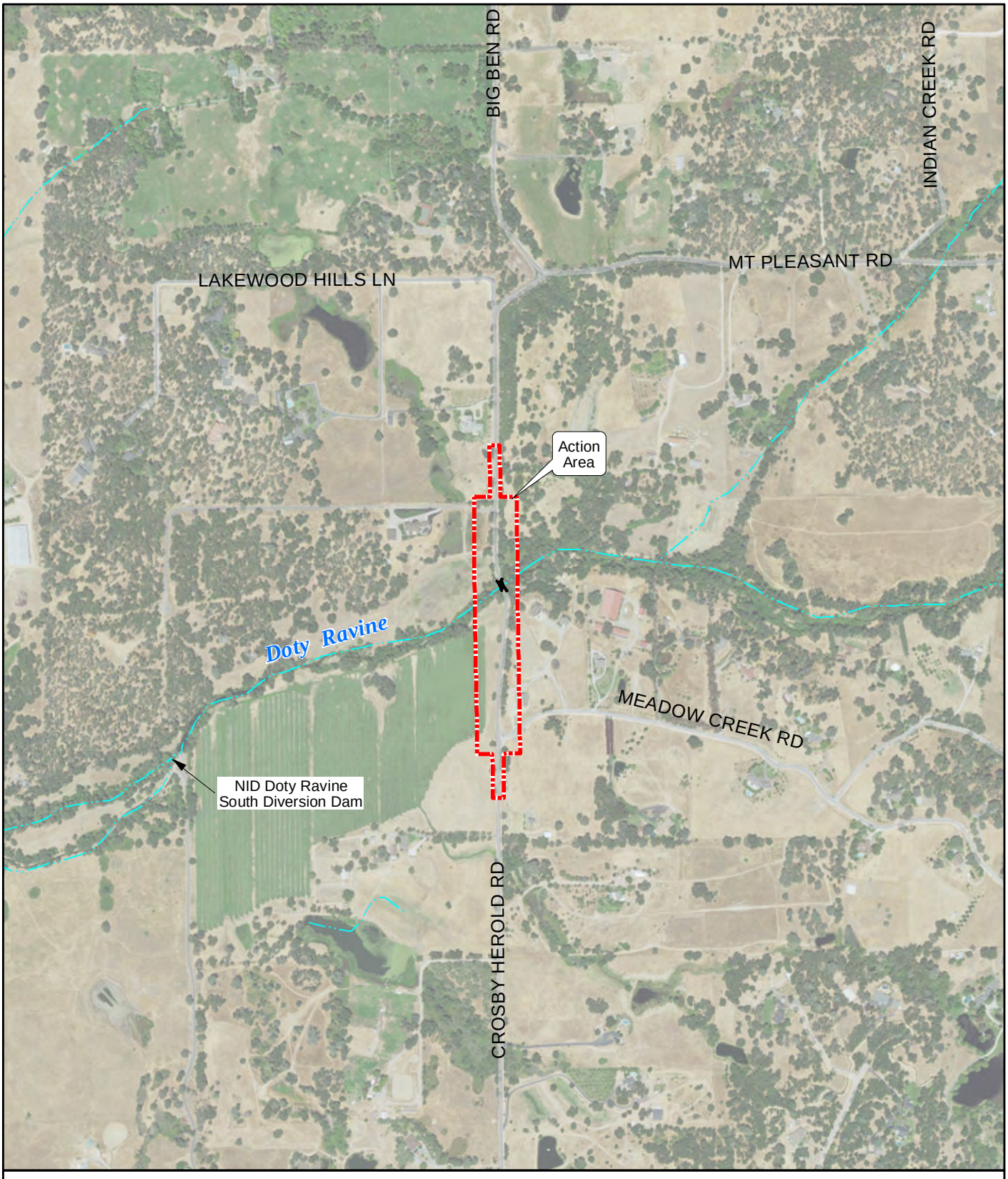

Crosby Herold Bridge Replacement
over Doty Ravine
Placer County, CA
18 May 2017

Action Area
NHD Flow lines

800 400 0 800 Feet

N

Scale: 1 inch = 800 feet

Aerial Photograph: 13 July 2014
NAIP2014 USDA FSA Imagery
ESRI ArcGIS Basemap Layer

Figure 2. Aerial Photograph

13092CrosbyHeroldRdBrdgDotyRavine_BAFig2AerialPhoto.mxd

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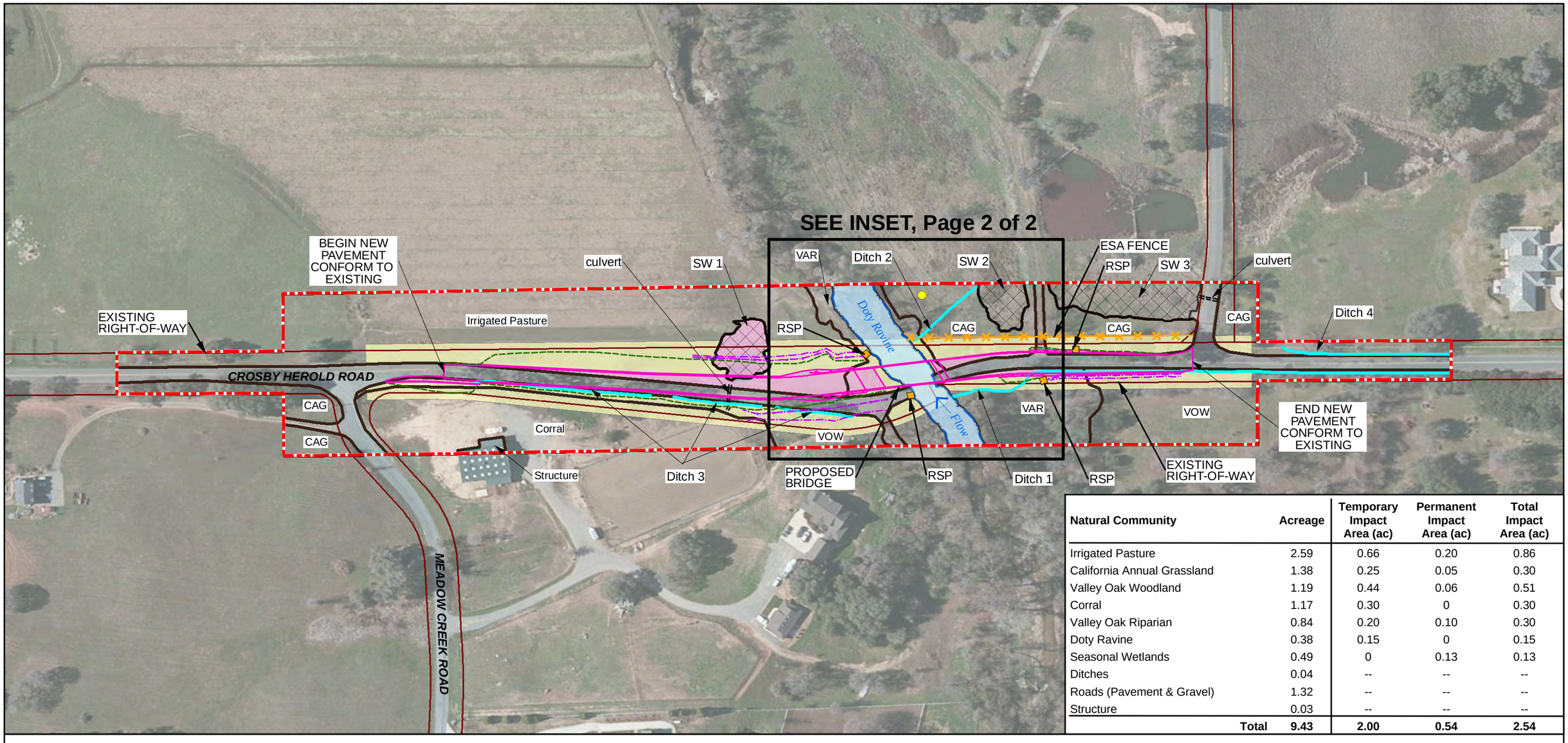

Natural Community	Acreage	Temporary Impact Area (ac)	Permanent Impact Area (ac)	Total Impact Area (ac)
Irrigated Pasture	2.59	0.66	0.20	0.86
California Annual Grassland	1.38	0.25	0.05	0.30
Valley Oak Woodland	1.19	0.44	0.06	0.51
Corral	1.17	0.30	0	0.30
Valley Oak Riparian	0.84	0.20	0.10	0.30
Doty Ravine	0.38	0.15	0	0.15
Seasonal Wetlands	0.49	0	0.13	0.13
Ditches	0.04	--	--	--
Roads (Pavement & Gravel)	1.32	--	--	--
Structure	0.03	--	--	--
Total	**9.43**	**2.00**	**0.54**	**2.54**

Crosby Herold Bridge Replacement
over Doty Ravine
Placer County, CA
18 May2017

Figure 3. Proposed Project Map
Page 1 of 2

- Action Area
- Biological Community Boundary
- Doty Ravine
- Seasonal Wetland (SW)
- Existing Ditch
- Elderberry Shrub (EB)
- Culvert
- Existing Right-of-way
- Proposed Road and Bridge Improvements
- Limits of Grading
- Proposed Ditch
- Rock Slope Protection (RSP)
- ESA Fence
- Permanent Impacts
- Temporary Impacts

150 112.5 75 37.5 0 150 Feet

Scale: 1 inch = 150 feet

Layout: Crosby Herold Road Bridge Replacement Project 35% Plans
Cad File: 489169_Base.dwg (Recv'd: 12 Oct. 2016)
Aerial Photograph: 13 July 2014, 2014NAIP, USDA FSA Imagery,
ESRI Arcmap Basemap Service Layer
Basemap Layers: Placer County GIS Parcel and Road datasets

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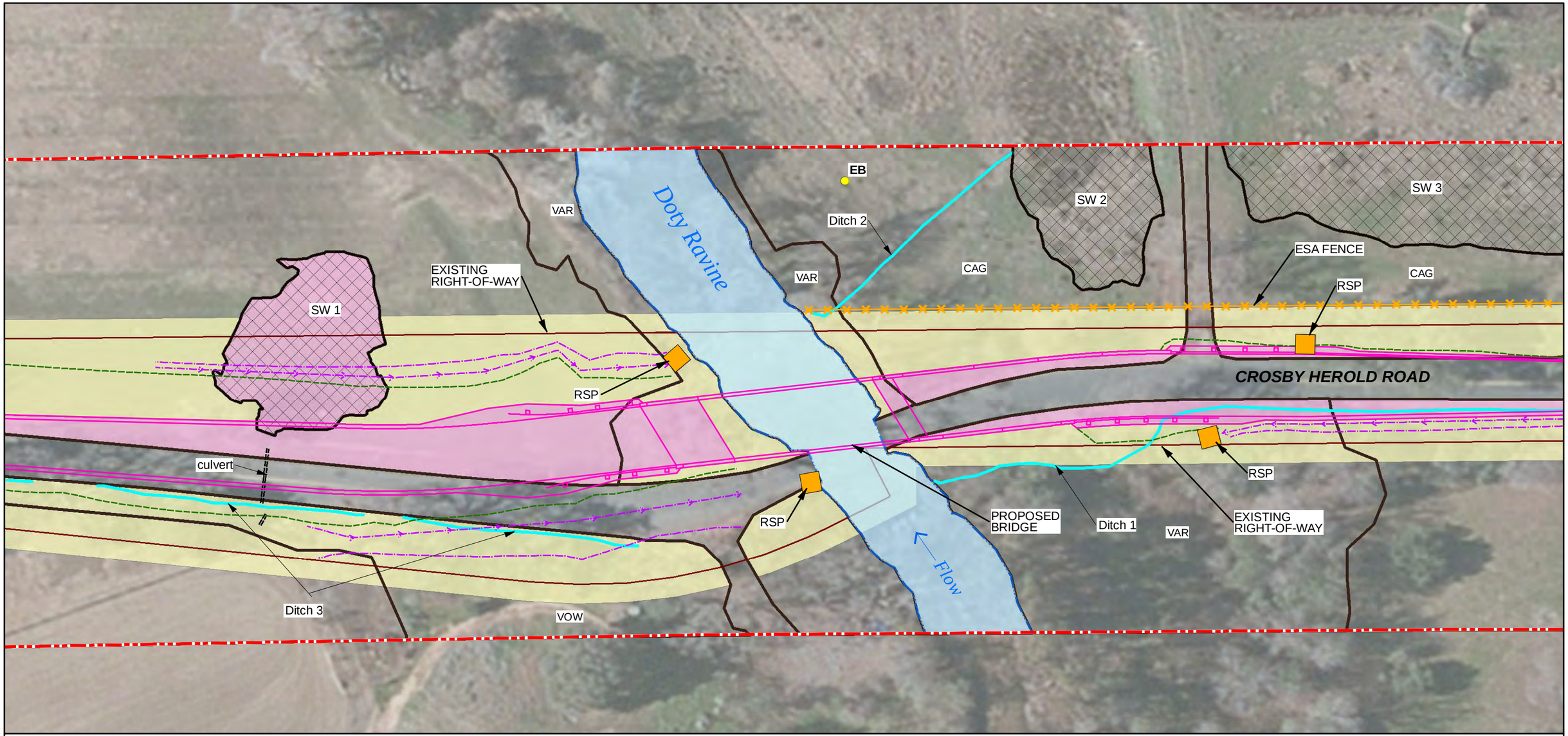

Crosby Herold Bridge Replacement
over Doty Ravine
Placer County, CA
18 May 2017

Figure 3. Proposed Project Map
INSET, Page 2 of 2

- Action Area
- Biological Community Boundary
- Doty Ravine
- Seasonal Wetland (SW)
- Existing Ditch
- Elderberry Shrub (EB)
- Culvert
- Existing Right-of-way
- Proposed Road and Bridge Improvements
- Limits of Grading
- Proposed Ditch
- Rock Slope Protection (RSP)
- ESA Fence
- Permanent Impacts
- Temporary Impacts

50 40 30 20 10 0 50 Feet

N

Scale: 1 inch = 50 feet

Layout: Crosby Herold Road Bridge Replacement Project 35% Plans
Cad File: 489169_Base.dwg (Recv'd: 12 Oct. 2016)
Aerial Photograph: 13 July 2014, 2014NAIP, USDA FSA Imagery,
ESRI Arcmap Basemap Service Layer
Basemap Layers: Placer County GIS Parcel and Road datasets

Date: 4/7/2017 File: 13092CrosbyHeroldRdBrdgDotyRavine_BAFig3ProjectMap_v3_pg2Inset.mxd

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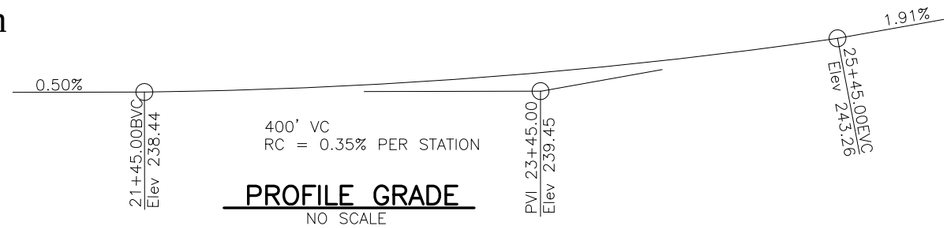
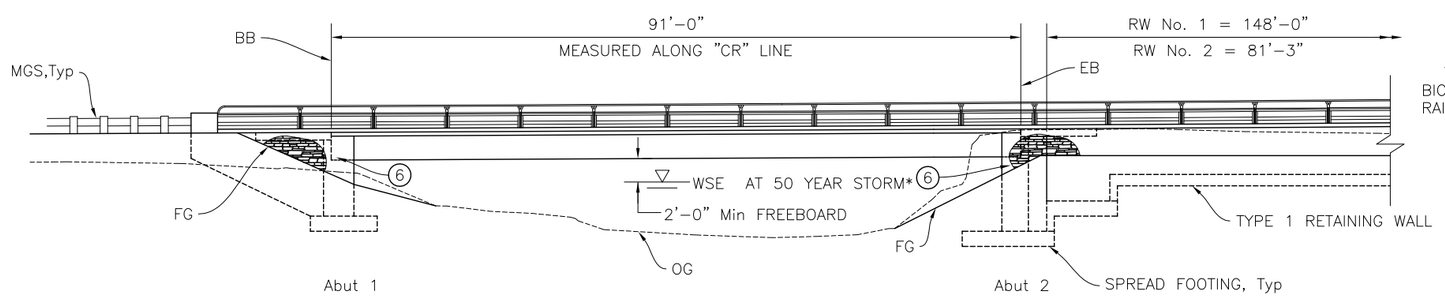
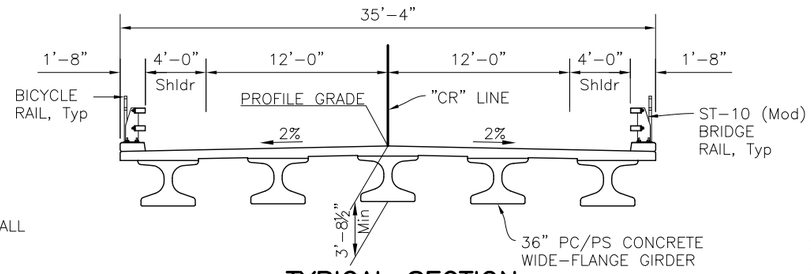
Figure 4. General Plan



PROFILE GRADE
NO SCALE



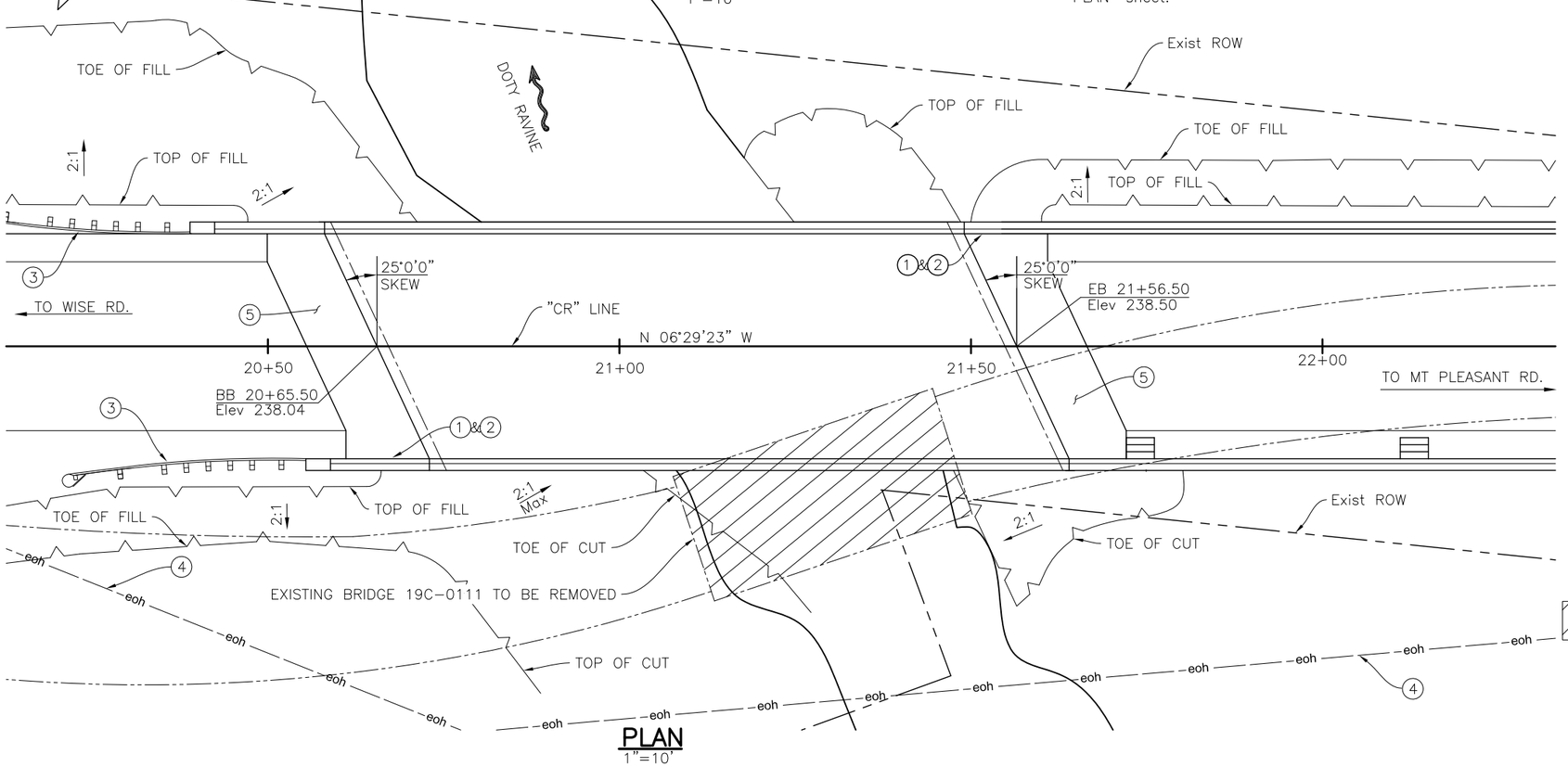


TYPICAL SECTION
1"=5'

DATUM Elev 210.00
20+50 21+00 21+50 22+00

* See "HYDROLOGIC / HYDRAULIC DATA SUMMARY" on "FOUNDATION PLAN" sheet.

ELEVATION
1"=10'



PLAN
1"=10'

INDEX TO PLANS

LEGEND:

1. PAINT "DOTY RAVINE BR"
2. PAINT BRIDGE NO. AND YEAR CONSTRUCTED
3. MGS
4. OVERHEAD UTILITIES (TO BE RELOCATED BY OTHERS)
5. APPROACH SLAB TYPE EQ (10)
6. ARCHITECTURAL TREATMENT ABUTMENTS AND APPROACH WALLS

INDICATES BRIDGE REMOVAL

NOTES:
1. Stream diversion required for bridge removal and abutment construction.
2. Traffic to be detoured away from site during construction. See "DETOUR PLAN" sheet.

RECORD DRAWINGS NOTE
INITIALS DATE

ch2m:
2485 Natomas Park Drive, Suite 600
Sacramento, CA 95833

65% SUBMITTAL

No.	Revision	Description	Date	Approved

PRELIMINARY – NOT FOR CONSTRUCTION

CROSBY HEROLD BRIDGE REPLACEMENT
PROJECT OVER DOTY RAVINE
GENERAL PLAN

DEPARTMENT OF PUBLIC WORKS
PLACER COUNTY CALIFORNIA

DATE: 10/27/2017
DESIGN: JPL
DRAW: PW
CHECK: MN

REGISTERED PROFESSIONAL ENGINEER
JOHN P. LOOMIS
NO. C87442
EXP. 9/30/2019
CIVIL
STATE OF CALIFORNIA

DATE: –

CONSTRUCTION CONTRACT NO.
–
PROJECT NO.
PC 2972
SCALE
HORIZ:
VERT:
SCALE REFERENCE
0 1"
DRAWING
S01
SHEET NO.
30 of 47

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The road approaches will be widened to a pavement width of up to 32 feet, which includes two 12-ft lanes and two 4-ft maximum paved shoulders. The horizontal alignment of the road approaches will match the existing as closely as possible while using a 40 mile per hour design speed. The new bridge deck will be approximately four feet higher than the existing bridge deck to provide adequate freeboard to pass the 50-year event with two feet of freeboard and the 100-year flow event. The roadway ties back into the existing roadway approximately 400 feet north of the new bridge. The southern approach will tie into the existing roadway approximately 760 feet from the south end of the bridge.

Approximately 160 feet northwest of the bridge is a dirt, private driveway to a house at 3625 Crosby Herold Road. The driveway formerly provided access from Crosby Herold Road to a house that was demolished sometime between late summer of 2004 and summer of 2005. By February 2008, a new, paved private driveway had been constructed approximately 425 feet north of the bridge. The private driveway provides access to 3625 and 3735 Crosby Herold Road and extends west to serve two other parcels between 3625 and 3735 Crosby Herold Road. The paved private driveway is currently the main entrance to 3625 Crosby Herold Road. The proposed bridge project may require the closure of the dirt entrance.

The Crosby Herold Road at *Doty Ravine Bridge Replacement Project – Roadway Drainage Technical Memorandum* prepared by CH2M Hill (2017) analyses the roadway drainage characteristics of the existing and proposed facilities. The Small Watersheds Method described in Section V-E, Hydrology Runoff Computation, of the Placer County Storm Water Management Manual (SWMM) dated September 1, 1990 was used to calculate the peak flows for the 10-year, 25-year and 100-year storm events. Ten-year design storm peak flows were used to size the roadside ditches, and evaluate the onsite drainage facilities. The Small Watersheds Method is appropriate for determining peak runoff from basins of up to 200 acres. The memo concludes that all proposed ditches, inlets, gutters, scuppers, and storm drain pipes were evaluated against the criteria in the SWMM and the Placer County Land Development Manual (LDM) and found to be consistent. Drainage patterns will not substantially change from the pre- to post-project conditions. There are no anticipated impacts to upstream or downstream properties as a result of this project.

Roadside drainage will be captured in overside drains on the roadway approaches, directing the flow away from the bridge. Drains will empty into RSP pads to prevent creek bank erosion and channel scour from roadside runoff. No RSP will be placed below the OHWM of Doty Ravine. Drainage from the bridge deck will be discharged through a series of scuppers that will outfall directly into Doty Ravine. In order to keep road runoff within the right-of-way, the roadside ditch northeast of the bridge will be put in a pipe starting approximately 130 feet north of the bridge. Project roadway drainage components are discussed generally below:

- **Roadside ditches** were sized to carry the 10-year design storm with natural grass lining. All ditches have a minimum freeboard of approximately 0.2-feet during the 10-year event.
- **Gutters:** All gutters on the project comply with the SWMM criteria for the 10-year, 25-year and 100-year events.
- **Inlets:** The project has five proposed inlets. The inlets comply with the SWMM criteria for the 10-year event.

- **Scuppers:** Drainage on the bridge deck will be provided by scuppers. The proposed scuppers will be 2-inches tall, and 12-inches long and be placed at 10-feet on center on both sides of the bridge.
- **Culverts and Storm Drain Pipes: Culverts and Storm Drain Pipes:** The Project has one existing culvert, one proposed culvert replacement, and multiple proposed storm drain pipes. The Project will replace the existing 12-inch corrugated metal pipe (CMP) cross culvert that drains runoff from the roadway surface and offsite runoff from the hillside to the east and an adjacent private parcel with a single 42-inch reinforced concrete pipe (RCP) culvert at a grade of 1.0%. The project also proposes installation of a network of 12-inch RCP storm drain pipes, grated drainage inlets, and storm drain manholes (SDMH) as part of the drainage system north of the bridge. The storm drain pipes are located based on guidelines in the LDM.

The bridge barrier will consist of either a Caltrans Type ST-10 (Modified) style steel bridge barrier with modifications for bicycle railing, or a Caltrans Type 80 (Modified) style concrete post and beam barrier with modifications for bicycle railing. Openings in the bicycle railing will conform to the AASHTO Section 13 requirements of a minimum height of 42 inches (in.), that "…a 6.0 in. diameter sphere shall not pass through" the lower 27 in. of the railing, and "…a 8.0-in. diameter sphere shall not pass through" the upper portion. Midwest Guardrails System (MGS) will be installed on all four corners of the bridge. On the southwest and southeast corners, the MGS will extend south approximately 75 feet. On the north side of the bridge, the same bridge rail that is on the bridge will be installed on top of the retaining wall. On the northwest corner of the bridge, the barrier rail will extend north approximately 150 feet. On the northeast corner of the bridge, the barrier rail will extend north 79 feet. Approximately 75 feet of MGS will be installed beyond the end of the barrier rail. The roadway side slopes will have a 2:1 slope throughout the project limits. The typical maintenance of the new bridge would be limited to repairing the barrier/railing system after vehicular strikes, periodic repainting of the bicycle railing, and replacing the joint seals approximately every 25 years.

The soffit elevation of the existing bridge is approximately 10 feet above the channel bed. The proposed bridge will have a soffit elevation approximately 14 feet above the channel bed, resulting in a bridge soffit height that is 2 feet above the 50-year flood water surface elevation of the creek and will pass the 100-year flood to comply with AASHTO and Caltrans freeboard requirements. The Central Valley Flood Protection Board (CVFPB) verified that Doty Ravine is not considered a regulated stream and does not need an encroachment permit from the CVFPB.

Within the limits of the Project, the existing road centerline will be realigned to provide for a slight reversing curve that meets a 40-mph design speed. The Project will have a net import of approximately 1,400 cubic yards of fill material.

Demolition of the existing bridge will consist of clearing and grubbing, including tree removal, to accommodate the wider bridge. Construction of the new bridge will include excavation for the new bridge abutments and drainage swales where required. Within the project limits, the road will be resurfaced with hot mix asphalt on both the approaches. The new bridge abutments will be located within the road prism behind the existing abutments (i.e. further away from the creek channel). The existing abutments will be removed to a depth of approximately 2 feet below the channel bottom and the void backfilled with river rock. The adjacent banks will be recontoured. The depth of excavation for

relocation of the drainage ditches is expected to range from 2 to 4 feet. The maximum depth of excavation for the new bridge abutments is expected to range from 8 to 10 feet.

Removal of the existing bridge foundations and construction of the new bridge foundations will require construction equipment to access the Doty Ravine creek bed and may require partial diversion of the creek. The diversion would allow flows to pass through the existing channel under the bridge while maintaining water quality in the ravine. An open channel diversion will be used during construction to minimize impacts to fish. If a cast-in-place bridge is constructed, there will likely be falsework supports on the channel banks during bridge construction. The falsework supports will be placed behind any temporary diversion. Protection over the channel would be required to prevent debris from falling in to the ravine.

Groundwater and seepage may be encountered during construction, especially in the excavations for the foundations and footings. For dewatering operations, the project will develop a dewatering plan in accordance with the Caltrans Construction Site Best Management Practices Manual's NS-02 Dewatering Operations. NS-02 requires that a dewatering plan will be included as part of the SWPPP. The dewatering plan will detail the location of dewatering activities, equipment, and discharge point(s). Sediment controls and other BMPs will be identified in the plan to ensure that discharges are consistent with the terms of the NPDES permit.

The Project segment of Crosby Herold Road will be closed to through traffic during construction. An approximately 5.5-mile detour will be established on Wise Road, Garden Bar Road, Mt. Pleasant Road. Materials and equipment that will be used for the construction of the bridge will be staged on Crosby Herold Road within the Project area.

There are no utilities currently carried by the existing bridge. There are overhead utility lines crossing Doty Ravine. The existing lines may be relocated onto the new bridge or remain overhead on poles. If the lines are relocated onto the new bridge, they will be placed inside the bridge cells.

An equestrian trail access occurs on the southeast side of the bridge and is currently gated. A new fence and gate access will be negotiated with the property owner. It is expected that the Project will require temporary construction easements or rights of entry. The County does not anticipate permanent right-of-way acquisition at this time.

Best management practices (BMPs) will be implemented during construction to prevent concrete or other materials from entering Doty Ravine. General bridge construction equipment expected to be used includes, but is not limited to: haul trucks, cranes, excavators, gradalls, backhoes, dump delivery trucks, concrete trucks, concrete boom pump, and service vehicles.

3.1 Project Schedule

Construction of the proposed bridge is planned to commence in 2020 or later. Relocation of overhead utility lines may require the County, utility provider, or their contractors to trim or remove trees prior to construction. Project duration is expected to be one season. In-water construction activities will be restricted to the period between 1 May and the first qualifying rain event on or after 15 October (more than one half inch of precipitation in a 24-hour period), subject to the Streambed Alteration Agreement, unless CDFW provides approval of work outside that period.

3.2 Construction Contract

The County would retain a construction contractor to construct the proposed improvements. The contractor would be responsible for compliance with all applicable rules, regulations, and ordinances associated with proposed Project activities and for implementing construction-related mitigation measures. The County would provide construction contractor oversight and management and would be responsible for verifying implementation of the mitigation measures. The contractor would construct the proposed Project in accordance with the Public Contract Code of the State of California, the State of California Department of Transportation Standard Plans and Standard Specifications, and the Contract, Project Plans, and Project Special Provisions under development by the County. The following are a combination of standard and project-specific procedures/requirements applicable to Project construction:

- Construction contract special provisions will require that a Traffic Management Plan be prepared. The Traffic Management Plan will include construction staging and traffic control measures to be implemented during construction to maintain and minimize impacts to traffic during construction. The Traffic Management Plan will address the coordination issues;
- Contract provisions will require notification by the County and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.5, 5097.9 et seq., regarding the discovery and disturbance of cultural materials or human remains should any be discovered during project construction;
- Contract provisions will require implementation of best management practices (BMPs) consistent with the California Stormwater Quality Association's (CASQA) handbooks/ templates and Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation.
- Contract provisions will require submittal and approval of a Dust Control Plan by the Placer County Air Pollution Control District prior to commencement of any ground disturbance:
    - Prior to approval of Grading/Improvement Plans, the applicant shall submit a Construction Emission / Dust Control Plan to the Placer County Air Pollution Control District. The applicant will not break ground prior to receiving District approval, of the Construction Emission / Dust Control Plan, and delivering that approval to the local jurisdiction issuing the permit.
    - Include the following standard note on the Grading Plan or Improvement Plans, or as an attached form: The prime contractor will submit to the District a comprehensive inventory (e.g., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower of greater) that will be used in aggregate of 40 or more hours for the construction project. If any new equipment is added after submission of the inventory, the prime contractor will contact the District prior to the new equipment being utilized. At least three business days prior to the use of subject heavy-duty off-road equipment, the project representative will provide the District with the anticipated construction timeline including start date, name, and phone number of the property owner, project manager, and on-site foreman.
    - Prior to approval of Grading or Improvement Plans, whichever occurs first, the applicant will provide a written calculation to the District for approval demonstrating that the

heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average of 20% of NOx and 45% of DPM reduction as compared to CARB statewide fleet average emissions. Acceptable options for reducing emissions may include use of late model engines, low emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.

- The County or its construction contractors will conduct early coordination with utility service providers, law enforcement and emergency service providers to ensure minimal disruption to service during construction;
- In general, the County and its construction contractors will comply with the current State of California Standard Specifications written by the State of California Department of Transportation, for public service provision.

4. Initial Study Checklist and Supporting Documentation

4.1 Initial Study Checklist

This section of the Initial Study incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines. Each resource topic section provides a determination of potential impact and an explanation for the checklist impact questions. The following 19 environmental categories are addressed in this section:

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

Each of the above listed environmental categories was fully evaluated and one of the following four determinations was made for each checklist question:

- **"No Impact"** means that no impact to the environment would occur as a result of implementing the Project.
- **"Less than Significant Impact"** means that implementation of the Project would not result in a substantial and/or adverse change to the environment and no mitigation is required.
- **"Potentially Significant Unless Mitigation is Incorporated"** means that the incorporation of one or more mitigation measures would reduce the impact from potentially significant to less than significant.
- **"Potentially Significant Impact"** means that there is either substantial evidence that a project-related effect would be significant or, due to a lack of existing information, could have the potential to be significant.

4.2 Setting, Impacts, and Mitigation Measures

4.2.1 Aesthetics

I. AESTHETICS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Environmental Setting

The Project is located in the Sacramento Valley, northeast of the City of Lincoln in unincorporated central Placer County (Figure 1, Figure 2). Elevation in the Project area ranges from approximately 230 to 260 feet above sea level. Land use adjacent to the Project include a residence and associated barn/ corral to the southeast, irrigated pasture to the southwest, large-lot residences to the northwest, and oak woodland and an abandoned olive grove to the northeast.

The 1994 Placer County General Plan provides guidelines for new development to ensure that projects are designed in a manner which does not detract from scenic areas. Examples of scenic areas include river canyons, lake watersheds, scenic highway corridors, ridgelines and steep slopes. The General Plan also encourages the protection and enhancement of scenic corridors although no specific scenic corridors are identified. These policies typically apply to new discretionary land use projects.

A Scenic Resource Evaluation and Visual Impact Assessment Memo was prepared for the Project to evaluate potential impacts to visual resources (Sycamore Environmental 2017). Based on the following information the memo concludes the Project will not adversely affect any scenic resources:

- The Project is not located on a highway or route that is designated or eligible for designation as a scenic highway (Caltrans 2017)
- The Project is not located within the Coastal Zone.
- Placer County's General Plan does not designate or identify any scenic resources in the project limits.
- The Project is consistent with the visual landscape of the surrounding area. The Project site is a rural road that runs primarily through rural residential land.
- There is a low potential for controversy in the community. The bridge replacement is necessary to improve public safety.
- This Project will not result in an aggregate adverse change in overall visual quality. There are currently no plans for future improvements in the area of this Project.

- The Extended Phase I Report prepared by Tremaine & Associates, Inc. (2017) states that the bridge is listed as Category 5 – Not Eligible for the National Register in Caltrans' Historic Bridge Inventory. The bridge is also not a historical resource for the purposes of CEQA.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Visual resources consist of two categories: scenic views and scenic resources. As per CEQA Checklist, scenic resources are described as specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. Scenic views are elements of the broader view shed such as mountain ranges, valleys, and ridgelines. A scenic vista refers to the view of an area that is visually or aesthetically pleasing.

The General Plan does not identify any specific scenic corridors or scenic resources in or adjacent to the Project area. The Project is not located on a highway or route that is designated or eligible for designation as a scenic highway (Caltrans 2017).

The Project would have temporary visual impacts from grading and revegetation activities during and for a short period following construction. The spread of invasive species in the Project area will be reduced by revegetating disturbed areas with native or sterile nonnative species. The Project will remove an estimated 33 native trees protected by Placer County ordinance. The final tree removal determination will be made by Placer County Department of Public Works. The Project will implement the following measures to avoid, minimize, and mitigate impacts to native trees

- Tree removal will be minimized to the extent possible.
- An Environmentally sensitive area (ESA) will be established to protect the riparian community outside the impact area. The ESA will be fenced or otherwise marked along the limits of construction adjacent to the riparian community to exclude construction activities from avoided habitat. The ESA fencing can be installed after initial clearing of vegetation, but shall be installed prior to any further work on the Project.
- Trucks and other vehicles will not be allowed to park within, nor shall equipment be stored within the ESA.
- No vegetation removal or ground disturbing activities will be permitted within the ESA.
- Placer County Code requires a tree permit for removal of native trees. The applicant will obtain a tree permit prior to removal of the native trees. Placer County will pay the in-lieu fee to the County tree preservation fund for native trees removed.
- Disturbed areas will be seeded with native herbaceous plant species in accordance with Appendix F (Revegetation Planting and Erosion Control Specifications) of the Project NES.

The horizontal alignment of the road approaches will match the existing as closely as possible while using a 40 mile per hour design speed. The bridge profile will be raised in order to convey the design hydraulic events: 50-year event with two feet of freeboard and pass the 100-year event. The maximum height difference of the proposed bridge road deck is approximately 4 feet higher than the existing bridge road deck. The proposed elevation of the new bridge deck is approximately 238 ft. Adjacent residences are located at elevations ranging from approximately 255 to 270 ft. The adjacent residences will remain well above the new road approach elevation.

Also views of the bridges from the adjacent residences are partially or entirely screened by existing vegetation that will not be affected by the proposed project.

The Project consists of replacement of an existing bridge. The replacement bridge will be visually consistent with the existing structure and other transportation infrastructure in the vicinity of the Project. Impacts to the scenic resources are considered less-than significant.

b) ***Less Than Significant Impact.*** See discussion of a) above.

c) ***Less Than Significant Impact.*** See discussion of a) above.

d) ***No Impact.*** The Project does not introduce any new source of light or glare.

4.2.2 Agricultural and Forestry Resources

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

Environmental Setting

The Project is located in a rural residential area and is bound by a residence and associated barn and corral to the southeast, irrigated pasture to the southwest, large-lot residences to the northwest, and oak woodland and abandoned olive grove to the northeast. Table 1 lists the California State Farmland Mapping and Monitoring Program (California Department of Conservation 2017c) designated farmland types in the Project area.

Table 1. Project Parcels Land Use, Zoning and Agricultural Designations

Placer County Assessor's Parcel Number (APN)	General Plan Land Use Designation	Zoning Designation	Agricultural Designations	
			California State Farmland Mapping and Monitoring Program Status	Williamson Act Contract Status
020-167-032	Agriculture/Timber land - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Farmland of Statewide Importance & Farmland of Local Importance	Not Enrolled
020-167-068	Agriculture/Timber land - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Farmland of Local Importance	Not Enrolled
020-167-067	Agriculture/Timber land - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Farm Land of Local Importance	Not Enrolled
026-141-027	Agriculture/Timber land - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Farmland of Local Importance	Not Enrolled
026-390-001	Agriculture/Timber land - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Other Land	Not Enrolled
026-390-021	Agriculture/Timber land - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Farmland of Local Importance	Not Enrolled

Potential Environmental Effects

a) ***Less Than Significant Impact.*** No Prime Farmland occurs in the Project area. A portion of APN 020-167-032 is designated as Farmland of Statewide Importance. The remaining parcels in the Project area are designated Farmland of Local Importance of Other Land. The State Farmland Mapping and Monitoring Program classification of farmlands in the Project area are listed in Table 1. None of the parcels in the Project area are currently under Williamson Act contract (Placer County 2017).

There is one parcel under contract immediately northwest of APN 026-141-027-000 and one 0.2 miles west of 026-167-032-000. Though the project would not impact parcels under contract, the project is within a predominantly agricultural area. However, as the project would improve an existing transportation facility, the project would not have a significant, unavoidable impact to the surrounding agricultural enterprises.

The Project does not require permanent ROW acquisitions nor does it 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. All parcels in the Project area are zoned F-B-X 10 AC MIN (Farm, Combining Minimum Building Site of 10 Acres). Replacement of a structurally deficient bridge in an existing transportation corridor is consistent with the current zoning.

b) ***Less Than Significant Impact.*** See response to item a above

c) ***No Impact***. All parcels in the Project area are zoned F-B-X 10 AC MIN. No timberland occurs in the Project area. The proposed Project is consistent with the existing zoning and does not include any rezoning activities.

d) ***No Impact***. See response to item c above.

e) ***No Impact.*** The Project is not anticipated to involve other changes in the existing environment that could result in conversion of farmland or forest land.

4.2.3 Air Quality

III. AIR QUALITY— Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

Western Placer County including the Project location occurs in the Sacramento Valley Air Basin (SVAB). Placer County is the only county in the state that is divided into three different air basins: the Sacramento Valley Air Basin; the Mountain Counties Air Basin; and the Lake Tahoe Air Basin. The San Francisco Bay Area Air Basin, Lake County Air Basin, North Coast air basins are located to the west, the Northeast Plateau Air Basin occurs to the north, and the San Joaquin Valley Air Basin is

located to the south. The SVAB is surrounded by the Coast Ranges on the west, the Cascade Range on the north, and the Sierra Nevada to the east. Climate in the SVAB is Mediterranean, with mild, rainy winters and warm to hot, dry summers. Prevailing summer winds are from the south-southwest and winter winds from the north.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the SVAB. The surface concentrations of pollutants are highest when these conditions are combined with smoke from wood burning or when temperature inversions trap cool air and pollutants.

The air quality of a region is determined by the air pollutant emissions (quantities and type of pollutants measured by weight) and by ambient air quality (the concentration of pollutants within a specified volume of air). Air pollutants are characterized as primary and secondary pollutants. Primary pollutants are those emitted directly into the air, for example carbon monoxide (CO), and can be traced to a single pollutant source. Secondary pollutants are those pollutants that form through chemical reactions in the atmosphere, for example reactive organic gasses (ROG) and nitrogen oxides (NO_X) combine to form ground level ozone, or smog. Emissions from the urbanized portion of the SVAB (Sacramento, Yolo, Solano, and Placer counties) have the greatest effect on air quality in the basin. On-road motor vehicles are the primary source of emissions in the metropolitan area.

Congress established much of the basic structure of the Clean Air Act in 1970, and made major revisions in 1977 and 1990. The Federal Clean Air Act established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed "criteria" pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS). The NAAQS and CAAQS attainment status of the SVAB is presented in Table 2.

Table 2. Attainment Status for SVAB

Pollutant	National Designation	State Designation
Ozone	Nonattainment	Nonattainment
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Nonattainment	Attainment
CO	Unclassified/ Attainment	Attainment
NO_2	Unclassified/ Attainment	Attainment
SO_2	Unclassified/ Attainment	Attainment
Lead	Unclassified/ Attainment	Attainment
Hydrogen Sulfide	NA	Unclassified
Visibility Reducing Particles	NA	Unclassified

The Placer County Air Pollution Control District (PCAPCD) administers the state and federal Clean Air Acts in accordance with state and federal guidelines. The PCAPCD regulates air quality through its district rules and permit authority. It also participates in planning review of discretionary project applications and provides recommendations. District rules applicable to the construction of the Project may include but are not limited to the following:

- **Rule 202 (Visible Emissions):** Requires that opacity emissions from any emission source not exceed 20% for more than 3 minutes in any one hour.
- **Rule 205 (Nuisance):** Prohibits the discharge of air contaminants which cause injury, detriment, nuisance, or annoyance.
- **Rule 207 (Particulate Matter):** Limits the discharge into the atmosphere from any source particulate matter emissions in excess of: 0.1 grains per cubic foot of gas at District standard conditions.
- **Rule 217 (Cutback and Emulsified Asphalt Paving Materials)**. Prohibits the use of the following asphalt materials for road paving: rapid cure cutback asphalt; slow cure cutback asphalt; medium cure cutback asphalt; or emulsified asphalt.
- **Rule 218-**Application of Architectural Coatings. Requires architectural coatings to meet various volatile organic compound (VOC) content limits.
- **Rule 224-Aggregate Containing Asbestos:** Limits the use of aggregate containing asbestos in any application or use except as provided in the Rule.
- **Rule 228-Fugitive Dust:**
    - Visible emissions are not allowed beyond the project boundary line.
    - Visible emissions may not have opacity of greater than 40% at any time.
    - Trackout must be minimized from paved public roadways.
- **Rule 233 (Stationary Internal Combustion Engines):** Limits emissions of NOx and CO from stationary internal combustion engines. (This rule applies to any stationary internal combustion engine rated at more than 50 brake horsepower, operated on any gaseous fuel or liquid fuel, including liquid petroleum gas (LPG), gasoline, or diesel fuel.)

Placer APCD CEQA Significance Thresholds are listed in Table 3.

Table 3. Placer APCD CEQA Significance Thresholds

Criteria Pollutant Thresholds									
Construction Phase				**Operational Phase (Project Level)**			**Operational Phase (Cumulative-Level)**		
	ROG	**NOx**	**PM_{10}**	**ROG**	**NOx**	**PM_{10}**	**ROG**	**NOx**	**PM_{10}**
Thresholds values (lbs/ day)	82	82	82	55	55	82	55	55	82

Potential Environmental Effects

As recommended in the PCAPCD's CEQA Air Quality Handbook (2012) construction emissions were estimated for the Project using the Sacramento Metropolitan Air Quality Management District's *Road Construction Emissions Model (*RCEM*), Version 9.0.0*. The RCEM was developed to estimate emissions from linear projects types including road and bridge construction. The RCEM divides the project into four 'Construction Periods:

- Grubbing/ Land Clearing
- Grading/Excavation
- Drainage/Utilities/Sub-Grade
- Paving

Based on similar County road and bridge projects, the assumptions presented in Table 4 regarding type of construction equipment and use duration were used in the RCEM. Other Project assumptions used in the RCEM include a total six-month construction schedule starting in 2020, 1,400 cubic yards of fill import, use of water trucks, and all equipment was assumed to run for eight hours per day. Results of the RCEM based on the Project assumptions are in Table 5.

Table 4. Construction Equipment and Use Assumptions.

Construction Period	**Equipment**	
	Quantity	**Type**
Grubbing/ Land Clearing	2	Excavator
	1	Bulldozer
	1	Signal Board
Grading/Excavation	1	Crane
	2	Bulldozer
	2	Excavator
	1	Grader
	1	Roller
	2	Loaders
	1	Scraper
	1	Signal Board
	1	Backhoe
Drainage/Utilities/Sub-Grade	1	Air Compressor
	1	Generator Set
	1	Grader
	1	Plate Compactor
	1	Pump
	1	Rough Terrain Forklift
	1	Scraper
	1	Signal Board
	2	Backhoe
Paving	1	Paver
	1	Paving Equipment
	1	Roller
	1	Signal Board
	1	Backhoe

Table 5. Estimated Construction Emissions

Project Phases	ROG lbs/day	CO lbs/day	NOx lbs/day	PM10 Total lbs/day	Exhaust PM10 lbs/day	Fugitive Dust PM10 lbs/day
Grubbing/land clearing	1.21	10.06	13.39	20.57	0.57	20.0
Grading/excavation	5.40	35.04	62.65	22.55	2.55	20.0
Drainage/utilities/sub-grade	3.59	27.43	37.76	21.69	1.69	20.0
Paving	1.05	10.99	10.29	0.58	0.58	0.0
Maximum lbs/day	5.40	35.04	62.25	22.55	2.55	20.0
Significance Threshold	82	AAQS	82	82	*N/A*	*N/A*
Significant?	No	No	No	No	*N/A*	*N/A*

Notes: Data entered to emissions model: Project Start Year: 2020; Project Length (months): 6; Total Project Area (acres): 9.43; Total Soil Imported/Exported (yd^3/day): 100. PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures. Total PM10 emissions are the sum of *exhaust* and *fugitive dust* emissions.

a) ***No Impact.*** The proposed Project is identified as PLA25536 in SACOG's financially constrained *2017/2020 Metropolitan Transportation Improvement Program* (MTIP) (SACOG 2019a) and *2016 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) (SACOG 2019b) 2016 MTP/SCS. The federally required MTIP is a short-term listing of surface transportation projects that receive federal funds, are subject to a federally required action, or are regionally significant. Only projects included in the MTP may be incorporated into the MTIP. The MTIP derives all its projects either directly or indirectly from the MTP. Projects included in the MTIP are required to conform to the State Implementation Plan for the region and would therefore not conflict with or obstruct SIP implementation.

b) ***Less Than Significant Impact.*** The SVAB (including western Placer County) is in nonattainment status for both federal and State ozone standards and the State PM10 standard. Project construction would create short-term increases in ROG, NOx, and PM10 emissions from vehicle and equipment operation. The RCEM estimates are below the County's significance threshold of 82 lbs/ day each for of ROG, NOx, and PM_{10}. The Project would not generate additional traffic on Crosby Herold Road. No increase in operational emissions will result from the Project.

c) ***No Impact.*** Cumulative net increases of criteria pollutants have been evaluated in the 2016 MTP/ SCS) (SACOG 2019b). This Project is referenced and evaluated in the 2016 MTP/ SCS (SACOG 2019b). Also see the response for item b).

d) ***Less Than Significant Impact.*** Sensitive receptors are facilities that generally house people, such as schools, hospitals, residences, etc. Single family residences occur immediately adjacent to the Project. Project construction would create short-term increases in ROG, NOx, and PM10 emissions from vehicle and equipment operation. The RCEM estimates are below the County's

significance thresholds for ROG, NOx, and PM_{10}. Impacts are considered less than significant due to the limited nature of the Project and short-term construction period.

The Project is not located within an area known to contain naturally occurring asbestos (NOA) or an area "more likely to contain naturally occurring asbestos" (Placer County 2008).

e) ***Less Than Significant Impact.*** Construction activities would involve the use of construction equipment and asphalt paving, which have distinctive odors. Odors are considered less than significant because of the limited number of the public affected and the short-term nature of the emissions.

4.2.4 Biological Resources

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

Environmental Setting

Potential impacts to biological and wetlands resources were evaluated in the following Project documents:

- **Natural Environment Study (NES):** The NES is a standard Caltrans report format for documenting and evaluating the potential Project impacts to biological resources (Sycamore Environmental 2017a).
- **Wetland Study/ Jurisdictional Delineation**: This report evaluates and delineates wetland and other waters of the U.S. in the project area (Sycamore Environmental 2017b).
- **Biological Assessment (BA):** The BA is prepared to support Endangered Species Act consultations with U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) (Sycamore Environmental 2017c).
- **Site Assessment Report for California Red-legged Frog (CRLF):** This report evaluates potential CRLF habitat in and within one mile of the Project area (Sycamore Environmental 2016). The site assessment was conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) guidelines

The Project biological documents conclude the following:

- Doty Ravine in the Project area provides suitable habitat for federal-listed Central Valley steelhead Distinct Population Segment (DPS; *Oncorhynchus mykiss irideus*), and is designated as critical habitat. The stretch of creek in the Project area provides freshwater rearing habitat and freshwater migration corridors.
- The Project area is also located within essential fish habitat (EFH) for Pacific salmon.
- Doty Ravine and wetlands in the Project area do not provide suitable breeding habitat for federal-threatened California red-legged frog (CRLF; *Rana draytonii*). The Project area is located at the western edge of the current range of CRLF and is not located in critical habitat or a core recovery area. The Project will not affect CRLF.
- The Project area does not provide habitat for any other federal-listed or proposed wildlife or plants.
- The Project area provides suitable habitat for several other special-status species including hardhead, Central Valley fall-run Chinook salmon Evolutionarily Significant Unit, foothill yellow-legged frog, western pond turtle, northern harrier, white-tailed kite, yellow-breasted chat, yellow warbler, and other birds of prey and migratory birds.
- The Project area provides habitat for two special-status plants ranked by the California Native Plant Society (CNPS). No special-status plants were observed during a botanical survey conducted during the evident and identifiable period for special-status plants with potential to occur.
- Doty Ravine is a natural community of special concern and a potential waters of the U.S. Removal of the existing bridge and installation of the replacement bridge will result in a temporary impact of 0.15 acre to Doty Ravine. The Project will have no permanent impacts to Doty Ravine below the ordinary high water mark.

- The Project will permanently impact the entirety (0.13 acre) of seasonal wetland (SW) 1 and will not impact SW 2, SW 3, or Ditch 2. No temporary impacts to SW2 or SW3 will occur.
- The riparian woodland along Doty Ravine and native trees in the Project area are habitats and natural communities of special concern protected by the Placer County Tree Preservation Ordinance (Placer County Code section 12.16 et seq.). The project will remove approximately 33 native trees, of which 16 occur in the riparian woodland.

Biological communities that occur in the Project area and anticipated impacts are shown in Table 6 (Sycamore Environmental 2017a). Valley Oak Woodland, Valley Oak Riparian, seasonal wetlands, and Doty Ravine are special-status natural communities in the Project area.

Table 6. Natural Communities in the Project area

Biological Community	Acreage	Temporary Impact (ac.)	Permanent Impact (ac.)
Irrigated Pasture	2.59	0.66	0.20
California Annual Grassland	1.38	0.25	0.05
Valley Oak Woodland	1.19	0.44	0.06
Valley Oak Riparian	0.84	0.20	0.10
Seasonal Wetlands	0.49	0.00	0.13
Doty Ravine	0.38	0.15	0.00
Ditch 2	Less than 0.01	0.00	0.00
Roadside Ditches 1, 3, 4	0.04	--	--
Other Land Cover Features			
Corral [1]	1.17	0.30	0.00
Paved and Dirt Roads [1]	1.32	--	--
Structure [1]	0.03	--	--
Total:	**9.43**	**2.00**	**0.54**

[1] Previously disturbed community, thus no impacts are calculated.

Potential Environmental Effects

a) ***Potentially Significant Unless Mitigation Incorporated.*** The Project area does not provide habitat for federal-listed plant species.

Special-Status Plant Species: The Project area provides suitable habitat for 2 special-status plants ranked by the California Native Plant Society (CNPS), big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) and dwarf downingia (*Downingia pusilla*). These species were not observed in the Project during a botanical survey conducted during the evident and identifiable period. No impact will occur.

Valley Elderberry Longhorn Beetle (VELB; *Desmocerus californicus dimorphus*): During the field survey, publicly accessible areas within 100 ft of the Project area were surveyed for VELB habitat. One elderberry (EB) shrub was mapped in the Project area. The EB is located northwest of the bridge, outside the construction footprint. No potential VELB exit holes were observed in the EB. The EB is growing out of an approximately 2.5-ft tall steel irrigation standpipe. During both the 2014 and 2016 field surveys, the exposed vegetation had been pruned for access to the irrigation valve. None of the exposed branches were one inch in diameter. The EB does not provide habitat for VELB. No impact will occur.

Hardhead (*Mylopharodon conocephalus*): Hardhead were not observed in Doty Ravine during biological surveys of the Project area. Doty Ravine in the Project area provides potential habitat for hardhead. The Project will result in 0.20 ac of temporary impacts and 0.10 ac of permanent impacts to the valley oak riparian community. Riparian vegetation provides fish habitat such as shading of the creek which affects temperature, provides litter and invertebrate fall, buffers the creek from impacts from adjacent uplands, and provides large woody debris and stream bank stability. Temporary impacts of 0.15 acre to Doty Ravine will result from water diversion, demolition of the existing bridge and abutments, placement of falsework, and construction of the new abutments. The Project will have no permanent impacts to Doty Ravine below the ordinary high water mark. Implementation of BIO-1, BIO-2, BIO-3, and BIO-7 will reduce potential impacts to hardhead.

Central Valley Steelhead DPS Discussion (*Oncorhynchus mykiss irideus*): Central Valley steelhead were not observed in Doty Ravine during biological surveys of the Project area. Doty Ravine in the Project area provides potential habitat for Central Valley steelhead. The Project will result in 0.20 acre of temporary impacts and 0.10 acre of permanent impacts to the valley oak riparian community. Riparian vegetation provides fish habitat such as shading of the creek which affects temperature, provides litter and invertebrate fall, buffers the creek from impacts from adjacent uplands, and provides large woody debris and stream bank stability. Temporary impacts of 0.15 acre to Doty Ravine will result from water diversion, demolition of the existing bridge and abutments, placement of falsework, and construction of the new abutments. The Project will have no permanent impacts to Doty Ravine below the ordinary high-water mark.

In letter dated 8 February 2018 NMFS concurred with the findings of the Project BA (NMFS 2018). The NMFS letter concludes that the Project may affect, but is not likely to adversely affect the Central Valley Steelhead or its critical habitat. NMFS determined the proposed Project would adversely affect EFH due to the following Project impacts: temporary loss of thermal

refugia and temporary alteration of spawning habitat via water diversion and project construction effects; permanent loss of 0.10 acre of Valley Oak Riparian habitat. In June 2019, coordination between the County, Caltrans, and NMFS verified potential project impacts and the required mitigation. Implementation of BIO-1 will reduce potential impacts to less than significant.

Measure BIO-1 (Central Valley Steelhead DPS): The following will be implemented to reduce impacts to fish species in Doty Ravine.

- *The County will purchase mitigation credits at a NMFS approved bank at a ratio of 3:1 for impacts to 0.10 ac of Valley Oak Riparian habitat.*
- *In-water construction activities will be restricted to the period between 1 May and the first qualifying rain event on or after 15 October (more than one half inch of precipitation in a 24-hour period), subject to the Streambed Alteration Agreement, unless CDFW provides approval of work outside that period.*
- *All personnel that will be on-site during project construction for a period of more than one contiguous hour will be trained by a qualified biologist regarding habitat sensitivity, identification of Central Valley steelhead, and required practices. The training shall include the general measures that are being implemented to conserve Central Valley steelhead as they relate to the project, penalties for noncompliance, and boundaries of the construction area. A fact sheet or other supporting materials containing this information will be prepared and distributed. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures.*
- *Riparian woodland vegetation will be avoided and preserved to the maximum extent practicable. ESA fencing will be placed between the limits of construction and the riparian habitat to prevent encroachment by construction equipment and personnel. The fencing can be installed after initial clearing of vegetation, but shall be installed prior to any further work on the Project.*
- *A qualified biological monitor will be designated for the project and will visit the site a minimum of once per week to ensure that ESA fencing is intact and that activities are being conducted in accordance with the agency conditions of approval.*
- *During construction, water quality will be protected by implementation of BMPs consistent with the current Caltrans Stormwater Quality Handbooks to minimize the potential for siltation and downstream sedimentation of Doty Ravine.*
- *During demolition of the existing bridge, a cover or other protection measure will be placed over the creek bed to prevent falling debris from entering the ravine.*
- *Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channel areas to prevent transport of materials into the adjacent Doty Ravine. The preferred distance is a minimum 100 feet from the wetted width of the creek. A silt fence will be installed and adequate materials for spill cleanup will be kept on site. Construction*

vehicles and equipment will be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease.

- *The temporary diversion structure will be designed so that fish passage is maintained up and down stream of the Project area. The diversion will not create an impassible barrier. The diversion would allow flows to pass through the existing channel under the bridge while maintaining water quality in the ravine. An open channel diversion will be used during construction to minimize impacts to Central Valley steelhead. The contractor will prepare a creek diversion and dewatering plan that complies with any applicable permit conditions.*
- *The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities. If steelhead are observed, construction will be halted until they move out of the construction zone. If they remain in the construction zone for an extended period, NMFS will be contacted for further guidance.*
- *If temporary diversion structures are constructed with natural materials (i.e., gravel), the material will be composed of washed, rounded, spawning-sized gravel between 0.4 to 4 inches in diameter. If gravel is left in place after the diversion is removed, it shall be manually spread out using hand tools, if necessary, to ensure adequate fish passage for all life stages.*
- *If pumps are used to temporarily divert a stream to facilitate construction, an acceptable fish screen must be used to prevent entrainment or impingement of small fish. Potential contact between fish and pump will be minimized and/or avoided by constructing an open basin prior to commencing dewatering.*
- *Construction of the bridge will take one season. All disturbed soils in the BSA will undergo erosion control treatment prior to October 15 and/or immediately after construction is terminated at the completion of the Project. Treatment includes temporary seeding and the application of sterile straw mulch or equivalent. Any disturbed soils on a gradient of over 30 percent will have erosion control blankets installed.*

Central Valley fall-run Chinook salmon ESU (*Oncorhynchus tshawytscha*): Central Valley fall-run Chinook salmon ESU were not observed in Doty Ravine during biological surveys of the Project area. Doty Ravine in the Project area provides potential habitat for Central Valley fall-run Chinook salmon ESU. Impacts to Central Valley fall-run Chinook salmon would be the same as those for Central Valley Steelhead DPS discussed above. Implementation of BIO-1 will reduce potential impact to less than significant.

Foothill Yellow-Legged Frog (FYLF; *Rana boylii*): FYLF were not observed during the biological surveys of the Project area. Doty Ravine in the Project area provides potential habitat for FYLF. Since the NES was prepared, the F&G Commission designated FYLF as a State Threatened 'Candidate' with all the protections as if it were listed as 'threatened.' A F&G Code Section 2081 Incidental Take Permit would be needed if FYLF were present in the construction footprint. With implementation of the avoidance and minimization efforts, the Project will not impact FYLF. Implementation of BIO-1, BIO-2, BIO-3, and BIO-7 will reduce potential impact to less than significant and avoid take of FYLF.

Measure BIO-2 (FYLF)

- *A preconstruction survey for FYLF will be conducted within 48 hours prior to work in the valley oak riparian habitat and Doty Ravine.*
- *If a FYLF is observed in the active construction zone, construction will cease and a qualified biologist will be notified. Construction will resume when the biologist has either relocated the FYLF to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the FYLF has moved away from the construction zone.*

California Red-Legged Frog (CRLF; *Rana draytonii*): There is no CRLF breeding habitat in the Project area. There are no current or historic records of CRLF in the vicinity of the Project area. CRLF were probably extirpated from the floor of the Central Valley before 1960. There is no CRLF critical habitat in the Project area. Implementation of BIO-3 will reduce potential impacts to less than significant. Implementation of BIO-1 and BIO-2 will also reduce potential project impacts to CRLF.

Measure BIO-3 (CRLF)

- *A qualified biologist shall conduct a preconstruction survey for CRLF within 48 hours prior to the onset of vegetation removal in the riparian habitat and Doty Ravine. If any CRLF are found, construction activities will stop in the riparian and aquatic habitats, and the USFWS and CDFW will be contacted immediately for further guidance.*
- *Environmental awareness training will be conducted by a qualified biologist prior to the onset of project work for construction personnel to brief them on how to recognize CRLF, the importance of avoiding impacts to this species, and what to do if they are found. Training will be conducted for staff on-site more than one hour and will be conducted for appropriate new personnel as they are brought on the job during the construction period. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures.*
- *All vegetation scheduled for removal in the valley oak riparian forest and Doty Ravine will be removed by hand or with hand-held power tools, including chainsaws. To minimize the potential of crushing a CRLF, mechanized vehicles will not be driven through the riparian corridor to clear the brush. After the brush has been removed, and a survey confirms the absence of CRLF, stumps and roots may be removed using mechanized vehicles and equipment. Mechanized vehicles will be operated from the top of the bank to the extent feasible.*
- *A qualified biologist will be present during grubbing and clearing activities in the riparian habitat to monitor for CRLF.*
- *ESA fencing will be placed between the limits of construction and the riparian habitat to prevent encroachment by construction equipment and personnel. The fencing can be installed after initial clearing of vegetation, but shall be installed prior to any further work on the Project. Vehicles will not be allowed to park in, nor will equipment be stored in the ESA. No storage of oil, gasoline, or other substances will be permitted in the ESA. No vegetation removal or ground disturbing activities will be permitted in the ESA. Signs will be placed on the exclusionary fencing that state "Environmentally Sensitive Area – Area Off Limits."*

- *The contractor will prepare a creek diversion plan that complies with any applicable permit conditions. A qualified biologist will conduct a survey of the area to be diverted prior to diversion installation. The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities.*
- *Plastic mono-filament netting (erosion control matting) or similar material containing netting shall not be used at the project site because the CRLF or other animals may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.*
- *If CRLF are found at any time during project work, construction will stop in the riparian and aquatic habitats, and the USFWS and CDFW will be contacted immediately for further guidance.*
- *To ensure compliance with the project's avoidance and minimization measures, a County inspector will be on-site whenever in-water work occurs. The County construction inspector will make recommendations to the construction personnel, as needed, to comply with all project implementation restrictions and guidelines. The County construction inspector will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources. A qualified biologist will be available during the construction period to assist the County construction inspector if CRLF are found and to answer questions and make recommendations regarding implementation of CRLF avoidance and minimization measures.*
- *Upon completion of construction activities, any barriers to flow shall be removed to allow flow to resume with the least disturbance to the substrate.*

Western Pond Turtle (WPT; *Emys marmorata*): WPT were not observed in the Project area during the general biological field surveys. Doty Ravine provides potential habitat for WPT. Implementation of BIO-1, BIO-2, and BIO-3 will reduce potential impacts to less than significant.

Migratory Birds and Birds of Prey

The Project area provides potential nesting habitat for birds of prey and birds listed by the Migratory Bird Treaty Act (MBTA) of 1918. Fish and Game Code 3503.5 protects all birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey). Birds of prey include raptors, falcons, and owls. Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). A black phoebe (*Sayornis nigricans*) nest was identified under the bridge during biological surveys. BIO-4 will be implemented to avoid impacts to birds of prey and birds listed by the MBTA.

Measure BIO-4 (MBTA & Birds of Prey)

Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 15 February to 1 September.

Swallows

In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Measures should be taken to prevent establishment of cliff swallow nests prior to construction. Techniques to prevent nest establishment include using exclusion devices, removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation, or perform any combination of these. This can be done by:

- *The contractor can visit the site weekly and remove partially completed nests using either hand tools or high pressure water; and/or*
- *Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins.*

Birds of Prey and Birds Protected by the Migratory Bird Treaty Act

- *If construction begins outside the 15 February to 1 September breeding season, there will be no need to conduct a preconstruction survey for active nests.*
- *Trees scheduled for removal should be removed during the non-breeding season from 2 September to 14 February. Vegetation removal includes trees and vegetation within the stream zone. Within the riparian community, vegetation will be removed using hand tools, including chain saws and mowers.*
- *If construction or vegetation removal begins between 15 February and 1 September, a biologist shall conduct a survey for active bird of prey nests and rookeries within 500 ft and active nests of all other MBTA-protected birds within 100 ft of the BSA from publicly accessible areas within two weeks prior to construction. The measures listed below shall be implemented based on the survey results.*

No Active Nests Found:

- *If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.*

Active Nests Found:

- *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:*
    1. *Stop all work within a 100-ft radius of the discovery.*
    2. *Notify the Engineer and CDFW.*
    3. *Do not resume work within the specified radius of the discovery until authorized.*
- *The biologist shall establish a minimum 500-ft ESA around the nest if the nest is of a bird of prey or is a rookery, and a minimum 100-ft ESA around the nest if the nest is of an MBTA bird other than a bird of prey.*

Bird Species Protection Areas

Protected Bird Type	***Size of Protection Area (ESA)***
Bird of prey or rookery	*500 ft no-disturbance buffer*
MBTA protected bird (not bird of prey)	*100 ft no-disturbance buffer*

- *Activity in the ESA will be restricted as follows:*
    1. *Do not enter the ESA unless authorized.*
    2. *If the ESA is breached, immediately:*
        a. *Secure the area and stop all operations within 100 feet of the ESA boundary.*
        b. *Notify the Engineer.*
    3. *If the ESA is damaged, County determines what efforts are necessary to remedy the damage and who performs the remedy.*
- *No construction activity will be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
- *The size of an ESA may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring and CDFW concurs that the ESA can be reduced. Reduction of ESA size depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific factors.*
- *Between 15 February and 1 September, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.*
- *If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.*

Northern harrier (*Circus cyaneus*): Northern harriers were not observed during the biological surveys of the Project area. Most of the wetlands and grasslands in the Project area are poor nesting habitats for northern harrier because they are well-grazed, the grass is short, and are subject to regular disturbance. Implementation of BIO-4 will reduce potential impacts to less than significant.

White-Tailed Kite (*Elanus leucurus*): The Project area provides potential habitat for white-tailed kite. White-tailed kites were not observed during the biological surveys in the Project area. White-Tailed Kite is a State fully-protected species and no "take" of White-Tailed Kite is ever authorized. Implementation of BIO-4 will reduce potential impacts to less than significant and avoid take.

Yellow-Breasted Chat (*Icteria virens*): The valley oak riparian community in the Project area provides potential habitat for yellow-breasted chat. Yellow-breasted chats were not observed during the biological fieldwork. Implementation of BIO-4 will reduce potential impacts to less than significant.

Yellow Warbler (*Setophaga petechia*): The valley oak riparian community in the Project area provides potential habitat for yellow warbler. Yellow warblers were not observed during the biological fieldwork. Implementation of BIO-4 will reduce potential impacts to less than significant.

Bats: The existing Crosby Herold Road Bridge provides potential roosting habitat for bats. Due to a lack of crevices, the bridge is most suitable as night roosting habitat. No bats or evidence of bats was observed during the survey. Bats could establish on the bridge prior to construction. Implementation of BIO-5 will reduce potential impacts to less than significant.

Measure BIO-5 (Bats)

Within the year prior to construction, the bridge shall be inspected for bats and/or bat sign. If evidence of bats is observed, exclusion measures using one-way exits shall be implemented. Bat exclusion must be complete prior to installation of netting for bird exclusion.

- *Exclusion devices shall be installed between 1 September and 1 November, or between 1 March and 1 April, which is outside of the maternity and hibernation season.*
- *If it is determined that the bats are not using the bridge as a maternity or hibernation site, exclusion devices may be installed at any time.*
- *Exclusion devices shall remain in place until demolition of the bridge.*

If exclusion devices are not installed during the specified windows, a survey shall be conducted within 2 weeks prior to construction to determine bat use of the bridge.

- *If no bats and/or bat sign is observed, no further avoidance and minimization measures are necessary.*
- *If it is determined that bats are using the bridge as a maternity or hibernation roost, CDFW shall be contacted to determine an appropriate avoidance buffer.*
    - *The avoidance buffer may be reduced if a qualified biologist monitors the construction activities and determines that no disturbance to the roost is occurring. Reduction of the buffer depends on the species of bat, the location of the roost relative to project activities, activities during the time the roost is active, and other project-specific conditions.*
    - *No work shall occur in the buffers until it is determined that the bats have left on their own, or until the end of the hibernation or maternity season, at which time exclusion devices can be installed.*
- *If it is determined that the bats are not using the bridge as a maternity or hibernation site, exclusion devices shall be installed a minimum of 48 hours prior to construction to ensure the bats have time to leave before construction begins.*
- *Exclusion devices shall remain in place until demolition of the bridge.*

b) ***Potentially Significant Unless Mitigation Incorporated.*** Valley Oak Woodland, Valley Oak Riparian, seasonal wetlands, and Doty Ravine are special-status natural communities in the

Project area. Doty Ravine and the seasonal wetlands in the Project area are potential waters of the U.S and are discussed under item c below.

Valley Oak Riparian: Approximately 0.84 acre of Valley Oak Riparian occurs along Doty Ravine in the Project area. Valley oak riparian in the Project area is part of the stream zone protected by Fish and Game Code Section 1600. Native trees within the riparian woodland are protected by the Placer County Tree Preservation Ordinance (Placer County Code section 12.16 et seq.). Placer County Tree Preservation Ordinance 12.16.020 defines riparian zone as any area within 50 feet from the centerline of a seasonal creek or stream, any area within 100 feet from the centerline of a year-round creek, stream, or river, and any area within 100 feet from the shoreline of a pond, lake, or reservoir. All trees, regardless of size, within a riparian zone are subject to protection. Native trees with a minimum 4-inch diameter at breast height (dbh) in the riparian zone were surveyed during the biological fieldwork. There are 71 trees in the riparian zone in the Project area as defined by Placer County ordinance.

The Project will remove an estimated 16 trees in the riparian zone as defined by Placer County ordinance. Table 7 summarizes trees in the Project area and the number to be removed. The final tree removal determination will be made by Placer County Department of Public Works.

Table 7. Estimated Native Tree Impacts in the BSA

Tree Species		**Total No. of Trees in Project Area**	**No. of Trees in the Riparian Zone***	**No. of Trees to be Removed in the Riparian Zone***	**Total No. of Trees to be Removed**
Common Name	**Scientific Name**				
California buckeye	*Aesculus californica*	2	2	0	0
White alder	*Alnus rhombifolia*	28	28	5	5
Oregon ash	*Fraxinus latifolia*	2	2	1	1
Black walnut	*Juglans hindsii*	2	2	1	1
Blue oak	*Quercus douglasii*	8	0	0	2
Valley oak	*Quercus lobata*	87	34	9	21
Interior live oak	*Quercus wislizeni var. wislizeni*	44	2	0	3
Gooding's black willow	*Salix gooddingii*	1	1	0	0
	Total:	**174**	**71**	**16**	**33**

* Placer County Tree Preservation Ordinance (Placer County Code Section 12.16 et seq.)

Per County ordinance, Chapter 12.16.030, no tree permit or discretionary approval for any development activity within a riparian zone will be approved until environmental impacts within the riparian zone are identified, an environmental determination is made, and the mitigation

measures identified. Additionally, no development activity will be permitted until any streambed alteration agreement or mitigation agreements required by CDFW have been completed. Implementation of BIO-6 will reduce potential impacts to less than significant.

Measure BIO-6 (Valley Oak Riparian)

- *Tree removal will be minimized to the extent possible.*
- *An Environmentally sensitive area (ESA) will be established to protect the riparian community outside the impact area.*
- *The ESA will be fenced or otherwise marked along the limits of construction adjacent to the riparian community to exclude construction activities from avoided habitat. The ESA fencing can be installed after initial clearing of vegetation, but shall be installed prior to any further work on the Project.*
- *Trucks and other vehicles will not be allowed to park within, nor shall equipment be stored within the ESA.*
- *No vegetation removal or ground disturbing activities will be permitted within the ESA.*
- *Placer County will obtain a tree permit prior to removal of the native trees. Placer County will pay the in-lieu fee to the County tree preservation fund for native trees removed.*

Valley Oak Woodland/ Trees: Approximately 1.19 acre of valley oak woodland occurs in the Project area. Valley oak woodland is considered highly imperiled by CDFW and is protected under the Placer County Oak Woodland Management Plan (2003) and the Placer County Tree Preservation Ordinance (Placer County Code Section 12.16 et seq.). All native trees (except gray pines) are protected under this ordinance. The Placer County ordinance also protects landmark trees, canopy trees, and riparian zones. It is the policy of Placer County to preserve trees wherever feasible through the review of all proposed development activities where trees are present on either public or private property.

The Placer County ordinance defines tree as a tall woody plant native to California, with a single main stem or trunk at least 6 dbh or a multiple trunk with an aggregate of at least 10 inches dbh. Gray pines (*Pinus sabiniana*) and certain brush species, such as manzanita (*Arctostaphylos* spp.), are not protected. Trees native to California, but not Placer County, which are planted as landscaping are also not protected.

Landmark trees are designated by resolution of the Board of Supervisors, and do not need to be native to California to be designated a landmark. Canopy trees are groups of trees typically found along roadways which form a canopy over the roadway. By adoption of resolution, the Board of Supervisors shall have authority to protect specific canopy tree areas as landmark trees.

There are a total of 174 trees in the Project area as defined by the Placer County ordinance. The Project will remove an estimated 33 native trees protected by Placer County ordinance. Table 7 lists those trees. The final tree removal determination will be made by Placer County Department of Public Works. Implementation of BIO-6 will reduce potential impacts to less than significant.

c) ***Potentially Significant Unless Mitigation Incorporated.*** Doty Ravine is a natural community of special concern because it is a potential waters of the U.S. Doty Ravine in the Project area is a perennial channel that flows west under the Crosby Herold Road Bridge. The Project will result in 0.15 acre of temporary impacts to Doty Ravine as a result of construction and placement of the temporary diversion, placement of falsework, demolition of the existing bridge and abutments, and construction of the new abutments. The project will have no permanent impacts to Doty Ravine below the ordinary high water mark. The new abutments will be constructed behind the existing, vertical concrete abutments. The existing abutments will be removed. The creek banks in front of the new abutments will be re-graded with soil. No RSP will be necessary in front of the new abutments. Implementation of BIO-1 in addition to BIO-7 will reduce potential impacts to less than significant.

Measure BIO-7 (Doty Ravine)

- *During construction, water quality will be protected by implementation of BMPs consistent with the Caltrans Stormwater Quality Handbooks (Caltrans 2011) to minimize the potential for siltation and downstream sedimentation of Doty Ravine.*
- *In-water construction activities will be restricted to the period between 1 May and the first qualifying rain event on or after 15 October (more than one half inch of precipitation in a 24-hour period), subject to the Streambed Alteration Agreement, unless CDFW provides approval of work outside that period.*
- *Water diversion in Doty Ravine will be conducted in accordance with the County of Placer Stormwater Management Plan (SWMP; Revised June 2004) and the Placer County Grading and Erosion Prevention Ordinance (Placer County 2008).*
- *Areas temporarily disturbed on the banks of Doty Ravine will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species in accordance with Appendix E of the Project NES (Sycamore Environmental 2017a). Reseeded areas will be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer will determine the specifications needed for erosion control fabric (e.g., sheer strength) based on anticipated maximum flow velocities and soil types. The seed type will consist of commercially available native grass and herbaceous species as described in Appendix E. No seed of nonnative species will be used unless certified to be sterile.*

Seasonal Wetlands and Ditch: There are three seasonal wetlands in the Project area totaling approximately 0.49 acre. There is approximately 0.01 acre of Ditch in the Project area. Seasonal wetland (SW) 1 located southwest of the bridge cannot be avoided during construction. The Project will permanently impact the entirety (0.13 acre) of SW 1 as a result of relocation of Crosby Herold Road and realignment of the roadside ditch. Although the footprint of the realigned ditch does not cover the entirety of SW 1, permanent impacts are assumed due to the extent of fill in the wetland and the change in the drainage pattern. SW 2 and 3, and Ditch 2, located northwest of the bridge are outside the construction limits and will not be affected by construction. Implementation of BIO-8 will reduce potential impacts to less than significant.

Measure BIO-8 (*Seasonal Wetlands & Ditch*)

- *ESA fencing will be placed between the limits of construction and SW 2, SW 3, and Ditch 2 to prevent encroachment by construction equipment and personnel. The ESA fencing will be in place prior to commencement of construction as verified by Placer County staff. All equipment will be stored, fueled and maintained in a vehicle staging area 300 feet or the maximum distance possible from nay wetland feature and no closer than 200 feet unless a bermed (no ground disturbance) and lined refueling area is constructed and hazardous-material absorbent pads are available in the event of a spill.*
- *Temporarily disturbed areas will be revegetated and reseeded in accordance with the Revegetation Planting and Erosion Control Specifications in Appendix E of the Project NES (Sycamore Environmental 2017a).*
- *The County will mitigate the permanent loss SW 1 at a 1:1 ratio by purchasing credits at a Corps approved mitigation bank or if approved by paying into the U.S. Army Corp of Engineers, Sacramento District California In-Lieu Fee Program.*

d) ***Less Than Significant Impact.*** Construction of the project could temporarily disrupt movement of native wildlife species that occur in or adjacent to the Project area. The lack of significant nearby development provides ample space for wildlife to easily avoid the construction site. Although construction disturbance may temporarily hinder wildlife movements within the project area, the impact is less than significant due to its short-term nature.

e) ***No Impact.*** See discussion under Item b above. Implementation of BIO-6 will mitigate potential Project impacts to native trees (riparian and upland). The Project is consistent with the County's policies or ordinances protecting biological resources.

f) ***No Impact.*** The Project is not located in an area covered by a habitat or natural community conservation plan. The County is currently preparing the Placer County Conservation Plan (PCCP) which is a County-proposed solution to coordinate and streamline the permitting process by allowing local entities to issue state and federal permits. The plan is still in process and is anticipated to be adopted after this Project has been completed.

4.2.5 Cultural Resources

V. CULTURAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Environmental Setting

The following cultural resource documents were prepared for the proposed Project:

- *Archaeological Survey Report (ASR, Tremaine 2014):* The ASR included a records search and literature review, an intensive pedestrian survey, and consultation with the Native American community and local preservation societies. The ASR documents both positive and negative archaeological survey results. Based on the results contained in the ASR, Caltrans requested that an Extended Phase I Investigation be performed.
- *Extended Phase I Investigation (XPI) Report (Tremaine 2017)*: The XPI study is an extension of the identification phase, meeting the requirements of 36 CFR 800.4(b) and Section 106 PA Stipulation VIII B "to identify historic properties within the area of potential effects" and similar requirements under CEQA. The goal of the XPI study is to define part or all of the boundaries (horizontal or vertical) of an archaeological site.
- *Phase II/ Archaeological Evaluation Report (AER, Tremaine 2019):* The results of a Phase II study are presented in an Archaeological Evaluation Report (AER). The Phase II study generally consists of fieldwork, analyses of the recovered material, and preparation of an AER. The AER documents the following:
    - The study activities;
    - Presents the results and their interpretation to professional standards; and
    - Provides justification for a determination that the site is eligible–or is not eligible– for inclusion in the NRHP (or is a historical resource for the purposes of CEQA, if appropriate)

To qualify for listing in the California Register of Historic Resources (CRHR) and to be considered a historical resource for the purposes of CEQA, a resource must meet one or more of the criteria set forth in PRC 5024.1 and the California Code of Regulations (CCR Title 14, Chapter 11.5, § 4850 et seq). Criteria include:

- **Criteria 1:** Association with events that have made a significant contribution to broad patterns of local or regional history;
- **Criteria 2:** Association with the lives of persons important to local, California, or national history;
- **Criteria 3:** Embodies the distinctive characteristics of a type, period, or region, has high artistic value, or is the work of master;
- **Criteria 4:** Has potential to yield information important to prehistory or history

The criteria for the National Register are nearly identical to the California Register. If Project construction were to cause a substantial adverse change in the significance of an archaeological resource eligible for listing on the National or State Register, then the Project would be considered to have a significant effect on the environment.

An archaeological pedestrian survey was conducted of the Project area on April 30, 2014. No historic properties were identified either within or immediately adjacent to the Project area. Despite negative findings, there was a high likelihood that the Project area could contain obscured or buried prehistoric deposits based on the presence of the two cultural resource sites, the presence of moderately deep soils, and varying degrees of surface visibility that limited observation of native sediments (vegetation cover)

(Tremaine 2014). Caltrans required an extended phase I (XPI) investigation based on the high likelihood that the Project area could contain obscured or buried prehistoric deposits.

An XPI investigation was subsequently completed in two rotations, the first taking place May 23rd through 25th, 2016 and the second on March 16th and 17th, 2017. A total of 10 Shovel Test Units (STUs) were excavated within the Project footprint.

A distinctive dark brown soil layer was encountered at varying depths ranging from 2 to 2.3 feet below the surface. This was thought to represent the historic land surface and was found to be sterile. Soil above the (i.e. the upper deposit) the dark brown soil layer appeared to be fill material used to level the property for use as an orchard. In all, six flakes were found within the upper deposit along with a fragmented piece of unidentifiable large mammal bone. The bone fragment was too small to identify, however, additional excavations were placed nearby with negative results for additional bone. The flakes and bone fragment were found intermixed with 10 wire fragments, 12 glass fragments, 8 wire nails, 6 cut nails, 5 bottle caps, 7 can fragments, and one No. 12 Winchester Model 1901 repeater shot shell cap (pre-1930s). These were recorded as a sparse lithic/historic scatter, likely secondarily deposited. Based on these results a Phase II investigation was conducted to formally evaluate both the historical and prehistoric components of this resource, with the following goals related to both physical *integrity* and *significance*:

- Confirm the nature of the deposit (whether or not it is secondary (i.e., fill));
- Determine the source of the possible "fill" (if nearby);
- Determine if intact portions of the resource exist within the Project footprint; and,
- Evaluate any data potentials of the site for their ability to contribute to local, state, and national research topics under National Register Criteria A through D.

Field work for the Phase II investigation was conducted in June and July 2018 and consisted of a total of 14 direct-push bores, extracting 1.5 inch-diameter soil cores at depths ranging from 6 feet to a maximum of 12 feet and hand excavation of three 3.2 ft square by 3.2 ft deep test units. The coring's and hand excavated areas suggest that four strata are present. The four strata are described briefly below:

- *Stratum 1(Fill- Redeposited Stratum 2 spoils)*: This stratum was observed to vary in thickness across the area tested and was determined to be as fill, likely redeposited from the area directly south where a gentle slope on the west side of Crosby Herold Road was cut to a depth of about two feet. The soil material contained very sparse amounts of prehistoric and historic debris (approximately 0.08 artifacts per cubic meter) that were spread northward during grading to level out the undulating terrain. No artifacts associated with this layer were recovered from the extracted bore samples.
- *Stratum 2 (Upper Primary deposit).* This stratum, underlying the fill, was found to range from about 12 to 24 inches in thickness. This material was determined to be native soil. The STUs and unit excavations contained very sparse amounts of prehistoric and historic debris. No artifacts associated with this layer were recovered from the extracted bore samples.
- *Stratum 3 (Paleosol).* This deposit, positioned below the Stratum 2, was found to range from about 24 to 28 inches below the surface and was determined to be a buried paleosol based on its

very dark brown color. No artifacts were found in this layer during STU, unit excavations, or direct-push bores. This stratum appears to be sterile.

- *Granitic Creek Bed Gravels*: This sterile deposit extends below Stratum 3 and was encountered between about 40 to 55 inches below the surface. This stratum is a buried creek bed consisting of angular granitic gravel and medium to coarse grained sand.

The AER concludes that the site is not eligible for inclusion in the NRHP (or CRHR). Caltrans concurred with findings on 16 May 2019.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** In total, 50 historic artifacts were recovered within the Project footprint during the Phase II fieldwork. The majority of these were cut nails with lesser amounts of wire nails, glass fragments, and barbed wire fragments. The remaining miscellaneous items included a couple of fence staples, a couple of rivets, a screw, a bottle cap, a chicken bone, introduced clam shell fragments, and a No. 12 Winchester Model 1901 repeater shot shell cap (pre-1930s).

The artifacts were then evaluated using the California Register criteria to determine if they were eligible for listing and status as a historical resource for the purpose of CEQA. A summary of the evaluation is presented below:

- **CRHR Criterion 1:** The historic artifacts are situated within a former orchard on lands currently being used as irrigated pasture. No conclusive evidence was found during historical research or during physical testing to link the sparse refuse scatter to events that have made a significant contribution to national, state, or local history. Also, no discrete deposit was identified containing materials that could contribute to our understanding of the activities that may have taken place at this site. Aerial photographs show an orchard in this location in the late 1930s. Interviews with the local residents suggest the area was later graded and used for grazing cattle.
- **CRHR Criterion 2:** The sparse historic refuse scatter occurs at the far northeastern end of a property once owned by James Nickerson, a successful rancher/orchardist. He settled on the south side of Doty Ravine in 1852 between Crosby Herold Road and McCourtney Road. Artifacts recovered from the XPI and Phase II testing, however, could not be attributed to this individual or any other particular household. Furthermore, none of the historic artifacts could be tied directly to orchard operations, appearing to be more consistent with roadside discard and hardware associated with barbed-wire fencing. Based on these findings the site was found ineligible for listing on the State Register under Criterion 2.
- **CRHR Criterion 3:** The Project area has no associated historic structures or buildings and no prehistoric features. As such, the resource does not embody distinctive characteristics representative of a type, period, or method of construction. Based on these findings the site was found ineligible for listing on the State Register under Criterion 3.
- **CRHR Criterion 4:** The assemblage of historic artifacts from the Project footprint represents a sparse refuse scatter consisting of primarily cut and wire nails, window and bottle glass fragments, barbed wire fragments, and fence staples. Only one dateable item

was found, a shot shell cap (pre-1930s), and there was no evidence of discrete deposits or features. Nearly three-quarters of these artifacts came from Stratum 1. The majority of the items appear to represent infrequent roadside discard events and remnants of barbed wire fencing associated with property boundary demarcation and cattle grazing operations. Any conclusions that might be drawn beyond this would be speculative at best. Based on these findings the site was found ineligible for listing on the State Register under Criterion 4.

Given the overall lack of significance of the cultural deposit, and only partial stratigraphic integrity, the site was determined ineligible for listing on the CRHR. In accordance with CEQA Guideline Section 15064.5(a) the County has determined that the sparse refuse scatter is not a historical resource for the purpose of CEQA. No impact will occur and not mitigation is needed.

b) ***Less Than Significant Impact.*** A sparse lithic scatter was recorded within the Project footprint during the Phase II fieldwork. The sparse lithic scatter was evaluated using the California Register criteria to determine its eligibility for listing and status as a historical resource for the purpose of CEQA. A summary of the evaluation is presented below:

- **CRHR Criterion 1:** The sparse prehistoric lithic scatter cannot be attributed to a significant event or specific period contributing to national, state or local Native American history. Based on this finding the site was found ineligible for listing on the State Register under Criterion 1.
- **CRHR Criterion 2:** The sparse lithic scatter cannot be tied to the life or lives of any particular individuals that made a significant contribution to national, state, or local history. Disruption of Native American populations and lifeways by 19th century Euroamerican entry and occupation of the region has resulted in the loss of any oral histories that may have existed relating to use of the site. Local Native American groups were consulted as part of this project and no specific knowledge of this site was forthcoming. Thus, the site cannot be linked to any notable achievement by a Native American individual in history or prehistory. Based on this finding the site was found ineligible for listing on the State Register under Criterion 2.
- **CRHR Criterion 3:** The Project area has no prehistoric features. As such, the sparse lithic scatter does not embody distinctive characteristics representative of a type, period, or method of construction. Based on this finding the site was found ineligible for listing on the State Register under Criterion 3.
- **CRHR Criterion 4:** The sparse lithic scatter found during Phase II testing represents material redeposited from ground immediately to the south, which had been cut during land leveling activities. The sparse lithic scatter appears to represent limited transient activities likely associated with the two nearby sites. The quantity of materials found is insufficient to draw any meaningful conclusions.

Given the overall lack of significance of the sparse lithic scatter, and only partial stratigraphic integrity, the site was determined ineligible for listing on the CRHR. In accordance with CEQA Guideline Section 15064.5(a) the County has determined that the sparse lithic scatter is not a historical resource for the purpose of CEQA.

c) ***Less Than Significant Impact.*** The Project site is underlain by Mesozoic-aged dioritic plutonic rock as shown on the 2010 Geologic Map of California (CDOC 2015a). A query of the University of California, Museum of Paleontology (UCMP) was run to determine if any fossils from the Riverbank Formation (invertebrates, vertebrates, micro fossils, and plants) are known to occur in or near Project Area. A total of 779 fossil records occur in Placer County. There are no recorded fossil locations in the Project area (UCMP 2017).

Plutonic rock was formed long ago as magma rose from deep sources in the earth and solidified before making it all of the way to the surface. Plutonic rock is igneous rock and is not fossil containing due to its origins.

d) ***Potentially Significant Unless Mitigation Incorporated.*** The Project AER documents that no cemeteries or burials were observed or known within the project study area ((Tremaine 2019). There is the possibility of accidental discoveries of human remains during construction-related ground-disturbing activities. Implementation of measure CULT-1 will reduce potential impacts.

Measure CULT-1:

- *The Improvement Plans shall include a note stating that if any archaeological artifacts, exotic rock (non-native), or unusual amounts of shell or bone are uncovered during any on-site construction activities, all work must stop immediately in the area and a qualified archaeologist retained to evaluate the deposit. The Placer County Planning Services Division and Department of Museums must all be contacted for review of the archaeological find(s).*
- *If the discovery consists of human remains, the Placer County Coroner and Native American Heritage Commission must also be contacted. Work in the area may only proceed after authorization is granted the Placer County Planning Services Division. Following a review of the new find and consultation with appropriate experts, if necessary, the authority to proceed may be accompanied by the addition of development requirements that provide protection of the site and/or additional mitigation measures necessary to address the unique or sensitive nature of the site.*

4.2.6 Tribal Cultural Resources

VI. Tribal Cultural Resources:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☒	☐
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant	☐	☐	☒	☐

pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Environmental Setting

Letters were sent out on September 24, 2014 to all the local Native American groups identified by the Native American Heritage Commission (NAHC), notifying them of the project. These letters provided general project information and maps, information regarding the two prehistoric sites within the 0.5-mi radius. The letter requested information from the Native American contacts regarding sites, traditional cultural properties, values, or other cultural resource considerations within the project area. Those contacted included representatives of the Shingle Springs, the United Auburn Indian Community (UAIC), T'si-Akim Maidu, and the Colfax-Todds Valley Consolidated Tribe.

On October 2, 2014, follow-up emails and phone calls were made to each of the recipients of the September letters. On October 6, 2014, the Shingle Springs Rancheria replied stating they knew of no cultural resources on the site but would like copies of records searches and surveys in the vicinity. Marcos Guerrero representing the UAIC requested a site visit, which was conducted on Monday, November 3, 2014. Mr. Guerrero stated he was pleased with the actions taken by Placer County and their consultants to ensure protection of Native American resources.

Subsequently the Ione Band of Miwok Indians, Washoe Tribe of Nevada and California, and UAIC requested notification of County projects under AB 52. On 15 June 2016 Placer County sent a letter to UAIC inviting them to consult under AB 52. On 14 July 2016, the UAIC requested to be a consulting party on the Project. In an email dated 12 August 2016 the County acknowledged the UAIC request. In a letter dated 11 June 2019 the County provided the UAIC with a Project status update. The letter requests that if the UAIC has any issues of concern regarding the Crosby Herold Road Bridge Project, including cultural values, religious beliefs, traditional practices cultural sites, that UAIC provide the County the opportunity to discuss them with the UAIC to aid in the development of avoidance, and/ or mitigation measures, as appropriate, based on what the County understands to be present with in the Projects Area of Potential Effect. On 29 July 2019 UAIC responded via email requesting copies of cultural reports and the status of the Project design. The 29 July 2019 email also stated the UAIC would be sending a letter to the County. The County provided the draft cultural reports to UAIC the same day. The County anticipates that the AB52 consultation, which began in 2016, will be ongoing throughout the CEQA process.

On 22 September 2017 Placer County sent a letters to the Ione Band of Miwok Indians and Washoe Tribe of Nevada and California inviting them to consult under AB 52. On 26 September 2017 the Washoe Tribe of Nevada and California responded via letter stating "*We have no interest with the Crosby Herold Road Bridge project, Placer County, California and defer to the United Auburn Indian Community.*" No response was received from the Ione Band of Miwok Indians during the 30 days provided by PRC 21080.3.l(d).

Potential Environmental Effects

a) ***Less Than Significant Impact (applies to items i and ii).*** No documentation regarding tribal cultural resources was identified or received that would facilitate an eligibility determination

pursuant to PRC Section 21074, 5020.1(k) or 5024.1. Given the overall lack of significance of the lithic scatter, and only partial stratigraphic integrity, the site was determined ineligible for listing on the CRHR. In accordance with CEQA Guideline Section 15064.5(a) the County has determined that the sparse lithic scatter is not a historical resource for the purpose of CEQA.

4.2.7 Energy

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

a) ***Less Than Significant.*** The Project does not introduce any new operational energy demands to the project area. The project is to replace an existing dysfunctional bridge. Energy usage during project construction would be to power construction equipment on site during construction activities. Future road and bridge maintenance activities (e.g. vegetation control, street sweeping etc.) would likely involve the use of electric or gas-powered equipment.

The project would be required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, which would ensure that the future activities would be be energy efficient to the maximum extent practicable. The project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and impacts related to construction and operational energy would be considered less than significant.

b) ***No Impact:*** Placer County does not currently have an adopted plan for renewable energy or energy efficiency. The County is currently preparing a Sustainability Plan (PCSP) that would provide a strategy to reduce GHG (greenhouse gas) emissions. This Plan would include goals and policies for energy efficiency. In the event the PCSP is adopted prior to the project receiving its entitlements, the project would be required to comply with the PCSP.

4.2.8 Geology and Soils

VII. GEOLOGY AND SOILS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless*	*Less Than Significant Impact*	*No Impact*

				Mitigation Incorporated
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, 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?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Environmental Setting

Regional Geology: The Project site is located near the boundary of the Great Valley and Sierra Nevada geomorphic provinces. The Great Valley is geomorphic province in an alluvial plain approximately 50 mi wide and 400 mi long in the central part of California. It is composed of the Sacramento Valley in the north and the San Joaquin Valley in the south. Once a large inland sea, the Great Valley Province was filled mostly by sediments eroded from ancient mountains to the east. Basin infilling and lowering of sea level resulted in the retreat of the inland sea, which changed the geologic environment to one of continental deposition. The Great Valley Geomorphic Province is characterized by a great thickness of generally flat-lying sedimentary rocks overlain by alluvial soils.

The Sierra Nevada is a nearly 400 miles long granitic batholith, much of which is exposed at higher elevations, with a gradual western slope and a generally steep eastern escarpment. Its east face is a high, rugged multiple scarp, contrasting with the gentle western slope that disappears under sediments of the Great Valley. Deep river canyons are cut into the western slope. Their upper courses, especially in massive granites of the higher Sierra, weremodified by glacial sculpturing, forming such scenic features as Yosemite Valley. The high crest culminates in Mt. Whitney with an elevation of 14,495 feet above sea level near the eastern scarp. The metamorphic bedrock contains gold bearing veins in the northwest trending Mother Lode. The northern Sierra boundary is marked where bedrock disappears under the Cenozoic volcanic cover of the Cascade Range.

Seismicity: Seismicity is defined as the geographic and historical distribution of earthquake activity. Seismic activity may result in geologic and seismic hazards including seismically induced fault

displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides and avalanches, and structural hazards. Based on historical seismic activity and fault and seismic hazards mapping, the Great Valley is considered to have relatively low potential for seismic activity, and is located beyond the highly active fault zones of the coastal areas of California.

Fault Systems: Although faults have been identified within the Sacramento area, no active faults are known to exist within Placer County. The project site is not located within an Alquist-Priolo Earthquake fault zone. Placer County is classified as a low-severity earthquake zone. The probable maximum expected earthquake intensity that can be anticipated in the zone would be VI or VII on the modified Mercalli Scale and a 5.0-5.9 in magnitude on the Richter Scale. The last geologic activity recorded in the area with an intensity of 4 or greater measured on the Richter Scale occurred in 1908. The epicenter of this event was located on a north/south line between Folsom and Auburn and on an east/west line between Placerville and Roseville (City of Roseville 2010).

The Project area is located between the seismically active Coast Range and the historically seismic Foothills Fault System in the Sierra Nevada. Regional faulting is associated with the central area of the Foothill Fault System which includes the Spenceville Fault, Deadman Fault, Wolf Creek Fault Zone, Bear Mountains Fault Zone, Grass Valley Fault, Weimar Fault Zone, DeWitt Fault and the Cleveland Hill Fault. The Foothill Fault System is a broad zone of northwest trending east dipping normal faults formed along the margin of the Great Valley and the Sierra Nevada geologic provinces on the western flank of the Sierra Nevada and southern Cascade mountain ranges. The central part of the fault zone is split into branches: the Melones Fault Zone to the east, the Cleveland Hill fault to the northwest, the Spenceville Fault to the west, and the Grass Valley and Wolf Creek Fault Zones in the area of the subject site (Holdrege & Kull 2016).

Soils: Mapped soil units in the Project area include Andregg course sandy loam, 2 to 9% slopes; Caperton gravelly coarse sandy loam, 2 to 30% slopes; Caperton-Andregg course sandy loam, 2 to 15% slopes; and xerofluvents, frequently flooded (Sycamore Environmental 2017c). Mapped soil units in the Project area are described briefly below.

- **Andregg course sandy loam, 2 to 9% slopes:** This soil is a moderately deep, gently rolling, well-drained soil underlain by weathered granitic bedrock. It formed in residuum on low hills in the Loomis Basin. Permeability is moderately rapid and the erosion hazard is moderate.
- **Caperton gravelly coarse sandy loam, 2 to 30% slopes:** This soil is an undulating to hilly, shallow, somewhat excessively drained soil that formed in residuum from granitic rock. Permeability is moderately rapid, and the erosion hazard is moderate or high.
- **Xerofluvents, frequently flooded:** This mapping unit is approximately 90% xerofluvents, frequently flooded, and 10% unnamed minor components. Xerofluvents, frequently flooded, consist of narrow stringers of somewhat poorly drained recent alluvium adjacent to stream channels. Permeability is variable and the erosion hazard is high.
- **Caperton-Andregg course sandy loam, 2 to 15% slopes:** These undulating to rolling soils are on the granitic foothills in the Folsom Lake-Loomis Basin area. The unit is about 50 percent Caperton soil and 30 percent Andregg soil. The Caperton soil is on rounded knolls, and the Andregg soil is on foot slopes. Andregg and Caperton soils are described above.

Potential Environmental Effects

a) ***a-i) No Impact.*** No active faults have been identified in Placer County. Therefore, the Project will not rupture a fault mapped on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

a-ii) No Impact. The Project is not in a seismic hazard zone (CDOC 2017b).

a-iii) No Impact. No portion of Placer County occurs in a Seismic Hazard Zone (i.e., regulatory zones that encompass areas prone to liquefaction and earthquake-induced landslides) based on the Seismic Hazards Mapping Program administered by the California Geologic Survey (CGS). Consequently, Placer County and the Project site are not considered to be at risk from earthquake-liquefaction hazards.

a-iv) No Impact. No portion of Placer County occurs in a Seismic Hazard Zone (i.e., regulatory zones that encompass areas prone to liquefaction and earthquake-induced landslides) based on the Seismic Hazards Mapping Program administered by the California Geologic Survey (CGS) (CDOC 2017a). Consequently, Placer County and the Project site are not considered to be at risk from earthquake-induced landslides.

b) ***Less Than Significant Impact.*** Measure *BIO-1* will require implementation of best management practices (BMPs) consistent with the Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation. Construction activities will include implementation of stormwater runoff best management practices (BMPs). Application of these requirements and measures would prevent substantial erosion or topsoil loss. Areas temporarily disturbed will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species. No seed of nonnative species will be used unless certified to be sterile.

c) ***No Impact.*** No fault traces, landslides, or other geologic hazards are mapped crossing or directly adjacent to the project site. Soils on site are not susceptible to landslide, lateral spreading, subsidence, liquefaction, or collapse (Holdrege & Kull 2016). No impacts are anticipated from unstable soil.

d) ***Less Than Significant Impact.*** Expansive soils that may swell enough to cause problems with paved surfaces are generally clays falling into the AASHTO A-6 or A-7 groups, or classified as CH, MH, or OH by the Unified Soil Classification System (USCS), and with a Plasticity Index greater than about 25 as determined by ASTM D4318. Chapter 610 of the Caltrans Highway Design Manual (2012) defines and expansive subgrade to include soils with a Plasticity Index greater than 12 (Caltrans 2012).

AASHTO group classification is a system that classifies soils specifically for geotechnical engineering purposes that are related to highway and airfield construction. It is based on particle-size distribution and Atterberg limits, such as liquid limit and plasticity index.

AASHTO and USCS classification for the soils in the Project area are listed in Table 8 (NRCS 2017). The NRCS Web Soil Survey indicates the maximum plasticity index of soils in the Project area is 15 (NRCS 2017). Soils in the Project area have a low to medium expansion potential based on the Caltrans definition.

Table 8. AASHTO and USCS soil classes for Project area

Soil Unit In Project Area	Classification	
	AASHTO	USDS
Caperton-Andregg course sandy loam, 2 to 15% slopes	A-2	SM (Silty sands, sand-sill mixtures)
Xerofluvents, frequently flooded	A-2	SC (Clayey sands, sand-clay mixtures)

The Project is being designed in accordance with the special engineering or construction considerations outlined in Chapter 610 *"Engineering Considerations"* of the Highway Design Manual, California Transportation Department. Because the project is being designed in accordance with the Caltrans Highway Design Manual and will consider and address expansive soils impacts are considered less than significant.

e) ***No Impact.*** The proposed Project is a surface transportation project. Septic tanks and alternative wastewater disposal systems are not part of the Project.

4.2.9 Greenhouse Gas Emissions

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

Environmental Setting

Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (OPR 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Greenhouse gas emissions for transportation projects can be divided into those produced during operations and those produced during construction. The proposed Project does not increase the capacity of Crosby Herold Road and would not increase operational GHG levels. The discussion below therefore focuses on construction related GHG emissions of the Project.

On October 13, 2016, the Placer County Air Pollution Control District (PCAPCD) Board of Directors adopted the Review of Land Use Projects under CEQA Policy (Policy). The Policy establishes the thresholds of significance for criteria pollutants as well as greenhouse gases and the review principles which serve as guidelines for the PCAPCD staff when the PCAPCD acts as a commenting agency to review and comment on the environmental documents prepared by the lead agencies. In developing the thresholds, the PCAPCD took into account health-based air quality standards and the strategies to attain air quality standards, historical CEQA project review data in Placer County, statewide regulations to achieve emission reduction targets for GHG, and the special geographic and land use features in Placer County.

The PCAPCD approach to developing significance thresholds for GHG emissions is to identify the emissions level for which a project would be expected to substantially contribute a mass amount of emissions and would conflict with existing statewide GHG emission reduction goal adopted by California legislation. The PCAPCD has developed a 3-step process for determining significance which includes 1) a bright-line threshold, 2) a De Minimis level, and 3) an efficiency matrix for projects that fall between the Bright-line and the De Minimis level. The State of California set a goal to reduce GHG emissions without limiting population and economic growth. The Placer APCD concept is to look for a reasonable threshold which would capture larger–scale projects with significant GHG emission contributions which should implement mitigation.

Placer APCD GHG Emissions Significance Thresholds are listed in Table 9.

Table 9. Placer APCD 2016 Approved GHG Emissions Significance Thresholds.

Greenhouse Gas Thresholds			
Bright line threshold 10,000 Metric Tons (MT) CO2e/yr			
Efficiency Matrix			
Residential		**Non-Residential**	
Urban	**Rural**	**Urban**	**Rural**
(MT CO2e/capita)		(MT/CO2e/1,000 sf)	
4.5	**5.5**	**26.5**	**27.3**
De Minimis Level 1,110 (MT) CO2e/yr			

Potential Environmental Effects

a) ***Less Than Significant Impact.*** The proposed Project does not increase the capacity of Crosby Herold Road and would not increase operational GHG levels. Construction of the proposed Project would generate short-term emissions of greenhouse gases. The Sacramento Metropolitan Air Quality Management District (SMAQMD's) Road Construction Emissions Model, Version 9.0.0 was utilized to estimate CO2e from construction of the proposed Project.

The Road Construction Emissions Model results indicate Project construction is estimated to produce a maximum of approximately 8,138 lbs per day of CO2e or a total for the Project of approximately 343 tons (MT) of CO2e over the assumed 6-month construction period. On a yearly basis this equals approximately 686 tons of CO2e per year.

CO2e emissions associated with construction are temporary. Construction emissions would be well below the Placer APCD GHG bright line threshold of 10,000 metric tons of C02e per year and also below the de minimis level of 1,110 (MT) CO2e/yr. Project impacts are considered less than significant.

b) ***Less Than Significant Impact.*** The proposed Project is identified as PLA25536 in SACOG's *2016 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) (SACOG 2019b). The 2016 MTP/SCS is the applicable GHG emissions reduction plan for the Project. The Project will not conflict with the applicable GHG reduction plan as it was included in the 2016 MTP/SCS analysis.

4.2.10 Hazards and Hazardous Materials

IX. HAZARDS AND HAZARDOUS MATERIALS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site 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?	☐	☐	☐	☒
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 for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Environmental Setting

An Initial Site Assessment (ISA) report was prepared for the Project area by Crawford & Associates Inc. (CAInc, formerly Taber, 2017). The ISA also contains the results of lead and asbestos sampling (NAL

2017). A regulatory agency database review for locations included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (The Cortese list') was conducted as part of the ISA process. Caltrans approved the ISA on 8 August 2017. CAInc's report concludes the following:

- The project site was not identified in any of the environmental database records reviewed.
- The database records search did not identify any Recognized Environmental Conditions (RECs) or historical RECs in the site vicinity that could have potentially impacted the project site.
- Historical aerial photographs did not identify any RECs or historical RECs in the site vicinity that could have potentially impacted the project site.
- Historical topographic maps indicate the presence of mining activity in the vicinity of the project site, including dredge tailings 1.8± miles upstream of the project site. Historically, mercury contamination has been associated with dredging operations. Given the distance of the dredge tailings from the project site, it is possible that mercury could be present in sediments beneath the bridge, but concentrations are likely to represent de minimis conditions. The potential for mercury in the Project area stream sediments is not a recognized REC.
- A bridge inspection was completed by NAL in December 2016, in conformance with the EPA's Asbestos Containing Building Materials (ACCM) In-Schools Rule and 40 CFR 763.85 (Inspection and Re-Inspection). Suspect asbestos bulk sample materials were collected in accordance with EPA and OSHA protocols. The bridge inspection and analytical results indicated that ACCM is not present in the bridge construction material.
- Bridge components observed during the site reconnaissance were not painted. NAL did not identify any lead-based paint during their inspection.
- NAL sampled thermoplastic traffic striping in the Project area. Concentrations of lead (2.7 mg/Kg) and chromium (3.2 mg/Kg) in the yellow paint striping material do not exceed their respective hazardous waste thresholds.
- No Naturally Occurring Asbestos (NOA) was observed in the Project area. Geologic mapping of the region indicate that the potential for NOA within the Project area is low
- Caltrans 2015 Standard Specification 84-9.03 provides guidance on removal of paint striping and pavement markings that do not contain hazardous levels of metals. Because lead is present in this material and exposes workers to health hazards, Caltrans 2015 Standard Special Provisions 36-4 and 84-9.03C require that management of this material must be addressed in a comprehensive lead compliance plan. Caltrans Standard Specification 7-1.02K(6)(j)(ii) provides additional information regarding lead compliance plans.
- Four composite samples were collected by NAL and analyzed for aerially deposited lead (ADL). According to NAL, lead concentrations for all four samples were reported as <40 mg/Kg. These concentrations are below the hazardous waste threshold for lead, and further analytical testing is not indicated.
- The ISA identifies the following non-REC's and Caltrans standards that address them.

- Chemically Treated Wood: Caltrans 2015 Standard Specification 14-11.14 and 2015 Special Standard Provision SSP 14-11.14 provide guidance for the proper handling and disposal of treated wood waste.
- Thermoplastic Traffic Striping: Caltrans 2015 Standard Specification 84-9.03 provides guidance on removal of paint striping and pavement markings that do not contain hazardous levels of metals. Because lead is present in this material (below hazardous levels) Caltrans 2015 Standard Special Provisions 36-4 and 84-9.03C require that management of this material must be addressed in a comprehensive lead compliance plan. Caltrans Standard Specification 7-1.02K(6)(j)(ii) provides additional information regarding lead compliance plans.
- Aerially Deposited Lead (ADL): Caltrans 2015 Special Standard Provision 7-1.02K(6)(j)(iii) requires a lead compliance plan for soil disturbance when lead concentrations are non-hazardous. Caltrans Standard Specification 7-1.02K(6)(j)(ii) provides additional information regarding lead compliance plans.

The ISA concludes that '*Based on a review of the public records, historical aerial photographs and historic topographic maps, and the site reconnaissance performed on 21 December 2016, CAInc has not identified a REC* (recognized environmental condition) *with respect to site conditions. CAInc has no recommendations for additional investigation.'*

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Small amounts of hazardous materials would be used during construction activities (i.e., equipment maintenance, fuel, solvents, roadway resurfacing and re-striping materials). Hazardous materials would only be used during construction of the Project, and any hazardous material uses would be required to comply with all applicable local, state, and federal standards associated with the handling and storage of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less-than-significant impact.

b) ***Less Than Significant Impact.*** The ISA concludes that no identified REC's occur in the Project area (Crawford 2017). Non-REC's in the Project area include chemically treated wood, thermoplastic traffic striping, and management of disturbed soil. The contractor would construct the proposed Project in accordance with the Public Contract Code of the State of California, the State of California Department of Transportation Standard Plans and Standard Specifications, and the Contract, Project Plans, and Project Special Provisions under development by the County.

c) ***No Impact.*** No existing or proposed schools occur within 0.25 mile of the Project site. Carlin C Coppin Elementary is the closest school and is located approximately 2.5 miles southwest of the Project site. As noted above, the Project would involve the short- term handling of hazardous materials during construction. Handling and storage of hazardous materials during construction would comply with all applicable local, state, and federal standards.

d) ***No Impact.*** No listed hazardous materials or waste sites occur within or near the project site.

e) ***No Impact.*** The Project is not located within two miles of a public airport or public use airport and no private air strips occur in close proximity to the Project.

f) ***No Impact.*** See response of item e) above.

g) ***Less Than Significant Impact.*** Crosby Herold Road will be closed to through traffic during construction. A detour route will be made available to maintain access to all residential properties affected by the closure. An approximately 5.5-mile detour will be established on local roads. Project construction activities would be coordinated with local law enforcement and emergency services providers.

h) ***Less Than Significant Impact.*** The completed Project will not expose people or structures to a new or increased significant risk of loss, injury or death involving wildland fires. Project construction activities would be coordinated with local law enforcement and emergency services providers.

4.2.11 Hydrology and Water Quality

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

Environmental Setting

The Project is located in the Upper Coon-Upper Auburn Hydrologic Unit (hydrologic unit code 18020161). Doty Ravine originates approximately 8 miles east of the Project site near Auburn and its watershed is approximately 16,003 acres. From its headwaters to its mouth, where it empties into Coon Creek, the length of Doty Ravine is approximately 14 miles. The Crosby Herold Road Bridge is located near the center of the watershed, approximately 6 miles upstream of its confluence with Coon Creek.

Doty Ravine is not a 303(d) listed water body as per the Final California 2014-2016 Integrated Report (303(d) List/305(b) Report) (SWRCB 2019).

The FEMA Flood Insurance Rate Map (FIRM) dated June 8, 1998 (panel 06061C0275F) show that the Crosby Herold Road crossing at Doty Ravine is located in a Zone A area (FEMA 2008). Zone A includes areas that are within the 100-year/base floodplain where base flood elevations (BFEs) have not been determined.

In 2010, FEMA distributed preliminary copies of the Placer Countywide Digital FIRMs, which contain a digital representation of the special flood hazard area impacting the Project site. The preliminary (not yet adopted or approved) FIRM panels from 2010 also shows the Project site being located in a Flood Zone A.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Project grading, installation of rock slope protection (RSP), equipment operations/ maintenance include the use of fuels, lubricants, batteries, and coolants and may generate construction debris. These are the primary Project activities and materials that have the potential to pollute stormwater.

Measures BIO-1, BIO-3, BIO-6, BIO-7, and BIO-8 contain actions that reduce potential impacts to water quality as well as biological resources. Water quality objectives will be met through adherence to BIO-1, BIO-3, BIO-6, BIO-7, and BIO-8 and other construction provisions, precautions, and stipulations as described in the National Pollution Discharge Elimination System (NPDES) permit, Section 404 CWA permit, Section 401 CWA Water Quality Certification, and 1602 Streambed Alteration Agreement.

Coverage under the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ)) will be obtained. The County will require the contractor to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) to reduce or minimize discharge of pollutants from construction activities.

Implementation of the revegetation measures and water quality BMPs in BIO-1, BIO-3, BIO-6, BIO-7, and BIO-8 as well as adherence to Project permit requirements will ensure long-term soil stabilization and protection of water quality during construction.

b) ***No Impact.*** The Project would not involve any withdrawals from an aquifer or groundwater table.

c) ***Less Than Significant Impact.*** The Project is the replacement of an existing structure and will not alter the course of the Doty Ravine and will not substantially change rate or amount of surface runoff present.

The Project Roadway Drainage Technical Memorandum evaluated the Projects roadway drainage characteristics (CH2M 2016). All proposed drainage facilities were evaluated in a manner consistent with the procedures outlined in the Placer County Storm Water Management Manual (SWMM). All proposed ditches, inlets, and storm drain pipes were evaluated using the 10-year storm event and found to be compliant with the SWMM criteria. The gutters were evaluated for the 10, 25, and 100-year storm events. Of the five reaches of gutter on the project, two were fully compliant with SWMM criteria for all design storms. Three reaches slightly exceeded the 10-year event criteria, but were compliant for the 25-year and 100-year events. Overall drainage patterns do not substantially change from the pre- to post-project conditions. There are no anticipated impacts to upstream or downstream properties as a result of this project.

The drainage system has been designed to contain flow from a 100-year storm. Implementation of the revegetation measures and water quality BMPs in BIO-1, BIO-3, BIO-6, BIO-7, and BIO-8 as well as adherence to Project permit requirements will ensure long-term soil stabilization and protect water quality during construction.

d) ***Less Than Significant Impact.*** See response to item a) and c) above.

e) ***Less Than Significant Impact.*** The Crosby Herold Road at *Doty Ravine Bridge Replacement Project – Roadway Drainage Technical Memorandum* prepared by CH2M Hill (2017) analyses the roadway drainage characteristics of the existing and proposed facilities. The Small Watersheds Method described in Section V-E, Hydrology Runoff Computation, of the Placer County Storm Water Management Manual (SWMM) dated September 1, 1990 was used to calculate the peak flows for the 10-year, 25-year and 100-year storm events. Ten-year design storm peak flows were used to size the roadside ditches, and evaluate the onsite drainage facilities. The Small Watersheds Method is appropriate for determining peak runoff from basins of up to 200 acres.

Roadside drainage will be captured in overside drains on the roadway approaches, directing the flow away from the bridge. Drains will empty into RSP pads to prevent creek bank erosion and channel scour from roadside runoff. No RSP will be placed below the OHWM of Doty Ravine. Drainage from the bridge deck will be discharged through a series of scuppers that will outfall directly into Doty Ravine. In order to keep road runoff within the right-of-way, the roadside ditch northeast of the bridge will be put in a pipe starting approximately 130 feet north of the bridge. Project roadway drainage components are discussed generally below:

- **Roadside ditches** were sized to carry the 10-year design storm with natural grass lining. All ditches have a minimum freeboard of approximately 0.2-feet during the 10-year event.
- **Gutters:** All gutters on the project comply with the SWMM criteria for the 10-year, 25-year and 100-year events.
- **Inlets:** The project has five proposed inlets. The inlets comply with the SWMM criteria for the 10-year event.

- **Scuppers:** Drainage on the bridge deck will be provided by scuppers. The proposed scuppers will be 2-inches tall, and 12-inches long and be placed at 10-feet on center on both sides of the bridge.
- **Culverts and Storm Drain Pipes:** The Project has one existing culvert, one proposed culvert replacement, and multiple proposed storm drain pipes. The Project will replace the existing 12-inch corrugated metal pipe (CMP) cross culvert that drains runoff from the roadway surface and offsite runoff from the hillside to the east and an adjacent private parcel with a single 42-inch reinforced concrete pipe (RCP) culvert at a grade of 1.0%. The project also proposes installation of a network of 12-inch RCP storm drain pipes, grated drainage inlets, and storm drain manholes (SDMH) as part of the drainage system north of the bridge. The storm drain pipes are located based on guidelines in the LDM.

The memo concludes that all proposed ditches, inlets, gutters, scuppers, and storm drain pipes were evaluated against the criteria in the SWMM and the Placer County Land Development Manual (LDM) and found to be consistent. Drainage patterns will not substantially change from the pre- to post-project conditions. There are no anticipated impacts to upstream or downstream properties as a result of this project.

f) ***No Impact.*** No additional impacts other than those discussed above are anticipated.

g) ***No Impact.*** The Project is a bridge replacement project, and no housing development is associated with the Project.

h) ***Less Than Significant Impact.*** The majority of the Project site occurs within 100-year floodplain of Doty Ravine per FEMA/FIRM 06061C0275F (FEMA 2008). The existing bridge is currently located within a 100-year base floodplain. The Project would not result in incompatible floodplain development (WRECO 2014). The Project would maintain local access, and would not create new access to developed land. The Project would not facilitate incompatible base floodplain development. Because the proposed bridge alignment is roughly perpendicular to the 100-year base floodplain, it is not a longitudinal encroachment to the base floodplain.

Hydraulic modeling conducted by WRECO for the proposed Project concludes that the wider opening of the replacement bridge will would result in decreases in water surface elevation (WSE) and reduced backwater relative to existing conditions (WRECO 2014).

i) ***No Impact.*** The Project does not involve activities associated with dams or levees and would not expose people to higher levels of risk involving flooding.

j) ***No Impact.*** The Project is not in an area subject to seiche or tsunami.

4.2.12 Land Use and Planning

XI. LAND USE AND PLANNING—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?	☐	☐	☐	☒

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Environmental Setting

The 2013 Placer County General Plan is the relevant land use plan for the project area. Table 10 lists the General Plan designation of the parcels in the Project area (Placer County 2013).

Table 10. General Plan Designation of Parcels in Project area

Placer County Assessor's Parcel Number (APN)	General Plan Land Use Designation	Zoning Designation	Williamson Act Contract Status
020-167-032	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
020-167-068	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
020-167-067	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
026-141-027	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
026-390-001	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled
026-390-021	Agriculture/Timberland - 10 ac Min.	F-B-X 10 AC. MIN. (Farm, building site 10 ac Min.)	Not Enrolled

Potential Environmental Effects

a) ***No Impact.*** The Project proposes to replace the existing bridge on substantially the same alignment and would not physically divide an established community.

b) ***No Impact.*** The Project would not conflict with the goals, objectives or policies intended to mitigate environmental impacts adopted in the 2013 Placer County General Plan.

c) ***No Impact.*** The County is currently preparing the Placer County Conservation Plan (PCCP) which is a County-proposed solution to coordinate and streamline the permitting process by allowing local entities to issue state and federal permits. The plan is still in process and might be adopted by the time the Project has been completed.

The Auburn Ravine/Coon Creek Ecosystem Restoration Plan (ERP) identifies potential restoration opportunities for an identified area using an ecosystem-based approach (Placer County 2002). The ERP identifies the goals and objectives of the restoration effort, provides

background information and baseline data regarding the project site, and discusses the specific ecosystem restoration goals, opportunities, and requirements for implementation within the ERP planning area. The proposed Project is consistent with the Auburn Ravine/Coon Creek Ecosystem Restoration Plan.

The February 2017 Coon Creek Watershed Assessment was multidisciplinary effort to characterize environmental conditions, assess disturbances, and develop and prioritize restoration opportunities for the Coon Creek watershed (Placer County 2017). The Coon Creek Watershed Assessment identifies projects and actions to mitigate hydrologic disturbances, rehabilitate physical processes, improve water quality and enhance habitat such that the basin can provide greater ecological function within current land use constraints. The proposed Project is consistent with the 2017 Coon Creek Watershed Assessment.

4.2.13 Mineral Resources

XII. MINERAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Environmental Setting

Mineral resources including sand, gravel, clay, stone, and gold, are found throughout Placer County. Sand and gravel are the primary mineral resources currently being extracted to satisfy the high demand liked to construction activity. Extensive gold deposits have been identified near Auburn, Ophir, and Gold Hill.

The California Department of Conservation, Division of Mines and Geology classifies the project location as Mineral Resource Zone (MRZ) 1 '*Areas where available geologic information indicates there is little likelihood for the presence of significant mineral resources.*' (CDOC 1995).

Potential Environmental Effects

a) ***No Impact.*** The Project would not impact the availability of mineral resources that are locally important or would be of value to the State.

b) ***No Impact.*** See response to item a).

4.2.14 Noise

XIII.NOISE—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

Placer County adopted a Noise Ordinance on 9 March, 2004. The Noise Ordinance is contained in Article 9.36 (Noise) of the Placer County Code. The primary purpose of the ordinance is to protect Placer County residents form unnecessary, excessive, and offensive sounds. The ordinance specifies sound limits for sensitive receptors. Sounds exceeding the exterior ambient sound level by 5 decibels (dB) at the property line of any affected sensitive receptor or exceeding the standards listed in Table 11, whichever is greater, are in violation of the ordinance.

Table 11. Placer County Noise Standards (Table 1 of Chapter 9, Article 9.36)

Sound Level Descriptor	**Daytime (7 am to 10 pm)**	**Nighttime(l0 pm to 7 am)**
Hourly Leq, dB	55	45
Maximum level, (Lmax) dB	70	65

Section 9.36.030.A of the Noise Ordinance lists several sources and activities that are exempt from the provisions of the ordinance. Item 7 from the list states:

"Construction (e.g., construction, alteration or repair activities) between the hours of six a.m. and eight p.m. Monday through Friday, and between the hours of eight a.m. and eight p. m. Saturday and Sunday Provided, however, that all construction equipment shall be fitted with factory installed muffling devices and that all construction equipment shall be maintained in good working order;"

Because the Project is not capacity increasing and would not result in an increase of the number of vehicles passing through the roadway corridor, the ambient noise condition is not expected to change as a result of the Project.

Potential Environmental Effects

a) ***(Construction Noise) Less Than Significant Impact.*** Construction activities could increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. These increases would be temporary. Agricultural and rural residential land uses occur adjacent to the Project area. The closest residence is located approximately 100 ft east of the Project area. While night and weekend construction is not scheduled, construction would comply with the hours and equipment requirements listed in Section 9.36.030.A.7 of the County Noise Ordinance.

(Operational Traffic Related Noise) No Impact. The Project does not increase the capacity of Crosby Herold Road. The post project noise levels in the Project vicinity will be substantially unchanged from the pre-project condition

b) ***Less Than Significant Impact.*** Project construction includes activities, such as operation of large pieces of equipment (e.g., heavy trucks) which may result in the periodic, temporary generation of ground-borne vibration. Because the Project would not expand the roadway or change the way in which it is used, an increase in ground-borne vibration associated with use of the road would not change from the current condition. Given the nature of any potential ground-borne vibration and given that any impacts would be temporary and periodic, potential impacts are less than significant.

c) ***No Impact.*** The Project is not traffic- or growth inducing and would not change the way in which the roadway is used. The Project would not contribute to a substantial permanent increase in the ambient noise level in the project vicinity.

d) ***Less Than Significant Impact.*** Construction activities would increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, weather, time of day, and other factors. However, these increases would be temporary. Construction would comply with the construction hours and equipment requirements listed in Section 9.36.030.A.7 of the County Noise Ordinance.

e) ***No Impact.*** The Project is not located within an airport land use plan area or within two miles of a public or public use airport.

f) ***No Impact***. The Project is not located within the vicinity of a private airstrip.

4.2.15 Population and Housing

XIV. POPULATION AND HOUSING—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

The Project is the replacement of an existing bridge and will not increase the capacity of the Crosby Herold Road.

Potential Environmental Effects

a) ***No Impact.***). The Project will not result in population growth, the displacement of existing any housing, or a need for new housing.

b) ***No Impact.*** See response to item a).

c) ***No Impact.*** See response to item a).

4.2.16 Public Services

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

Environmental Setting

The Placer County Sheriff provides general public safety and law enforcement services. The Placer County, Western Placer Fire Protection District provides fire protection services and emergency services. The County maintains public facilities including the project area roadways and bridges.

Potential Environmental Effects

a) ***No Impact.*** Replacement of the existing bridge would not increase human presence in the area. No new or physically altered governmental facilities would be needed. Crosby Herold Road will be closed to through traffic during construction. A detour route will be made available to maintain access to all residential properties affected by the closure. An approximately 5.5-mile detour will be established on local roads. Project construction activities would be coordinated with local law enforcement, emergency services providers, and school districts as needed.

4.2.17 Recreation

XVI. RECREATION:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

There are no designated recreation facilities within or adjacent to the proposed project area. An equestrian trail access occurs on the southeast side of the bridge and is currently gated. A new fence and gate access will be negotiated with the property owner. The County does not anticipate permanent right-of-way acquisition at this time.

Potential Environmental Effects

a) ***No Impact.*** The Project would not increase the use of existing parks in the area and does not include the construction of any recreational facilities.

b) ***No Impact.*** The Project does not include the construction of any recreational facilities and would not require the expansion of existing recreational facilities.

4.2.18 Transportation/Traffic

XVII. TRANSPORTATION/TRAFFIC—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Environmental Setting

The Project is located in a rural setting with an ADT less than 500 (CH2M Hill 2014). Crosby Herold Road is two lane rural minor collector. Traffic is mainly related to rural residential and agriculture access to the fields and houses along on Crosby Herold Road.

Potential Environmental Effects

a) ***No Impact.*** Replacement of the existing two-lane bridge would not change the amount of traffic on Crosby Herold Road because it is not a new development or growth inducing project.

b) ***No Impact.*** The bridge replacement would not change the amount of traffic on Crosby Herold Road.

c) ***No Impact.*** The Project would not result in a change in air traffic patterns.

d) ***No Impact.*** The Project objectives include improving roadway safety and compliance with the American Association of Highway and Transportation Officials (AASHTO) guidelines and Placer County standards.

e) ***Less Than Significant Impact.*** Crosby Herold Road will be closed to through traffic during construction. A detour route will be made available to maintain access to all residential properties affected by the closure. An approximately 5.5-mile detour will be established on local roads. Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable.

f) ***No Impact.*** The Project would not result in an increase in demand for parking in the vicinity of the Project.

g) ***No Impact.*** The Project is identified in the Placer County Capital Improvement Program (CIP) as project # 2972 (Placer County 2015). The CIP is coordinated with the Five-Year major review of the General Plan (including the Transportation and Circulation Element) and is also

included in the annual General Plan review. The Transportation and Circulation Element addresses alternative transportation systems.

4.2.19 Utilities/ Service Systems

XVIII. UTILITIES AND SERVICE SYSTEMS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

There are no utilities currently carried by the existing bridge. There are overhead utility lines crossing Doty Ravine. The existing lines may be relocated onto the new bridge or remain overhead on poles. If the lines are relocated onto the new bridge, they will be placed inside the bridge cells. Relocation of overhead utility lines may require the County, utility provider, or their contractors to trim or remove trees prior to construction.

Potential Environmental Effects

a) ***No Impact.*** The Project would not produce additional wastewater and would not exceed the applicable wastewater treatment requirements.

b) ***No Impact.*** The Project would not increase the demand on existing water or wastewater treatment facilities.

c) ***Less than Significant Impact.*** The Crosby Herold Road at *Doty Ravine Bridge Replacement Project – Roadway Drainage Technical Memorandum* prepared by CH2M Hill (2017) analyses the roadway drainage characteristics of the existing and proposed facilities. The Small Watersheds Method described in Section V-E, Hydrology Runoff Computation, of the Placer

County Storm Water Management Manual (SWMM) dated September 1, 1990 was used to calculate the peak flows for the 10-year, 25-year and 100-year storm events. Ten-year design storm peak flows were used to size the roadside ditches, and evaluate the onsite drainage facilities. The Small Watersheds Method is appropriate for determining peak runoff from basins of up to 200 acres.

Roadside drainage will be captured in over side drains on the roadway approaches, directing the flow away from the bridge. Drains will empty into RSP pads to prevent creek bank erosion and channel scour from roadside runoff. No RSP will be placed below the OHWM of Doty Ravine. Drainage from the bridge deck will be discharged through a series of scuppers that will outfall directly into Doty Ravine. In order to keep road runoff within the right-of-way, the roadside ditch northeast of the bridge will be put in a pipe starting approximately 130 feet north of the bridge. Project roadway drainage components are discussed generally below:

- **Roadside ditches** were sized to carry the 10-year design storm with natural grass lining. All ditches have a minimum freeboard of approximately 0.2-feet during the 10-year event.
- **Gutters:** All gutters on the project comply with the SWMM criteria for the 10-year, 25-year and 100-year events.
- **Inlets:** The project has one proposed inlet. The inlet complies with the SWMM criteria for the 10-year event.
- **Scuppers:** Drainage on the bridge deck will be provided by scuppers. The proposed scuppers will be 2-inches tall, and 12-inches long and be placed at 10-feet on center on both sides of the bridge.
- **Culverts and Storm Drain Pipes:** The Project has one existing culvert, one proposed culvert replacement, and multiple proposed storm drain pipes. The Project will replace the existing 12-inch corrugated metal pipe (CMP) cross culvert that drains runoff from the roadway surface and offsite runoff from the hillside to the east and an adjacent private parcel with a single 42-inch reinforced concrete pipe (RCP) culvert at a grade of 1.0%. The project also proposes installation of a network of 12-inch RCP storm drain pipes, grated drainage inlets, and storm drain manholes (SDMH) as part of the drainage system north of the bridge. The storm drain pipes are located based on guidelines in the LDM.

The memo concludes that all proposed ditches, inlets, gutters, scuppers, and storm drain pipes were evaluated against the criteria in the SWMM and the Placer County Land Development Manual (LDM) and found to be consistent. Drainage patterns will not substantially change from the pre- to post-project conditions. There are no anticipated impacts to upstream or downstream properties as a result of this project.

d) ***No Impact.*** The Project would not require water service.

e) ***No Impact.*** The Project would not produce wastewater.

f) ***No Impact.*** Solid waste generated by the Project would be limited to construction debris, including asphalt and concrete, generated by the excavation of existing roadway and construction of the proposed improvements. Solid waste disposal would occur in accordance with federal, state, and local regulations. Disposal would occur at permitted landfills. Therefore, the Project would not generate the need for new solid waste facilities.

g) ***No Impact.*** The Project would conform to all applicable state and federal solid waste regulations.

4.2.20 Wildfire

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

Environmental Setting

The Project is located in a 'moderate' Fire Hazard Severity Zone in the State Responsibility AREA (SRA) per the 2007 CAL FIRE Fire Hazard Severity Zones in SRA maps. These maps determine geographical areas where the State of California is primarily financially responsible for preventing and suppressing forest fires. Surrounding vegetation is primarily irrigated pasture and grassland, where fire danger is relatively low.

Potential Environmental Effects

a) ***Less than Significant.*** Crosby Herold Road will be closed to through traffic during construction. A detour route will be made available to maintain access to all residential properties affected by the closure. An approximately 5.5-mile detour will be established on local roads. Project construction activities would be coordinated with local law enforcement and emergency services providers.

b) ***Less than Significant.*** The Project area and surrounding area are designated as moderate fire severity zone. The project site and surrounding area is rural in character and does not include densely forested areas typically associated with wildfire, though the site and surrounding area includes areas of woodland and grassland that are moderately susceptible to fire. Slopes on the site and surrounding area are moderate and do not result in unique or unusual challenges to preventing or suppressing wildfires.

c) ***Less than Significant.*** The Project is the replacement of an existing bridge with a new structure to improve roadway safety, provide adequate freeboard to pass the 100-year storm event,

improve traffic flow, comply with the Placer County standards and the American Association of State Highway and Transportation Officials (AASHTO) design guidelines.

d) ***Less than Significant.*** The Project area and surrounding areas are designated as moderate fire severity zone. The Project does not include activities that would result in downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The project will not expose people or structures to significant risk related to wildfires.

4.2.21 Mandatory Findings of Significance

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

a) ***Potentially Significant Unless Mitigation Incorporated.*** Through the use of Best Management Practices and the mitigation measures noted previously, the Project will not degrade the quality of the environment.

b) ***Less than Significant.*** The Project is consistent with the General Plan and would not result in individually limited but collectively significant impacts. Therefore, the project would not cause any additional environmental effects or significantly contribute to a cumulative impact.

c) ***Less than Significant.*** The Project would not result in substantial direct or indirect adverse effects from noise, either during project construction or operation, nor would it result in impacts to air quality, water quality or utilities and public services. Therefore, the Project would not cause substantial adverse effects on human beings.

5. Determination

5.1 Environmental Factors Potentially Affected

This Initial Study has determined that in the absence of mitigation the proposed Project could have the potential to result in significant impacts associated with the factors checked below. Mitigation measures are identified in this Initial Study that would reduce all potentially significant impacts to less-than-significant levels.

___	Aesthetics	___	Land Use and Planning
___	Agricultural Resources	___	Mineral Resources
___	Air Quality	___	Noise
✓	Biological Resources	___	Population and Housing
✓	Cultural Resources	___	Public Services
___	Tribal Cultural Resources	___	Recreation
___	Energy	___	Transportation/Traffic
___	Geology and Soils	___	Utilities and Service Systems
___	Greenhouse Gas Emissions	___	Wildfire
___	Hazards and Hazardous Materials	✓	Mandatory Findings of Significance
___	Hydrology and Water Quality	___	None Identified

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the project-specific mitigation measures described in Section III have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

☐ I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have 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.

Signature: Jean Hanson **Date:** 8/23/19

Name and Title: Jean Hanson, P.E., Associate Civil Engineer

6. Report Preparation and References

6.1 Report Preparation

Placer County, Department of Public Works– CEQA Lead Agency

Jean Hanson, P.E.	Associate Civil Engineer

Sycamore Environmental Consultants, Inc.

Jeffery Little	Vice President, Project Manager
Adam Forbes	Planner
Aramis Respall	CAD/GIS Analyst

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Appendix A: Mitigation Monitoring and Reporting Plan

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MITIGATION MONITORING AND REPORTING PLAN
CROSBY HEROLD BRIDGE REPLACEMENT
OVER DOTY RAVINE PROJECT

CEQA LEAD AGENCY:

Placer County

PREPARED:

August 2019

DRAFT

Introduction

The Placer County Department of Public Works intends to replace the existing Crosby Herold Bridge over Doty Ravine located in unincorporated Placer County. The Project is located on Crosby Herold Road approximately 4 mi northeast of the City of Lincoln.

As described in the IS/MND, the Project itself incorporates a number of measures to minimize adverse effects on the environment. The IS/MND also identified several mitigation measures that are required to reduce potentially significant impacts to levels that are less than significant. This Mitigation Monitoring and Reporting Plan (MMRP) describes a program for ensuring that these mitigation measures are implemented in conjunction with the Project. Placer County, as the lead agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this MMRP. The County will designate a staff member to manage the MMRP. Duties of the staff member responsible for program coordination will include conducting routine inspections and reporting activities, coordinating with the Project construction contractor, coordinating with regulatory agencies, and ensuring enforcement measures are taken.

Regulatory Framework

California Public Resources Code Section 21081.6 and California Code of Regulations Title 14, Chapter 3, Section 15097 require public agencies to adopt mitigation monitoring or reporting plans when they approve projects under a MND. The reporting and monitoring plans must be adopted when a public agency makes its findings pursuant to CEQA so that the mitigation requirements can be made conditions of Project approval.

Format of This Plan

Mitigation measures are followed by an implementation description, the criteria used to determine the effectiveness of the mitigation, the timeframe for implementation, and the party responsible for monitoring the implementation of the measure. Implementation of mitigation measures is ultimately the responsibility of the County; during construction, the delegated responsibility is shared by County's contractors.

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
Biological Resources	BIO-1	**Central Valley Steelhead DPS:** The following will be implemented to reduce impacts to fish species in Doty Ravine. • The County will purchase mitigation credits at a NMFS approved bank at a ratio of 3:1 for impacts to 0.10 ac of Valley Oak Riparian habitat. • In-water construction activities will be restricted to the period between 1 May and the first qualifying rain event on or after 15 October (more than one half inch of precipitation in a 24-hour period), subject to the Streambed Alteration Agreement, unless CDFW provides approval of work outside that period. • All personnel that will be on-site during project construction for a period of more than one contiguous hour will be trained by a qualified biologist regarding habitat sensitivity, identification of Central Valley steelhead, and required practices. The training shall include the general measures that are being implemented to conserve Central Valley steelhead as they relate to the project, penalties for noncompliance, and boundaries of the construction area. A fact sheet or other supporting materials containing this information will be prepared and distributed. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures. • Riparian woodland vegetation will be avoided and preserved to the maximum extent practicable. ESA fencing will be placed between the limits of construction and the riparian habitat to prevent encroachment by construction equipment and personnel. The fencing can be installed after initial clearing of vegetation, but shall be installed prior to any further work on the Project. • A qualified biological monitor will be designated for the project and will visit the site a minimum of once per week to ensure that ESA fencing is intact and that activities are being conducted in accordance with the agency conditions of approval. • During construction, water quality will be protected by implementation of BMPs consistent with the current Caltrans Stormwater Quality Handbooks to minimize the potential for siltation and downstream sedimentation of Doty Ravine. • During demolition of the existing bridge, a cover or other protection measure will be placed over the creek bed to prevent falling debris from entering the ravine.	Preconstruction and Construction Phase	Placer County/ Qualified Biologist	Placer County/ Qualified Biologist	Prior to and during Construction	Proof of Purchase of mitigation credits. ESA Fencing Installed Weekly site visits by qualified biologist Doty Ravie channel covered prior to demolition. Training for Construction personnel. Effective BMPS implemented Maintain fish passage up and down stream of the Project area during construction. Use of acceptable fish screen if pumping needed.

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
		• Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channel areas to prevent transport of materials into the adjacent Doty Ravine. The preferred distance is a minimum 100 feet from the wetted width of the creek. A silt fence will be installed and adequate materials for spill cleanup will be kept on site. Construction vehicles and equipment will be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. • The temporary diversion structure will be designed so that fish passage is maintained up and down stream of the Project area. The diversion will not create an impassible barrier. The diversion would allow flows to pass through the existing channel under the bridge while maintaining water quality in the ravine. An open channel diversion will be used during construction to minimize impacts to Central Valley steelhead. The contractor will prepare a creek diversion and dewatering plan that complies with any applicable permit conditions. • The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities. If steelhead are observed, construction will be halted until they move out of the construction zone. If they remain in the construction zone for an extended period, NMFS will be contacted for further guidance. • If temporary diversion structures are constructed with natural materials (i.e., gravel), the material will be composed of washed, rounded, spawning-sized gravel between 0.4 to 4 inches in diameter. If gravel is left in place after the diversion is removed, it shall be manually spread out using hand tools, if necessary, to ensure adequate fish passage for all life stages. • If pumps are used to temporarily divert a stream to facilitate construction, an acceptable fish screen must be used to prevent entrainment or impingement of small fish. Potential contact between fish and pump will be minimized and/or avoided by constructing an open basin prior to commencing dewatering. • Construction of the bridge will take one season. All disturbed soils in the BSA will undergo erosion control treatment prior to October 15 and/or immediately after construction is terminated at the completion of the Project. Treatment includes temporary seeding and the application of sterile straw mulch or equivalent. Any disturbed soils on a gradient of over 30 percent will have erosion control blankets installed.					

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
Biological Resources	BIO-2	**Foothill Yellow-Legged Frog (FYLF)** • A preconstruction survey for FYLF will be conducted within 48 hours prior to work in the valley oak riparian habitat and Doty Ravine. • If a FYLF is observed in the active construction zone, construction will cease and a qualified biologist will be notified. Construction will resume when the biologist has either relocated the FYLF to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the FYLF has moved away from the construction zone.	Preconstruction and Construction Phase	Placer County/ Qualified Biologist	Placer County/ Qualified Biologist	Prior to and during Construction	Preconstruction survey
Biological Resources	BIO-3	**California Red-Legged Frog (CRLF)** • A qualified biologist shall conduct a preconstruction survey for CRLF within 48 hours prior to the onset of vegetation removal in the riparian habitat and Doty Ravine. If any CRLF are found, construction activities will stop in the riparian and aquatic habitats, and the USFWS and CDFW will be contacted immediately for further guidance. • Environmental awareness training will be conducted by a qualified biologist prior to the onset of project work for construction personnel to brief them on how to recognize CRLF, the importance of avoiding impacts to this species, and what to do if they are found. All personnel that will be on-site during project construction for a period of more than one contiguous hour will be trained by a qualified biologist. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures. • All vegetation scheduled for removal in the valley oak riparian forest and Doty Ravine will be removed by hand or with hand-held power tools, including chainsaws. To minimize the potential of crushing a CRLF, mechanized vehicles will not be driven through the riparian corridor to clear the brush. After the brush has been removed, and a survey confirms the absence of CRLF, stumps and roots may be removed using mechanized vehicles and equipment. Mechanized vehicles will be operated from the top of the bank to the extent feasible. • A qualified biologist will be present during grubbing and clearing activities in the riparian habitat to monitor for CRLF. • ESA fencing will be placed between the limits of construction and the riparian habitat to prevent encroachment by construction equipment and personnel. The fencing can be installed after initial clearing of vegetation, but shall be installed prior to any further work on the Project. Vehicles will not be allowed to park in, nor will equipment be stored in the ESA. No	Preconstruction and Construction Phase	Placer County/ Qualified Biologist	Placer County/ Qualified Biologist	Prior to and during Construction	Preconstruction survey Removal of vegetation using hand held tools only. Training for Construction personnel. ESA Fencing Installed Weekly site visits by qualified biologist Approved Creek Diversion Plan Monitoring by Qualified Biologist Monitoring by County Inspector Proof of Purchase of mitigation credits. Doty Ravine channel covered

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
		storage of oil, gasoline, or other substances will be permitted in the ESA. No vegetation removal or ground disturbing activities will be permitted in the ESA. Signs will be placed on the exclusionary fencing that state "Environmentally Sensitive Area – Area Off Limits." • The contractor will prepare a creek diversion plan that complies with any applicable permit conditions. A qualified biologist will conduct a survey of the area to be diverted prior to diversion installation. The qualified biologist will be present during installation and removal of the diversion structure and dewatering activities. • Plastic mono-filament netting (erosion control matting) or similar material containing netting shall not be used at the project site because the CRLF or other animals may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds. • If CRLF are found at any time during project work, construction will stop in the riparian and aquatic habitats, and the USFWS and CDFW will be contacted immediately for further guidance. • To ensure compliance with the project's avoidance and minimization measures, a County inspector will be on-site whenever in-water work occurs. The County construction inspector will make recommendations to the construction personnel, as needed, to comply with all project implementation restrictions and guidelines. The County construction inspector will be responsible for ensuring that the contractor maintains the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources. A qualified biologist will be available during the construction period to assist the County construction inspector if CRLF are found and to answer questions and make recommendations regarding implementation of CRLF avoidance and minimization measures. • Upon completion of construction activities, any barriers to flow shall be removed to allow flow to resume with the least disturbance to the substrate. • construction activities from the aquatic habitat that is not to be affected. Temporary orange construction fencing or equivalent will be installed to define the limits of the ESA.					prior to demolition. Effective BMPS implemented Maintain fish passage up and down stream of the Project area during construction. Use of acceptable fish screen if pumping needed. Removal of any project related barriers to flow
Biological Resources	BIO-4	**Migratory Birds and Birds of Prey**	Pre-Construction and	Placer County/ Contractor	Placer Count/	Once Prior to Construction	Preconstruction survey

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
		Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 15 February to 1 September **Swallows:** In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Measures should be taken to prevent establishment of cliff swallow nests prior to construction. Techniques to prevent nest establishment include using exclusion devices, removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation, or perform any combination of these. This can be done by: • The contractor can visit the site weekly and remove partially completed nests using either hand tools or high-pressure water; and/or • Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins. **Birds of Prey and Birds Protected by the Migratory Bird Treaty Act** • If construction begins outside the 15 February to 1 September breeding season, there will be no need to conduct a preconstruction survey for active nests. • Trees scheduled for removal should be removed during the non-breeding season from 2 September to 14 February. Vegetation removal includes trees and vegetation within the stream zone. Within the riparian community, vegetation will be removed using hand tools, including chain saws and mowers. • If construction or vegetation removal begins between 15 February and 1 September, a biologist shall conduct a survey for active bird of prey nests and rookeries within 500 ft and active nests of all other MBTA-protected birds within 100 ft of the BSA from publicly accessible areas within two weeks prior to construction. The measures listed below shall be implemented based on the survey results. *No Active Nests Found:* • If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.	Construction Phases		Qualified Biologist	and During Construction	Exclude bridge nesters ESA as needed

<table>
<tr><th>Environmental Factor</th><th>Mitigation Measure #</th><th>Environmental Protection Measures</th><th>Timing</th><th>Implementing Party</th><th>Monitoring Party</th><th>Frequency & Duration</th><th>Performance Criteria</th></tr>
<tr><td></td><td></td><td>
Active Nests Found:

If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:
<ol type="1">
Stop all work within a 100-ft radius of the discovery.
Notify the Engineer and CDFW.
Do not resume work within the 100-ft radius until authorized.

The biologist shall establish a minimum 250-ft Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-ft ESA around the nest if the nest is of an MBTA bird other than a bird of prey.

Bird Species Protection Areas
<table>
<tr><th>Protected Bird Type</th><th>Size of Protection Area (ESA)</th></tr>
<tr><td>Bird of prey or rookery</td><td>250 ft no-disturbance buffer</td></tr>
<tr><td>MBTA protected bird (not bird of prey)</td><td>100 ft no-disturbance buffer</td></tr>
</table>

Activity in the ESA will be restricted as follows:
<ol type="1">
Do not enter the ESA unless authorized.
If the ESA is breached, immediately:
<ol type="a">
Secure the area and stop all operations within 60 feet of the ESA boundary.
Notify the Engineer and CDFW.

If the ESA is damaged, County determines what efforts are necessary to remedy the damage and who performs the remedy.

No construction activity will be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.
The size of an ESA may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring and CDFW concurs that the ESA can be reduced. Reduction of ESA size depends on the species of bird, the location of the nest relative to

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Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
		the project, project activities during the time the nest is active, and other project-specific factors. • Between 15 February and 1 September, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented. • If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.					
Biological Resources	BIO-5	**Bats** Within the year prior to construction, the bridge shall be inspected for bats and/or bat sign. If evidence of bats is observed, exclusion measures using one-way exits shall be implemented. Bat exclusion must be complete prior to installation of netting for bird exclusion. • Exclusion devices shall be installed between 1 September and 1 November, or between 1 March and 1 April, which is outside of the maternity and hibernation season. • If it is determined that the bats are not using the bridge as a maternity or hibernation site, exclusion devices may be installed at any time. • Exclusion devices shall remain in place until demolition of the bridge. If exclusion devices are not installed during the specified windows, a survey shall be conducted within 2 weeks prior to construction to determine bat use of the bridge. • If no bats and/or bat sign is observed, no further avoidance and minimization measures are necessary. • If it is determined that bats are using the bridge as a maternity or hibernation roost, CDFW shall be contacted to determine an appropriate avoidance buffer. o The avoidance buffer may be reduced if a qualified biologist monitors the construction activities and determines that no disturbance to the roost is occurring. Reduction of the buffer depends on the species of bat, the location of the roost relative to project activities, activities during the time the roost is active, and other project-specific conditions.	Pre-Construction	Placer County	Qualified Biologist	Once Prior to Construction	Preconstruction survey Bat exclusion prior to netting for bird exclusion. CDFW Coordination as needed

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
		○ No work shall occur in the buffers until it is determined that the bats have left on their own, or until the end of the hibernation or maternity season, at which time exclusion devices can be installed. • If it is determined that the bats are not using the bridge as a maternity or hibernation site, exclusion devices shall be installed a minimum of 48 hours prior to construction to ensure the bats have time to leave before construction begins. • Exclusion devices shall remain in place until demolition of the bridge.					
Biological Resources	BIO-6	**Valley Oak Riparian** • Tree removal will be minimized to the extent possible. • An Environmentally sensitive area (ESA) will be established to protect the riparian community outside the impact area. • The ESA will be fenced or otherwise marked along the limits of construction adjacent to the riparian community to exclude construction activities from avoided habitat. The ESA fencing can be installed after initial clearing of vegetation, but shall be installed prior to any further work on the Project. • Trucks and other vehicles will not be allowed to park within, nor shall equipment be stored within the ESA. • No vegetation removal or ground disturbing activities will be permitted within the ESA. • Placer County will obtain a tree permit prior to removal of the native trees. Placer County will pay the in-lieu fee to the County tree preservation fund for native trees removed.	Pre-Construction and Construction Phases	Placer County/ Contractor	Placer County	Prior to and during Construction	Tree Removal Permit and Proof of Payment of mitigation fees. Establish ESA
Biological Resources	BIO-7	**Doty Ravine** • During construction, water quality will be protected by implementation of BMPs consistent with the Caltrans Stormwater Quality Handbooks (Caltrans 2011) to minimize the potential for siltation and downstream sedimentation of Doty Ravine. • In-water construction activities will be restricted to the period between 1 May and the first qualifying rain event on or after 15 October (more than one half inch of precipitation in a 24-hour period), subject to the Streambed	Pre-Construction	Placer County/ Contractor	Placer County	Prior to Construction	Effective BMPS implemented Post Construction reseeding of disturbed project areas.

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
		Alteration Agreement, unless CDFW provides approval of work outside that period. • Water diversion in Doty Ravine will be conducted in accordance with the County of Placer Stormwater Management Plan (SWMP; Revised June 2004) and the Placer County Grading and Erosion Prevention Ordinance (Placer County 2008). • Areas temporarily disturbed on the banks of Doty Ravine will be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species in accordance with Appendix E of the Project NES (Sycamore Environmental 2017a). Reseeded areas will be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer will determine the specifications needed for erosion control fabric (e.g., sheer strength) based on anticipated maximum flow velocities and soil types. The seed type will consist of commercially available native grass and herbaceous species as described in Appendix E. No seed of nonnative species will be used unless certified to be sterile.					
Biological Resources	BIO-8	**Seasonal Wetlands & Ditch** • ESA fencing will be placed between the limits of construction and SW 2, SW 3, and Ditch 2 to prevent encroachment by construction equipment and personnel. The ESA fencing will be in place prior to commencement of construction as verified by Placer County staff. All equipment will be stored, fueled and maintained in a vehicle staging area 300 feet or the maximum distance possible from nay wetland feature and no closer than 200 feet unless a bermed (no ground disturbance) and lined refueling area is constructed and hazardous-material absorbent pads are available in the event of a spill. • Temporarily disturbed areas will be revegetated and reseeded in accordance with the Revegetation Planting and Erosion Control Specifications in Appendix E of the Project NES (Sycamore Environmental 2017a). • The County will mitigate the permanent loss SW 1 at a 1:1 ratio by purchasing credits at a Corps approved mitigation bank or if approved by paying into the U.S. Army Corp of Engineers, Sacramento District California In-Lieu Fee Program.	Pre-Construction	Placer County/ Contractor	Placer County	Prior to Construction	Proof of Purchase of mitigation credits. Installation of ESA Fencing Effective BMPS implemented Post Construction reseeding of disturbed project areas.
Cultural Resources	CULT-1	**Unanticipated discoveries** • The Improvement Plans shall include a note stating that if any archaeological artifacts, exotic rock (non-native), or unusual amounts of	Construction Phases	Placer County/ Contractor	Placer County	Prior to Construction	Note regarding cultural resources

Environmental Factor	Mitigation Measure #	Environmental Protection Measures	Timing	Implementing Party	Monitoring Party	Frequency & Duration	Performance Criteria
		shell or bone are uncovered during any on-site construction activities, all work must stop immediately in the area and a qualified archaeologist retained to evaluate the deposit. The Placer County Planning Services Division and Department of Museums must all be contacted for review of the archaeological find(s). • If the discovery consists of human remains, the Placer County Coroner and Native American Heritage Commission must also be contacted. Work in the area may only proceed after authorization is granted the Placer County Planning Services Division. Following a review of the new find and consultation with appropriate experts, if necessary, the authority to proceed may be accompanied by the addition of development requirements that provide protection of the site and/or additional mitigation measures necessary to address the unique or sensitive nature of the site.					in Improvement Plans