Capell Creek Storm Damage Project

NAPA COUNTY, CALIFORNIA
STATE ROUTE 121 – NAP PM 20.6
EA 04-2J570; Project ID 04-1400-0530

Initial Study with Negative Declaration

Prepared by the
California Department of Transportation

May 2017
General Information about this Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS) with Negative Declaration, which examines the potential environmental impact of the proposed State Route (SR) 121 Capell Creek Storm Damage project in Napa County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This document explains why the project is being proposed, how the existing environment could be affected by the project, the potential impacts of each proposed activity, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.

- Additional copies of this document and related technical studies are available for review at the following locations:

  Caltrans District 4 Office, 111 Grand Avenue, Oakland, CA 94612

  Napa City-County Library, 580 Coombs Street, Napa, CA 94559

You can also download or view the report online at http://www.dot.ca.gov/dist4/envdocs.htm

- We’d like to hear what you think. The comment period begins on May 1, 2017. If you have any comments about the proposed project, please send your written comments to Caltrans by the deadline of June 1, 2017.

- Send your comments via post mail to:

  California Department of Transportation, District 4, Attn: Wahida Rashid, 111 Grand Avenue, MS 8-B, Oakland, CA 94612.

- Send comments via email to: Wahida.Rashid@dot.ca.gov

- A public open house/map display can be requested in writing by no later than May 15, 2017.

- Be sure to send project comments by the deadline: June 1, 2017.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may (1) give environmental approval to the proposed project and selected the preferred alternative, (2) do additional environmental studies, or (3) abandon the project. Caltrans may design and construct all or part of the project if the project is given environmental approval and funding is obtained.
INITIAL STUDY WITH PROPOSED NEGATIVE DECLARATION

<table>
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<th>Dist.-Co.-Rte.</th>
<th>NAP – 121 – 20.6</th>
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<tr>
<td>Project Title:</td>
<td>Capell Creek Storm Damage Project</td>
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<tr>
<td>Lead agency name and address:</td>
<td>California Department of Transportation 111 Grand Ave., Oakland, CA 94612</td>
<td></td>
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<tr>
<td>Contact person and phone number:</td>
<td>Wahida Rashid, Senior Environmental Planner (510) 286-5935</td>
<td></td>
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<tr>
<td>Project Location:</td>
<td>Napa County, California</td>
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<td>General plan description:</td>
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<td>Zoning:</td>
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<tr>
<td>Surrounding land uses and setting; briefly describe the project’s surroundings:</td>
<td>Rural</td>
<td></td>
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| Other public agencies whose approval is required (e.g., environmental permits); CEQA Responsible Agencies are denoted with a *: | • Biological Opinion from the U.S. Fish and Wildlife Service  
• Lake and Streambed Alteration Agreement from California Department of Fish and Wildlife*  
• Clean Water Act 404 Permit from the U.S. Army Corps of Engineers  
• Clean Water Act 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board*  
• California Transportation Commission* |                                    |

Additional copies of this document, as well as the technical studies this document relies on, are available for review at the District office, 111 Grand Ave., Oakland, CA 94612 and at http://www.dot.ca.gov/dist4/envdocs.htm

Yolanda Rivera

4/21/17

Stefan Galvez-Abadia
Date
Chief, Office of Environmental Analysis
California Department of Transportation, District 4, Oakland

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to California Department of Transportation, Attn: Wahida Rashid, Environmental Planning, 111 Grand Avenue, MS 8-B, Oakland, CA 94612, or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.
Project Information

Location

The California Department of Transportation (Caltrans) is proposing the Capell Creek Storm Damage Project on State Route (SR) 121 in rural Napa County, California, at Post Mile (PM) 20.6, which is 1.5 miles south of Route 128. The proposal includes two viable alternatives, referred to as the Build Alternative and No-Build Alternative. The Build Alternative proposes to remove and upgrade an undersized and failing drainage system at PM 20.61, deemed Location 1, and to repair the damaged embankment and failing drainage system at PM 20.64, deemed Location 2. The No-Build Alternative proposes no changes.

Existing Facility

There are two existing drainage systems within project limits, located at PM 20.61 (Location 1) and PM 20.64 (Location 2). Both drainage systems collect surface runoff from the hills east of the roadway toward Capell Creek about 40 ft west of the roadway. The existing drainage system at Location 1 includes a 55 ft long, 15 inch corrugated metal pipe (CMP) cross culvert. The existing drainage system at Location 2 includes a 55 ft long, 42 inch CMP cross culvert. The pipe inlet includes an L-shaped headwall about 5 ft high just east of the roadway and a concrete slab at the pipe outlet just west of the roadway. The existing embankment just west of the roadway is very steep, with up to 1:1 side slopes. The terrain throughout the corridor is rolling and mountainous, with dense vegetation on both sides of the roadway. The existing roadway is approximately 26 ft wide and provides 11 ft lanes and 0 to 2 ft shoulders. The roadway pavement section was recently rehabilitated in 2012. There are no existing dikes or safety barriers within project limits. There is an existing flat area at PM 20.5 adjacent to the westbound lane which can be utilized for a staging area for equipment storage and stockpiling temporary materials. There is a driveway to a private residence adjacent to the eastbound lane approximately 100 ft north of the cross culvert at Location 2. The State right of way extends approximately 30 to 60 ft from the existing edge of improvement on both sides of the roadway.

Purpose and Need

The purpose of this project is to protect the embankment slopes and to eliminate any further washout damage to the slopes at Locations 1 and 2. At Location 1, the existing slope erosion damage at both the upstream and downstream ends needs to be repaired. The existing 15-inch-diameter corrugated metal pipe (CMP) culvert needs to be replaced with a larger pipe culvert to handle the expected storm water volume.

At Location 2, as a result of surface runoff, the eroded downstream embankment needs to be restored. The existing 42-inch-diameter CMP needs to be repaired due to a corroded and partially missing bottom of the culvert. Heavy rains can further damage the existing drainage facilities and erode the embankment slopes at Locations 1 and 2, which could potentially cause the roadway to fail without warning.
At Location 1, slope erosion has created a large void, approximately 9 feet deep at the pipe outlet on the embankment slope near Capell Creek. In addition, the existing cross culvert is corroded, cracked, and cannot handle expected storm water volume.

At Location 2, there is slope erosion damage at the cross culvert and the embankment slope near Capell Creek. The existing concrete slab at the pipe outfall has collapsed and it no longer provides slope protection. The existing cross culvert is corroded, cracked, and has a damaged invert. Surface runoff has caused embankment slope washout. Two trees on the embankment slope have been greatly undermined with the roots mostly exposed.

**Project Funding and Programming**

The project is funded from the 2016 State Highway Operation and Protection Program (SHOPP), under the Program code 20.10.201.131 for major damage restoration-permanent restoration. The project capital outlay cost (escalated to mid-construction of 2019) is $1,686,000.
Figure 1: Project Vicinity and Location Map
Project Description

At Location 1 (PM 20.61) the existing undersized 15-inch CMP cross culvert will be replaced with a 24-inch-diameter pipe. In addition, a drop inlet structure will be placed outside the edge of shoulder in the northbound direction and the slope regraded. On the creek side (southbound side), the damaged embankment and pipe outfall will be repaired with ¼ ton class rock slope protection (RSP) and No. 2 backing RSP.

At Location 2 (PM 20.64) the slope erosion on the creek side is proposed to be repaired by rebuilding the embankment with ¼ ton class RSP and No. 2 backing RSP with a row of gabion baskets (i.e., a retaining wall made from wire boxes filled with stones) at the top of the RSP along with a guard rail. In addition, the existing 42-inch-diameter CMP will be lined with a 36-inch pipe liner. The damaged embankment at the outfall of the pipe will be repaired with light RSP and a concrete pad on top towards the creek side.

This project as proposed is only considering two alternatives; 1.) a Build Alternative, 2.) a No-Build Alternative. The No-Build option will only serve to postpone the needed repairs.

Project Components

Vegetation Removal

Vegetation will be cleared only where necessary and will be cut above original ground level, except in areas that will be excavated for permanent construction. Plant stems and tree stumps will be ground down, where required, to a sufficient depth in order to proceed with subsequent construction activities. Cleared vegetation will be removed from the work site.

A biologist will be present on-site during initial vegetation-clearing and ground-disturbing activities to inspect for special-status species and nesting birds, to provide education training, and to verify that all clearing and grubbing is done according to Caltrans requirements and applicable permits.

Vegetation clearing will be confined to the project area (i.e., the areas that will be directly impacted by the proposed project, including staging areas necessary to facilitate construction activities) (Figure 1-2). Environmentally sensitive areas (ESAs) that can be avoided during construction will be delineated with ESA fencing or flagging as appropriate to exclude construction activities from these locations. Vegetation removal and excavation of the embankment, including clearing and grubbing, will be completed with chainsaws, other hand tools, grinders, and excavators.
**EMBANKMENT REPAIR AND DRAINAGE IMPROVEMENTS**

At Location 1, the embankment repair and drainage improvements will entail the following steps:

- Remove existing 15-inch cross culvert by trenching and removing from roadway.
- Place new 24-inch cross culvert and associated drop inlet and flared end section.
- Recontour around new drainage system.
- Remove debris at bottom of the erosion area at pipe outfall and place RSP fabric.
- Place one layer of No. 2 Class RSP and fill with ¼ ton Class RSP by dumping and spreading in layers with excavators or other suitable equipment.

At Location 2, the drainage improvements will entail the following steps:

- Place 36-inch pipe liner inside existing 42-inch corrugated steel pipe.
- Remove debris at bottom of erosion area and place RSP fabric.
- Place Light Class RSP by dumping and spreading in layers with excavators or other suitable equipment.

At Location 2, the embankment repair will entail the following steps:

- About 15 feet north of existing 42-inch pipe outfall, excavate failed embankment, including removal of large trees.
- Place RSP fabric and one layer of No. 2 Class RSP with additional ¼ ton Class RSP by dumping and spreading in layers with excavators or other suitable equipment.
- Grout around top of rocks with cement to create a level surface for row of gabion baskets at top of RSP.
- Assemble and place gabion baskets on cement grout.
- Backfill the void between the gabion basket wall and roadway with suitable backfill material.
- Place guardrail with associated vegetation control at edge of pavement.
Dewatering

The project will require dewatering and a temporary partial diversion system. This would divert flows in a portion of the width of the Capell Creek streambed. The temporary partial diversion system and dimensions will be determined when the site’s hydrology is better studied. Caltrans will determine the allowable diversion berm material options after weighing environmental and engineering considerations. For example, the berm may be constructed of gravel bags covered with a plastic sheet. The diversion would include a dam, such as a gravel bag berm, to isolate the portion of the streambed that is near the work area. The surface under the berm would likely need to be leveled.

Construction Staging

The existing pullout area beside the roadway at PM 20.5 will be used for equipment storage and stockpiling temporary materials. Materials containing possible contaminants, such as fuels, lubricants, oils, or solvents, will be stored offsite or in sealable containers at designated locations per applicable permits and Caltrans requirements.

Traffic Controls

A one-way traffic control system will be installed as needed for construction staging. This system will enable northbound and southbound traffic to alternate use of one open lane through the project area while the other lane is closed for construction purposes. No temporary construction access roads are proposed. One-way traffic control includes temporary signals, temporary striping and k-rail along the embankment reconstruction.

Complete highway night closures of SR 121 are proposed for approximately 12 days in order to repair/replace existing culverts and to reconstruct the embankment. Public traffic will be detoured to SR 29 and SR 128 during these closures. The general public will be properly notified through road signage and official notifications.

There is an entrance to an existing driveway on the east side of SR 121, just north of Location 2 within the project area. Efforts will be made to provide access to and from this driveway at all times during construction.

Construction Site Best Management Practices (BMPs)

Standard temporary erosion control measures will be implemented on all disturbed soil areas. All state/federal waters will be protected from sediment and pollutant discharges in accordance with applicable laws, permits, and Caltrans standard requirements. The total disturbed soil area is expected to be less than one acre.
BMPs will be implemented to minimize temporary water quality impacts resulting from the construction activities. BMPs will include the measures of soil stabilization, sediment control, wind erosion control, tracking control, non-storm water management, and waste management/materials pollution control.

Contours and vegetation cover will be reestablished at completion of construction. All disturbed soil areas will be stabilized. All construction spoils and debris will be environmentally cleared for handling and disposal, and will be hauled to a permitted disposal site.

**Utilities Relocation**

It is not anticipated that the project will impact any utilities. Utility verification and coordination will be required throughout the design phase to determine whether there are conflicting utilities to be relocated. If any utilities are determined to require relocation, it is anticipated that all associated utility features will be relocated prior to construction, and the utility relocation work areas will be within the boundaries of the project area as shown on Figure 1-2.

**Site Cleanup and Restoration**

All construction-related materials, including ESA fences, will be removed after construction activities are completed. All permanently and temporarily disturbed areas will be restored to preconstruction conditions, as feasible, and revegetated with appropriate native species.

**Construction Schedule**

Construction activity will take place during daytime and nighttime hours. Temporary restricted public access will be required during the night for construction activity, including full highway closure for approximately 12 nights, depending on potential conflicts between work requirements of the contractor and operational hours for the public.

Construction in the creek, on the southbound side embankment, and in drainage facilities will be limited to the dry season (typically considered June 15 to October 15). This shortened work window is utilized to minimize potential impacts to biological resources and minimize erosion. The total working days within the creek are estimated to be 12 days, with the majority of work being conducted during the night closures.

All nest avoidance requirements for the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC) will be observed. As such, all tree removal will be scheduled between September 1 and
February 15 in order to avoid the bird nesting season. If for any reason this schedule cannot be met, a biologist will survey for nesting birds prior to tree removal.

The project is expected to start in early 2019. Construction activities are expected to be completed in one construction season. The general sequence of construction activities will be as follows (note that some items of work can be constructed concurrently):

- Install construction area signs
- Install traffic control system
- Clear and grub
- Set up staging area
- Install associated BMPs
- Trench across roadway to remove pipe at Location 1
- Place new drainage system at Location 1
- Fill hole at new pipe outfall at Location 1 with RSP
- Place pipe liner at Location 2 and RSP at pipe outfall
- Reconstruct embankment slope at Location 2 with RSP, gabion, and guardrail
- Implement permanent erosion control, site cleanup, and revegetation of all temporary disturbance areas
- Remove construction area signs
Construction

The staging area for construction materials is within Caltrans ROW and would not be paved. Prior to using any staging areas not within the areas shown on the plans, the contractor must obtain clearance from the appropriate permitting agencies and comply with all applicable laws, statutes, ordinances, and regulations. See Photo 4 below which shows the proposed staging area.

Caltrans estimates that construction would occur during the dry season between April 15th and October 15th. This is a period of six months, which translates to approximately 120 working days. Most of the construction would be completed at night to avoid the high traffic volumes during the day.

In general, construction work would occur in the following order:

- Install Environmentally Sensitive Area (ESA) fencing;
- Clear and grub;
- Roadway widening where necessary;
- Electrical trenching;
- Set up temporary lane closures;
- Close the median for construction of central island and splitter islands;
- Overlay the existing pavement section.

Detour

There will be a full road closure for 12 nights spread out over one month. The full closure on Route 121 will be for non-local and non-emergency traffic. Local residents and emergency services can be escorted by CHP through the project site during full closures when necessary. This coordination with local residents has occurred for similar roadway closures on Route 121 this year.

The proposed hours of full closure are from 19:00 to 05:00 from Monday to Thursday, from 19:00 to 08:00 on Fridays, and from 20:00 to 08:00 on Saturdays and Sundays. The proposed closure will detour traffic as shown in the attached Conceptual Detour Exhibit.

The Napa County Public Works has reviewed and concurred with these proposed closure hours. Caltrans will continue to coordinate with local stakeholders regarding closure dates and hours.

The proposed dates of closure is between June 15, 2019 and October 15, 2019, in order to comply with environmental permits requirements. Actual date of closures will be coordinated with local stakeholders as well as dates for other major highway closures and special events in Napa County.


Right of Way Requirements

All proposed activities are to remain within Caltrans ROW. There is no additional ROW acquisition anticipated. The project would not result in the displacement of residents or businesses.
A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 15 for additional information.

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

B. DETERMINATION

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

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<th>Signature:</th>
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I find that although the proposed 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.

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<th>Printed Name:</th>
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Proposed Negative Declaration
Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to repair a damaged embankment and improve drainage systems of two culverts on SR 121 at Post Mile 20.6 in unincorporated Napa County.

Determination

This Initial Study (IS) with proposed Negative Declaration (ND) is included to give notice to interested agencies and the public that it is Caltrans’ intent to adopt an ND for this project. This does not mean that Caltrans’ decision regarding the project is final. This ND is subject to change based on comments received by interested agencies and the public.

The Department has prepared an IS for this project and pending public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no significant impact on Agriculture/Forestry, Cultural Resources, Geology/Soils, Land Use/Planning, Mineral Resources, Population/Housing, Public Services, and Recreation.

In addition, the proposed project would have less than significant impacts to Aesthetics, Air Quality, Biological Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Transportation/Traffic, Tribal Cultural Resources, and Utilities/Service Systems.

Melanie Brent
Deputy District Director, Environmental Planning and Engineering
District 4
California Department of Transportation
CEQA Environmental Checklist

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance. Please note that content-based changes to the text from the draft environmental document to this final environmental document will be noted with a line in the right hand margin.

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact with Mitigation</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
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</table>

**I. AESTHETICS:** Would the project:

a) Have a substantial adverse effect on a scenic vista

  - [ ]
  - [ ]
  - [ ]
  - [X]

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

  - [ ]
  - [ ]
  - [ ]
  - [X]

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

  - [ ]
  - [ ]
  - [ ]
  - [X]

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

  - [ ]
  - [ ]
  - [ ]
  - [X]

*Visual Resources*

SR 121 is not listed as an "Eligible or Officially Designated Scenic Highway".

Scenic Resources such as unique or outstanding trees, rock outcrops, historic buildings or other structures will not be adversely affected by the proposed project. The roadside landscape is a
characterized as a naturalized Valley Oak Woodland with a riparian habitat. Existing vegetation includes mature native riparian and upland trees, shrubs and grasses.

While it has been determined that one native oak tree will need to be removed to construct the embankment repair at Location 2, the tree is common along SR 121 adjacent to Capell Creek and would be considered part of a characteristic landscape. Characteristic landscape is one that is abundant. Therefore, it would not be considered a unique specimen of tree such as those displaying outstanding features of form or age. The Oak is neither a landmark tree nor does it have historical value.

Trees growing along State highways represent important resources, and it is policy to replant trees that are damaged or removed by State highway construction activity. Such measures would help minimize the change in the landscape and visual impact of removing existing trees. Landscape resources removed from State right of way during project construction are to be replaced to the greatest extent feasible within the project limits.

With replacement planting of trees for both visual and environmental requirements, changes in the appearance of the project area are expected to be minimal and no adverse visual impacts are anticipated. Temporary minor visual impacts will be seen until the reestablishment of native vegetation.
II. AGRICULTURE AND FOREST RESOURCES: 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 the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

<table>
<thead>
<tr>
<th>Impact Description</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
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<tr>
<td>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>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))?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
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<tr>
<td>d) Result in the loss of forest land or conversion of forest land to non-forest use?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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The project would not convert farmland to non-agricultural use. The land surrounding the project area is not zoned for agricultural. The proposed project would stay entirely within Caltrans ROW and would not impact current agricultural uses. There is no land under the Williamson Act in the project area. The project area is not zoned as forest land or timberland, nor is it zoned for timberland production.
### 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:

<table>
<thead>
<tr>
<th>Question</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact with Mitigation</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>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)?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>d) Expose sensitive receptors to substantial pollutant concentrations?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>e) Create objectionable odors affecting a substantial number of people?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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The proposed work is exempt from the requirement of air quality conformity determination per Code of Federal Regulations (40 CFR §93.126). This project will not result in impacts to resources related to air quality.

Short term air quality effects include the release of airborne dust caused by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include carbon monoxide (CO), nitrogen oxide (NO\textsubscript{x}), volatile organic compounds (VOCs), directly emitted PM\textsubscript{10} (particulate matter less than 10 microns in diameter) and PM\textsubscript{2.5} (particulate matter less than 2.5 microns in diameter), and toxic air contaminants (TACs). Construction activities are expected to increase traffic congestion in the area, resulting in increases in emissions from traffic during the delays. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Dust from soil would be generated by this project during grinding, paving, excavation, debris transport, and vehicle and equipment traffic. Material or waste stockpiles, such as excavated soil, may also be sources of dust. Caltrans Standard Specifications for dust control and job site management would minimize or eliminate discharge into the air.

These procedures ensure that there would be no significant impact.
Avoidance and Minimization Measures

The following measures would reduce air quality impacts resulting from construction activities:

The construction contractor must comply with the Caltrans’ Standard Specifications in Section 14-9 (2015).

Section 14-9-02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

Section 10-5 is directed at controlling dust. If dust calming materials other than water are to be used, material specifications are described in Section 18. Water or a dust palliative will be applied to the site and equipment as often as necessary to control airborne dust emissions. Where dust is a problem during dry weather or mud tracking is a problem during wet weather, a stabilized access road will be designed to support the heaviest vehicles and equipment that will be used.

Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by CA Code of Regulations Title 17, Section 93114. Entrances and exits to and from unpaved staging areas will be stabilized and properly maintained. Stockpiles will be covered and utilize berms to prevent discharge of dust.

All transported loads of soils and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize emission of dust during transportation.

Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to reduce PM emissions. Sweepers will be available onsite for housekeeping, as needed.

To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times. In an anticipated storm event, disturbed areas which require temporary protection will be applied with hydraulic mulch until permanent vegetation is established. As temporarily protected areas will be re-disturbed for further construction, this process is repeated prior to every storm event. Vegetation will be planted as soon as practical after grading to reduce windblown PM in the area.
Climate Change

Climate change is analyzed in the Greenhouse Gases Section of this document. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. As stated on FHWA’s climate change website (http://www.fhwa.dot.gov/hep/climate/index.htm), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will aid decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

Because there have been more requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this environmental document and may be used to inform the National Environmental Policy Act (NEPA) decision. The four strategies set forth by FHWA to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours travelled.

See Section VII of this document for further information on climate change and greenhouse gas emissions.

IV. BIOLOGICAL RESOURCES: Would the project:

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
</table>

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

☐ ☐ ☒ ☐

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife 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? ☒ ☐ ☐ ☐ ☐

The BSA that was surveyed to evaluate the habitat and identify and quantify the natural resources potentially affected by the project covers approximately 2.96 acres and follows the same boundary as the Caltrans right-of-way within the project limits of approximately PM 20.5 to PM 20.7. The BSA includes Capell Creek and associated riparian corridor, California black oak woodland (Quercus kelloggii alliance), valley oak woodland (Quercus lobata alliance), wild oats grasslands (Avena barbata semi-natural stands), and ruderal vegetation. The road is the only development within the BSA except for a driveway entrance on the east side of SR 121, just north of Location 2 within the project area. A small area of residential homes is located along the northbound lane north of the BSA. There is no active agriculture other than low-density cattle grazing.

The project area, which is defined as the areas that will be directly impacted by the proposed project, including staging areas necessary to facilitate construction activities. It demonstrates the maximum extent of ground-disturbing activities from the various construction actions. This includes both temporary and permanent impacts. Construction activities will extend from the staging area located at PM 20.5 south of the work locations to the northern limits of RSP placement. The project area includes approximately 0.2 acre of existing impervious area and 0.2 acre of disturbed soil.

To reduce potential impacts to sensitive biological resources, Caltrans proposes to incorporate Caltrans standard construction BMPs and avoidance and minimization measures into the proposed project. These measures will be communicated to the contractor through the use of special provisions included in the contract bid solicitation package. These measures are described in the following subsections.
Seasonal Avoidance

Except for limited vegetation clearing (necessary to minimize effects to nesting birds), construction in the creek, which is on the southbound side of the roadway, and in the drainage facilities will be limited to the dry season (June 15 to October 15).

Vegetation Removal

Vegetation will be cleared only where necessary. To the extent feasible, vegetation clearing will be conducted September 1 to February 15 to avoid impacts to nesting birds and roosting bats.

Preconstruction Surveys

Preconstruction surveys will be conducted by an agency-approved biological monitor(s) for California red-legged frogs, western pond turtle, foothill yellow-legged frog, pallid bat, western red bat, and protected bird species.

Amphibian and Reptile Surveys

Entrances or refuge features that vertebrates may use will be collapsed or removed following investigation. The agency-approved biological monitor(s) will perform the clearance survey immediately prior to initial vegetation and debris removal, dewatering, and any other ground disturbance activity at sensitive locations. If an individual is found, it will be relocated to a safe location outside the work areas. Safety permitting, the biological monitor(s) will investigate areas of disturbed soil for signs of special-status species within 30 minutes following initial disturbance of the given area.

Nesting Bird Surveys

If clearing and grubbing occurs between February 15 and September 1, a biologist(s) will survey for nesting birds within the area(s) to be disturbed. If occupied nests (i.e., nests with eggs or hatchlings) are present, work will cease within a buffer surrounding the occupied nest until the young have fledged. Buffers are typically 100 feet for non-raptors and 300 feet for raptors. Partially constructed and unoccupied nests will be removed and disposed of on a regular basis to prevent their occupation.

Bat Surveys

If clearing and grubbing occurs between May 1 and September 1, the biologist(s) will also conduct a survey for roosting bats in tree foliage. In addition to looking for bats directly, the project area will be searched for the presence of guano, stains, or insect parts as clues to infer bat use. If there is strong evidence of bat usage during the maternity period, other surveys methods, such as acoustic surveys, may be performed by an expert.
Approved Biologist

1. The names and qualifications of the proposed biological monitor(s) will be submitted to the USFWS and CDFW for approval at least 30 calendar days prior to the start of construction.

2. Prior to working on the site, the approved biological monitors will submit a letter to the USFWS and CDFW verifying that they possess a copy of the Biological Opinion, Streambed Alteration Agreement, and other relevant permits for the project, and understand the Terms and Conditions.

3. The biological monitors will keep a copy of the Biological Opinion, Streambed Alteration Agreement, and other relevant permit materials in their possession when onsite.

4. The biological monitors will be onsite during all work that could reasonably result in take of special-status wildlife.

5. The biological monitors will have the authority to stop work that may result in the unauthorized take of special-status species through communication with the Resident Engineer. If the biological monitor(s) exercises this authority, the USFWS or CDFW will be notified by telephone and email within one working day.

Resident Engineer

1. At least 30 calendar days prior to ground disturbance, the Resident Engineer’s name and telephone number will be provided to the USFWS and CDFW.

2. The Resident Engineer will send a letter to the USFWS and CDFW verifying that he/she possesses a copy of the Biological Opinion and Streambed Alteration Agreement and understands the Terms and Conditions.

3. The Resident Engineer will maintain a copy of the Biological Opinion, Streambed Alteration Agreement, and other relevant permits onsite whenever construction is taking place.

Worker Environmental Awareness Training

Prior to ground-disturbing activities, a biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description of special-status species, migratory birds, and their habitats; how the species might be encountered within the project area; an explanation of the status of these species and protection under the federal Endangered Species Act and state regulations; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries
within which construction may occur. A fact sheet conveying this information will be prepared and distributed to all construction and project personnel entering the project area. Distributed materials will include cards with distinctive photographs of California red-legged frog, western pond turtle, foothill yellow-legged frog, western red bat, and white-tailed kite, compliance reminders, and relevant contact information. Upon completion of the training program, personnel will sign a form stating that they attended the program and understand all the avoidance and minimization measures and implications of the federal Endangered Species Act.

**Environmentally Sensitive Area (ESA) Fencing**

The work limits will be identified with high-visibility fencing, flagging, or other obvious means. Limits will also be defined near other environmentally sensitive locations, such as bird nests, as needed. The materials used to identify work boundaries will be removed at the end of construction.

**Construction Staging**

A construction staging area is proposed at PM 20.5 for equipment storage and stockpiling of temporary materials. This staging location was used in 2016 for a maintenance storm damage project at PM 20.3, is expected to be used for another storm damage project at PM 20.4, and is commonly used by vehicles to park off of the roadway; however, it is not 50 feet from the top of the bank of Capell Creek. The standard 50-foot setback from drainages for staging areas is not feasible for this project due to the close proximity of Capell Creek to the roadway throughout the vicinity of the project area. There is no previously disturbed area suitable for use as a staging area for this project that is located more than 50 feet from drainages. The discharge of pollutants into drainages will be avoided by the implementation of the BMPs.

**Implementation of Best Management Practices**

A Water Pollution Control Plan (WPCP) and erosion control BMPs will be developed and implemented to minimize wind- or water-related erosion. They will be in compliance with the requirements of the Regional Water Quality Control Board (RWQCB) and standards outlined in Caltrans’ (2003) *Construction Site Best Management Practices (BMPs) Manual*. Protective measures will include, at a minimum:

1. Disallowing any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses.

2. Collecting and disposing of concrete wastes in washouts and water from curing operations. Neither will be allowed into watercourses.

3. Performing on-site fueling and maintenance only when it is impractical to send vehicles and equipment off-site for fueling.
a. Dedicated fueling areas will be protected from storm water run-on and run-off.

b. Fueling will be performed at designated, level-grade areas.

c. Drip pans or absorbent pads will be used during on-site vehicle and equipment fueling.

4. Maintaining all equipment in order to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents.

5. Storing hazardous materials such as fuels, oils, solvents, etc. in sealable containers in a designated location.

6. Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment.

7. Using water trucks and dust palliatives to control dust in excavation and fill areas and covering of temporary stockpiles when weather conditions require.

8. Installing temporary fiber rolls or temporary silt fences along or at the base of slopes during construction to capture sediment.

9. Protecting graded areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control measures (such as temporary cover) as appropriate on sloped areas.

**Construction Site Management Practices**

The following site restrictions will be implemented:

1. Enforcing a speed limit of 15 miles per hour (mph) in the project area.

2. Certifying, to the maximum extent practicable, that any borrow material to be non-toxic and weed free.

3. Enclosing all food and food-related trash items in sealed trash containers and removing them from the site at the end of each week.

4. Prohibiting all pets within the project area during construction.

5. Prohibiting firearms within the project area, except for those carried by authorized security personnel, or local, state, or federal law enforcement officials.

**Avoidance of Entrapment**

To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps.
constructed of earth fill or wooden planks. Before such holes or trenches are filled they must be thoroughly inspected for trapped animals. All replacement pipes, culverts, or similar structures stored in the project area overnight will be inspected before they are subsequently moved, capped and/or buried.

**Handling of Listed Species**

If at any time a listed species is discovered, the Resident Engineer and agency-approved biological monitor will be immediately informed.

1. If a special-status species gains access to a construction zone, work will be halted immediately within 50 feet until the animal leaves the site or is removed by the agency-approved biological monitor.

2. The USFWS will be notified within one working day if a California red-legged frog is discovered within the construction site. The CDFW will be notified within one working day if a California species of special concern or fully protected species is discovered within the construction site.

3. The captured special-status species will be released within appropriate habitat outside of the construction.

4. The biological monitor(s) will take precautions to prevent introduction of amphibian diseases in accordance with the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (USFWS 2005).

**Dewatering**

Dewatering and discharging activities will be conducted according to standard Caltrans requirements.

1. The dewatering plan will be provided to the USFWS, RWQCB, and CDFW for review and comment in advance of its establishment.

2. An agency-approved biological monitor(s) will be present during dewatering activities to relocate special-status species as needed.

3. For dewatering systems that require pumping, all intakes will be completely screened with wire mesh not larger than 5 millimeters (0.2 inch) to prevent wildlife from entering the pump system.

4. Upon completion of construction activities, any barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate.
Replant, Reseed, and Restore Disturbed Areas

Caltrans will restore temporarily disturbed areas to the preconstruction function and values to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with native species to stabilize and prevent erosion.

Erosion Control Matting

An erosion control matting or similar material will not be used for the project because wildlife may become entangled or trapped in it.

Reduce Spread of Invasive Species

Noxious weeds will be controlled in accordance with Caltrans’ Highway Design Manual Topic 110.5 “Control of Noxious Weeds – Exotic and Invasive Species,” Executive Order 13112 (Invasive Species), and by methods approved by Caltrans’ landscape architect or vegetation control specialist.

Natural Communities of Special Concern

Natural communities within the BSA consist of potential jurisdictional waters and associated riparian habitat.

Wetlands and Waters

No wetland habitats outside of the stream habitat of Capell Creek were observed in the BSA. Jurisdictional waters of the U.S. and waters of the state within the BSA include Capell Creek and ephemeral drainages.

Survey Results

Jurisdictional waters delineated within the BSA totaled approximately 0.40 acre (1,051 linear feet), including Capell Creek and ephemeral drainages.

Capell Creek

Approximately 0.385 acre (703 linear feet) of Capell Creek were mapped within the BSA. This includes the portion below the OHWM. Capell Creek is shown as a blue-line stream on the Capell Valley USGS 7.5-minute topographic map and is also included as a perennial stream in the National Hydrography Dataset (USGS 2016). It is a perennial creek, and flowing water was observed at the time of the March and May delineation field visits. The channel substrate within the BSA consisted of a mixture of fine to medium gravel and sand covered with cobbles. Based on evidence such as drift deposits, scouring, and changes in vegetation, the width of the average OHWM of the creek within the BSA is approximately 23 feet with an estimated average depth of approximately 3 feet. There were two low-flow channels that were devoid of vegetation as observed during the May survey. Below the limits of the
OHWM, sand bar willow (Salix exigua) shrubs and Oregon ash trees are common, along with Durango root (Datisca glomerata) on the gravel bar within the stream. Naked sedge (Carex nudata) appeared to be present in the gravel bar based on the presence of old inflorescences and previous data from a delineation conducted adjacent to the BSA between PMs 20.1 and 20.5 (Caltrans 2010). Capell Creek is a tributary that flows indirectly to Prospect Slough, a traditional navigable water, and is a potential water of the U.S.

The creek bank along the southbound lane was very steep and supported a terrestrial (non-wetland) plant community, California black oak woodland, and associated species above the limits of the OHWM. The opposite creek bank was sloped, and in some areas terraced, and was vegetated with non-wetland, invasive grassland species such as barbed beard grass (Aegilops triuncialis) as well as scattered woodland species shading portions of the slope above the limits of the OHWM.

**Ephemeral Features**

The BSA supports six ephemeral features totaling 0.015 acre (348 linear feet) that flow from the southeastern hills, then along the curb of the roadway, and then into culverts that outlet into Capell Creek. These features did not support any hydrophytic vegetation, but they were characteristic of a tributary in that a defined bed and bank was present along with indicators of an OHWM. Upland vegetation was observed on the top of the banks of these features, except at one feature, where about 10 percent ruderal vegetation was observed within the feature.

The other features evaluated were ephemeral swales with shallow expressions or erosional characteristics and lacked a defined bed and bank and an OHWM. These features were along the road and conveyed flows during high rain events towards Capell Creek. These features do not replace former waters of the U.S. and are not potential waters of the U.S. For additional details on the ephemeral features, refer to the report in Appendix C.

**Avoidance and Minimization Efforts**

Measures will be implemented to avoid and minimize construction impacts to water features, including only working in Capell Creek during June 15 to October 15, identifying the work limits to prevent construction equipment from encroaching outside the permitted impact area, staging in previously disturbed areas, implementing a WPCP and BMPs to prevent sediment and any pollutants from entering the drainages, performing in-stream construction within a dewatered area per an approved dewatering plan, and restoring temporarily disturbed areas at the end of construction.
Project Impacts

The proposed project will result in a total of 0.01 acre of permanent impacts and 0.007 acre of temporary impacts to potential waters of the U.S. Permanent fill to waters of the U.S. includes RSP in Capell Creek and a new flared end section and drop inlet at the ephemeral tributary. Permanent and temporary impacts to water features are detailed in Table 4-1.

**Table 4-1 Impacts to Water-Associated Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Permanent Impact (acre)</th>
<th>Temporary Impact (acre)</th>
<th>Project Activity</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capell Creek at PM 20.61 (below OHWM)</td>
<td>0</td>
<td>0</td>
<td>Remove debris; place rock slope protection (RSP)</td>
<td>CDFW, USACE, RWQCB, USFWS</td>
</tr>
<tr>
<td>Capell Creek at PM 20.64 (below OHWM)</td>
<td>0.005 acre (26 linear feet)</td>
<td>0.002 acre (9 linear feet)</td>
<td>Remove debris; place RSP</td>
<td>CDFW, USACE, RWQCB, USFWS</td>
</tr>
<tr>
<td>Capell Creek north of PM 20.64 (below OHWM)</td>
<td>0.003 acre (58 linear feet)</td>
<td>0</td>
<td>Remove debris; place RSP; grout around top of RSP with cement to create a level surface for row of gabion baskets at top of RSP</td>
<td>CDFW, USACE, RWQCB, USFWS</td>
</tr>
<tr>
<td>Ephemeral Tributary D-4</td>
<td>0.001 acre (26 linear feet)</td>
<td>0</td>
<td>Culvert replacement includes a new flared end section and associated drop inlet. Recontour.</td>
<td>USACE, RWQCB, USFWS</td>
</tr>
<tr>
<td>Ephemeral Tributary D-5</td>
<td>0</td>
<td>0.001 acre (19 linear feet)</td>
<td>Work area for placing liner inside culvert.</td>
<td>USACE, RWQCB, USFWS</td>
</tr>
<tr>
<td>Culvert at PM 20.61</td>
<td>0</td>
<td>0.001 acre (44 linear feet)</td>
<td>15-inch culvert will be replaced with</td>
<td>USACE, RWQCB, USFWS</td>
</tr>
</tbody>
</table>
### Table 4-1  Impacts to Water-Associated Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Permanent Impact (acre)</th>
<th>Temporary Impact (acre)</th>
<th>Project Activity</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-inch culvert via</td>
<td>0.004 acre (52 linear</td>
<td>0.004 acre (52 linear</td>
<td>24-inch culvert via trenching</td>
<td>USACE, RWQCB, USFWS 1</td>
</tr>
<tr>
<td>PM 20.64</td>
<td>feet)</td>
<td>feet)</td>
<td>36-inch pipe-liner will be placed in the existing 42-inch culvert</td>
<td></td>
</tr>
<tr>
<td>Culvert at PM 20.64</td>
<td></td>
<td></td>
<td>36-inch pipe-liner will be placed in the existing 42-inch culvert</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

1 USFWS has jurisdiction over potential California red-legged frog habitat.

CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service

### Compensatory Mitigation

Permanent impacts to potential waters of the U.S. and waters of the State are expected to be less than 0.01 acre; therefore, no compensatory mitigation is proposed.

### Cumulative Impacts

Cumulative impacts to waters could potentially result from this project in conjunction with other development projects on Capell Creek. However, implementation of avoidance and minimization efforts is expected to result in avoidance of significant impacts to aquatic functions and values. Future projects will also be required to undergo an environmental review to identify, avoid, minimize, and mitigate potential adverse impacts. Therefore, the project will not likely cause negative and cumulative impacts on waters.

### Riparian Habitat

### Survey Results

California black oak woodland forms a riparian corridor along the banks of Capell Creek along the southbound lane of SR 121. This area was identified during the reconnaissance survey and is shown in Figure 4-2. Caltrans survey crews performed a field survey in January 2016, which included the identification of trees in the BSA. These tree locations are shown in Figure 4-2.
Avoidance and Minimization Efforts

Vegetation will be cleared only where necessary. If clearing and grubbing occurs between February 15 and September 1, a biologist(s) will survey for nesting birds within the area(s) to be disturbed. All nest avoidance requirements of the Migratory Bird Treaty Act and California Fish and Game Code will be observed.

Project Impacts

As outlined in Table 4-2, the project will result in 0.04 acre of permanent impact and 0.02 acre of temporary impact to riparian vegetation on the bank of Capell Creek, including the removal of one tree.
Table 4-2  Potential Impacts to Riparian Habitat

<table>
<thead>
<tr>
<th>Feature</th>
<th>Permanent Impact (acre)</th>
<th>Temporary Impact (acre)</th>
<th>Project Activity</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capell Creek Bank with Riparian Vegetation</td>
<td>0.04</td>
<td>0.02</td>
<td>RSP and work area</td>
<td>RWQCB, CDFW, USFWS ¹</td>
</tr>
</tbody>
</table>

**Note:**

¹ USFWS has jurisdiction over potential California red-legged frog habitat.

At Location 1 (PM 20.61), the culvert replacement and embankment repair will result in a total of 0.01 acre of temporary impacts to riparian vegetation, including removal of herbaceous and understory species such as of poison oak, California bay, wild oats, vetch, bristly dogtail grass, mugwort, and bur chervil. The trunk of a valley oak with DBH of 12 inches is approximately 3 feet from the edge of the void that will be filled, and a coast live oak with DBH of 7.3 feet is on the south side of the proposed fill location. The bank undercutting has exposed a significant portion of the coast live oak’s root structure. RSP will be placed under the exposed roots and the tree is not expected to require removal. Approximately 0.01 acre of the creek bank will be filled with RSP.

At Location 2 (PM 20.64), the eroded slope repair with RSP will result in a total of 0.04 acre of impacts to riparian vegetation, including one tree (Table 4-3). North of the culvert at PM 20.64, where a row of gabion baskets will be placed atop the RSP, was a valley oak with a diameter at breast height of 22 inches. This tree fell during storm events in 2017 and is no longer present. There is also a coast live oak, also with a diameter at breast height of 22 inches, it is surrounded by vetch, bur chervil, and poison oak.
Table 4-3  Tree Removal

<table>
<thead>
<tr>
<th>Species</th>
<th>DBH (inches)</th>
<th>Canopy Diameter (feet)</th>
<th>Project Activity</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valley Oak (Quercus lobata)</td>
<td>22</td>
<td>45</td>
<td>gabion basket wall</td>
<td>RWQCB, CDFW, USFWS ¹</td>
</tr>
</tbody>
</table>

**Note:**
¹ USFWS has jurisdiction over potential California red-legged frog habitat.

**Compensatory Mitigation**

The project has been designed to protect the maximum number of native trees. The one tree that will be removed is located on a slope prone to slip-out. Therefore, Caltrans does not propose compensatory mitigation for riparian tree removal. Habitat temporarily disturbed during project construction will be restored and revegetated with native species.

**Cumulative Impacts**

Cumulative impacts to riparian habitat may result from this project, in conjunction with other development projects on Capell Creek. However, successful implementation of avoidance and minimization measures are expected to result in less than significant impacts to riparian functions and values. Future projects will also be required to undergo an environmental review to identify, avoid, minimize, and mitigate potential adverse impacts. Therefore, the project will not likely cause negative and cumulative impacts to riparian habitat.

**Special Status Plant Species**

Special-status plant species identified with potential habitat in the BSA included CNPS 1B species Northern California black walnut (*Juglans hindsii*), Napa bluecurls, and oval-leaved viburnum (*Viburnum ellipticum*). No rare, threatened, or endangered plants were observed during the reconnaissance-level and protocol-level surveys within the BSA.

**Northern California Black Walnut**

Northern California black walnut may occur within riparian habitat along the southbound lane of SR 121. The nearest known location of this species is approximately 2 miles south of the BSA along Capell Creek near Munson Ranch (CNDDB 2016).
Napa Bluecurls

Napa bluecurls may occur within wild oats grassland and oak woodlands on the hillside slopes along the northbound lane.

Oval-leaved Viburnum

Oval-leaved viburnum may occur within the California black oak woodland on the hillside slopes along the northbound lane. The nearest known location for this species is more than 5.5 miles south of the BSA east of Mt. George (CNDDB 2016).

Survey Results

No special-status species were observed within the BSA during the protocol-level surveys on May 25 and August 31, 2016. Biologists had access to the entire survey area, and all surveys were conducted during favorable climate conditions (slightly above average rainfall). The grassland area within the BSA is somewhat disturbed based on the presence of naturalized annual grasses, including dogtail. A complete list of plant species observed in the BSA during the botanical surveys is presented in Appendix D.

Two known reference populations of Napa bluecurls, CNDDB Occurrence Numbers 11 and 16, were visited on August 31, 2016. The exact locations of these populations were non-specific and reportedly estimated in the CNDDB database. Both sites were last observed in 2004. The biologists walked the areas described in the database within the Caltrans right-of-way along the roads of these areas. The biologists did not observe Napa bluecurls at these locations. The site at CNDDB Occurrence 11 supports annual grasses and coast live oak trees on a rocky volcanic substrate suitable for Napa bluecurls; however, the lack of access on private property prevented the biologists from surveying the site thoroughly. The site at CNDDB Occurrence 16 was highly disturbed and grazed by cows, and unlikely to support Napa bluecurls.

Special-status Animal Species

This section addresses the special-status wildlife species documented to occur or considered likely to occur in the BSA. These species include California red-legged frog, western pond turtle, foothill yellow-legged frog, white-tailed kite (Elanus leucurus), pallid bat (Antrozous pallidus), and western red bat (Lasiurus blossevillii). Common migratory birds and raptors are also addressed in this section. A complete list of special-status species for the nine-quadrangle region is provided in Appendix B.
California Red-legged Frog

California red-legged frog was federally listed as a threatened species under the federal Endangered Species Act on May 23, 1996 (61 Federal Register 25813). California red-legged frog is distributed throughout 26 counties in California, but is most abundant in the San Francisco Bay area. Populations have become isolated in the Sierra Nevada, northern Coast, and northern and southern Transverse and Peninsular Ranges (Jennings and Hayes 1994; Stebbins 2003).

California red-legged frog predominately inhabit permanent water sources such as streams, lakes, marshes, natural and manmade ponds, and ephemeral drainages in valley bottoms and foothills up to 4,900 feet in elevation (Jennings and Hayes 1994; Bulger et al. 2003; Stebbins 2003). California red-legged frogs breed between November and April in standing or slow-moving water at least 2.5 feet deep with emergent vegetation, such as cattails (Typha spp.), tules (Scirpus spp.), or overhanging willows (Salix spp. [Hayes and Jennings 1988]). Egg masses containing 2,000 to 5,000 eggs are attached to vegetation below the surface and hatch after 6 to 14 days (Jennings and Hayes 1994). Larvae undergo metamorphoses 3.5 to 7 months after hatching, and reach sexual maturity at 2 to 3 years of age (Jennings and Hayes 1994).

Survey Results

No protocol-level surveys for California red-legged frog have been conducted in the BSA. However, the project’s BSA is within the species’ dispersal distance from a known population (CNDDB Occurrence #739) and the species could occasionally disperse through the site. A review of the CNDDB identified two California red-legged frog extant populations/breeding locations within 5 miles of the BSA (Figure 3-2):

CNDDB Occurrence #739 was reported 1.1 miles northeast of the BSA in a tributary to Oak Moss Creek, on the south edge of SR 128, approximately 0.1 mile east of SR 121 in Capell Valley. Two adults were observed crossing SR 128 at night on May 21, 1983. Frogs have been heard calling at this site many times over the years, and most recently in January 2003. The habitat at this location consists of constructed ponds at the head of Oak Moss Creek, found within a gently sloping meadow in thin oak woodland (CNDDB 2016).

CNDDB Occurrence #401 was reported 3 miles east of the BSA in Alamo Creek. Six larvae and two metamorphs were observed on August 7, 2003 in a pool along Gates Canyon Road. The pool was surrounded by grazed mixed oak woodland with scrub along hill slopes and oaks and willows along the creek. The creek substrate was sand, with small gravel in the pool (CNDDB 2016).

Although Capell Creek includes aquatic habitat, the creek does not represent typical breeding habitat for California red-legged frogs due to a lack of slow-moving or stagnant water and emergent vegetation suitable for attaching egg masses (e.g., cattails). Although
during drier portions of the year flows persist in the creek and there is emergent vegetation (primarily willows), the higher flows during winter and spring (such as conditions observed during the March 10, 2016 survey) would preclude red-legged frogs from breeding. Thus the riparian corridor is not expected to be used for breeding but could be used for dispersal, and may provide non-breeding habitat for frogs that migrate from nearby breeding sites. Habitat features such as boulders, downed trees, logs, and dense vegetation are present in some areas of the BSA and could provide cover for non-breeding frogs.

**Critical Habitat**

The closest designated California red-legged frog critical habitat is NAPA-1 (USFWS 2010). This unit starts approximately 1 mile north of the BSA and is occupied by California red-legged frog.

The proposed project is within Recovery Unit 3, the North Coast and North San Francisco Bay, as documented by the California red-legged frog recovery plan (USFWS 2002).

No designated or proposed critical habitat for California red-legged frog will be affected by the proposed project.

**Project Impacts**

Caltrans proposes to minimize construction-related effects by implementing the measures in Section 4.1. However, incidental take still could occur. Construction activities could result in harassment, injury, or death (take) of individual California red-legged frogs from ground disturbance, inadvertent entrapment of individuals, or temporarily disrupting normal behaviors.

Construction activities will temporarily preclude the use of the work areas by California red-legged frog for dispersal and cover. Restoration of the areas needed for work space is expected to reestablish baseline aquatic, riparian, and upland habitat values for the California red-legged frog within one year of project completion.

The project area contains two culverts that potentially provide safe passage opportunities for California red-legged frogs crossing SR 121. However, the existing angles of the eroded creek banks surrounding the culvert outfalls make accessing the crossings from within Capell Creek difficult for small animals such as red-legged frogs. The fill that will be placed will create a more gradual slope that will likely facilitate movement of California red-legged frogs through the culverts. The area north of Location 2 will have a similar slope as the existing bank and gabion baskets will be installed at the top of the RSP. Therefore, although the project is not designed to improve California red-legged frog habitat, some components, such as those associated with the culvert at Location 1, will facilitate frog movement and dispersal across SR 121.
Potential project impacts to California red-legged frog habitat are summarized in Table 4-3 and shown on Figure 4-3.

Table 4-4  California Red-legged Frog Project Impacts

<table>
<thead>
<tr>
<th>Habitat Type</th>
<th>Permanent Direct Impact (acre)</th>
<th>Temporary Direct Impact (acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Non-Breeding</td>
<td>0.009</td>
<td>0.003</td>
</tr>
<tr>
<td>Upland Dispersal</td>
<td>0.016</td>
<td>0.028</td>
</tr>
</tbody>
</table>

**Compensatory Mitigation**

The mitigation proposed for riparian habitat would benefit California red-legged frog. No other compensatory mitigation is proposed.

**Cumulative Impacts**

Projects that could contribute to a cumulative impact include those that have both direct and indirect impacts leading to an overall reduction in quantity, functionality, and longevity of habitat. The following are in the vicinity of the proposed project:

**State Route 121 Capell Creek Bridge Replacement (PM 20.1-20.5)** – Caltrans replaced the existing Capell Creek Bridge with a single-span bridge on SR 121. Only temporary impacts occurred to California red-legged frog habitat. Project construction was completed in summer 2015.

**Capell Creek Horizontal Drains** – Caltrans cleaned existing horizontal drains and installed slope indicators to measure movement of the hillslide toward the SR 128 Capell Creek Bridge. This project was located on the shoulders of SR 128 in the vicinity of the proposed SR 128 bridge replacement 4 miles downstream of the proposed project and did not impact red-legged frogs. Project construction was completed in winter 2015.

**State Route 128 Capell Creek Bridge Replacement (PM 19.7-20.7)** – Caltrans will replace the SR 128 bridge over Capell Creek. The project is expected to have impacts to California red-legged frog habitat.

All of these projects went through, or is going through, an environmental review to identify, account for, and mitigate for potential adverse impacts. All projects incorporated avoidance and minimization measures. Therefore, Caltrans does not anticipate that the California red-legged frog will experience cumulative effects as a result of the proposed project and nearby projects.
**Western Pond Turtle**

The western pond turtle is a California species of special concern and is a current candidate for listing under the federal Endangered Species Act. Western pond turtle ranges throughout the state of California, from southern coastal California and the Central Valley east to the Cascade Range and Sierra Nevada. The two subspecies, northwestern and southwestern, are believed to integrate over a broad range in the Central Valley (Jennings and Hayes 1994).

This species occurs in a variety of permanent and intermittent aquatic habitats, such as ponds, marshes, rivers, streams, and ephemeral pools. Pond turtles require suitable basking and haul-out sites, such as emergent rocks or floating logs, which they use to regulate their temperature throughout the day (Holland 1994). In addition to appropriate aquatic habitat, these turtles require an upland oviposition site in the vicinity of the aquatic habitat, often within 656 feet. Nests are typically created in grassy, open fields with soils that are high in clay or silt fraction. Egg laying usually takes place between March and August (Zeiner et al. 1990a).

A study has demonstrated that this species may spend the winter in an inactive state, on land or in the water, and in other cases may remain active and in the water throughout the year (Jennings and Hayes 1994). While the turtles may be active year-round along the coast, at interior locations such as the Central Valley, pond turtles are more likely to be active between April and October. Western pond turtles have been documented hibernating up to 1,150 feet from a watercourse, immediately adjacent to a watercourse (Jennings and Hayes 1994), and underwater in mud (Zeiner et al. 1990a). Upland hibernacula may include any type of crack, hole, or object that a turtle seeking cover might squeeze into or burrow underneath.

**SURVEY RESULTS**

No focused surveys were conducted for western pond turtles; however, several observations of this species were made by Caltrans biological monitors during the course of the Capell Creek horizontal drains project in 2014 (CNDDB Occurrence #1300), which is located approximately 4 miles downstream of the proposed project. Because of these nearby observations from Capell Creek and the existence of suitable habitat in the BSA, the species is expected to occur on the site.

**PROJECT IMPACTS**

Potential project impacts to western pond turtles include direct impacts (potential loss or injury of individuals during placement of RSP or dewatering, temporary breeding habitat
loss, and temporary disturbance to dispersal habitat) and indirect impacts (e.g., sedimentation into the creek resulting from stormwater runoff from slopes where vegetation has been removed). While there is potential for indirect impacts to occur, these impacts will be minimized through the avoidance and minimization measures described in Section 4.1. The proposed project is not expected to permanently increase light, visual, and/or vibration disturbances, although temporary disturbances related to noise and vibration are expected to occur. If western pond turtles are found during preconstruction surveys, turtles will be relocated to a safe location outside the work areas.

**Compensatory Mitigation**

Compensatory mitigation for western pond turtle beyond the measures to restore and revegetate the project site.

**Cumulative Impacts**

Cumulative impacts to western pond turtle may result from potential direct and indirect impacts from this project in conjunction with other development projects on Capell Creek. However, successful implementation of avoidance and minimization efforts will avoid significant effects to the species. Future projects will also be required to undergo an environmental review to identify, avoid, minimize, and mitigate potential adverse impacts to this species. Therefore, the project will not likely result in cumulative impacts to western pond turtles.

**Foothill Yellow-legged Frog**

The foothill yellow-legged frog is a California species of special concern and candidate for listing under the federal Endangered Species Act that occurs throughout the Coast Ranges from the Oregon border, south to the Transverse Range in Los Angeles County, in most of northern California west of the Cascade crest, and along the western flank of the Sierra south to Kern County (Zeiner et al. 1990a). Foothill yellow-legged frogs are found in a variety of habitat types including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow. Its elevation range extends from sea level to 6,000 feet in the Sierra (Stebbins 2003). Adult foothill yellow-legged frogs are generally found on partially shaded, pebble or cobble river bars, along both riffles and pools. This species is also occasionally found in other riparian habitats, including moderately vegetated backwaters, isolated pools (Hayes and Jennings 1988), and slow-moving rivers with muddy substrate. Adults often bask on exposed rock surfaces near streams. When disturbed, they dive into the water and take refuge under submerged rocks or sediments (Zeiner et al. 1990a).
Foothill yellow-legged frogs usually breed in shallow, slow-flowing water with at least some pebble and cobble substrate. Breeding and egg laying usually begins between mid-March and May, after spring flooding conditions. Eggs take between 5 to 30 days or more to hatch and timing is thought to be dependent on temperature. The tadpoles require 15 weeks for metamorphosis, which normally occurs between July and September. Foothill yellow-legged frogs rarely travel far from permanent water, and normal home ranges are probably less than 33 fee) in the longest dimension (Zeiner et al. 1990a).

**SURVEY RESULTS**
No focused surveys for yellow-legged frogs have been conducted; however, several individual foothill yellow-legged frog observations and an egg mass observation were made in 2013 by Caltrans biological monitors during the course of the Capell Creek Horizontal Drains Project, which is located approximately 4 miles downstream of the proposed project at SR 128 PM 19.7-20.7. Two individuals were also identified in Capell Creek south of the BSA, on May 20, 2010 in relation to the State Route 121 Bridge Replacement (PM 20.1-20.5). Because of these nearby observations from Capell Creek and the existence of suitable habitat in the BSA, the species is expected to occur on the site.

**PROJECT IMPACTS**
Potential project impacts to known foothill yellow-legged frog populations include direct impact (potential loss of individuals during placement of RSP and dewatering, temporary breeding habitat loss, and temporary disturbance to dispersal habitat) and indirect impacts (e.g., sedimentation and runoff). While there are indirect impacts associated with the project, these impacts will be minimized through the avoidance and minimization measures. The proposed project is not expected to increase light, visual, and/or vibration disturbances, although temporary disturbance associated with noise and vibrations are expected to occur.

**COMPENSATORY MITIGATION**
The restoration and revegetation of the project site would benefit foothill yellow-legged frogs. No additional compensatory mitigation is proposed.

**CUMULATIVE IMPACTS**
Cumulative impacts to foothill yellow-legged frog may result from potential direct and indirect impacts from this project in conjunction with other development projects on Capell Creek. However, successful implementation of avoidance and minimization efforts will avoid significant effects to the species. Future projects will also be required to undergo an environmental review to identify, avoid, minimize, and mitigate potential adverse impacts. Therefore, the project will not likely result in cumulative impacts to yellow-legged frogs.
Pallid Bat
The pallid bat is a California species of special concern. It occupies a range of habitats, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. However, this species is most common in open, dry habitats with rocky areas for roosting (Zeiner et al. 1990b) Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and open buildings. Adequate roost sites for pallid bats must protect bats from high temperatures. Little is known about hibernation sites, or winter roosts, but some pallid bats roost in rock crevices in winter. Regionally, riparian areas are important winter habitat for this species. This species forages on a wide variety of insects and arachnids, including beetles, moths, spiders, scorpions, and Jerusalem crickets. Pallid bats form maternity colonies in early April, and may have a dozen to 100 individuals; males may roost separately or in the nursery colony. Pallid bats are known to be sensitive to human disturbances at roost sites (Miner and Stokes 2005).

Survey Results
No focused pallid bat surveys have been conducted for the project. An unknown number of pallid bats were detected during bioacoustic surveys from August 11 to September 9, 2005. The BSA and surrounding areas likely provides foraging habitat, and the trees in the BSA may be used as day roost sites. However, the trees in the project area do not have the hollow cavities or crevices that pallid bats would require for day roosts, and thus are not likely to roost in the BSA.

Project Impacts
A loss of foraging habitat for pallid bats may occur during construction due to impacts to riparian habitat. The project, including tree removal, is not expected to directly injure or kill any pallid bats.

Compensatory Mitigation
The restoration and revegetation of the project site would benefit pallid bats. No additional compensatory mitigation is proposed.

Cumulative Impacts
Cumulative impacts to pallid bat may result in the loss of potential foraging habitat during construction. However, successful implementation of riparian restoration upon completion of the project should avoid significant effects to the species. Future projects will also be required to undergo an environmental review to identify, avoid, minimize, and mitigate potential adverse impacts. Therefore, the project will not likely result in cumulative impacts to pallid bats.
Western Red Bat
Western red bat, a California species of special concern, ranges from southern British Columbia to Central and South America (Pierson et al. 2006). The primary threat to western red bat is the loss of riparian habitat, and possibly pesticide use in

SURVEY RESULTS
No focused western red bat surveys have been conducted for the project.

PROJECT IMPACTS
While the trees in the project area might be used by western red bats for roosting, it is not likely. However, loss of potential roosting sites for western red bats could occur due to tree removal. Tree removal could affect roosting bats using foliage for roosting. With seasonal avoidance of tree removal, there is a low probability of the project activities affecting roosting bats. Temporary loss of foraging habitat for bats is likely during the construction period.

COMPENSATORY MITIGATION
The restoration and revegetation of the project site may benefit western red bats. Tree removal will occur outside the maternity season for bats, which falls in the nesting season for birds. If tree removal cannot occur during this period, then preconstruction surveys for roosting bats will be conducted by a qualified biologist.

CUMULATIVE IMPACTS
Cumulative impacts to western bat may result from potential direct and indirect impacts from this project in conjunction with other development projects in the area. However, successful implementation of avoidance and minimization efforts would avoid significant impacts to the species. Future projects will also be required to undergo an environmental review to identify, avoid, minimize, and mitigate potential adverse impacts. Therefore, the project will not result in cumulative impacts to western red bats.

Migratory Birds and Raptors

WHITE-TAILED KITE
White-tailed kites are listed as a state fully protected species by CDFW. They are also protected by the MBTA. This resident species is found in California along the coast and inland in the Central Valley (Dunk 1995).

SURVEY RESULTS
Suitable foraging, nesting, and roosting habitat for white-tailed kite is present within the BSA. White-tailed kites along with other migratory bird species protected by the MBTA could nest in the BSA and adjacent areas.
**PROJECT IMPACTS**
The proposed project will require removal of vegetation and trees that may be used as nest sites by species protected by the MBTA and under the California Fish and Game Code. However, implementation of avoidance and minimization measures, such as tree removal outside of nesting season, preconstruction surveys, and construction/nest buffers, will avoid direct impacts to nesting migratory birds or raptors.

**COMPENSATORY MITIGATION**
The restoration and revegetation of the project site may benefit migratory birds and raptors. No additional compensatory mitigation is proposed.

**CUMULATIVE IMPACTS**
Cumulative impacts to migratory birds and raptors may result from potential direct and indirect impacts from this project in conjunction with other development projects in the area. However, successful implementation of avoidance and minimization efforts will avoid or significantly reduce impacts to nesting birds. Future projects will also be required to undergo an environmental review to identify, avoid, minimize, and mitigate potential adverse impacts. Therefore, the project will not result in cumulative impacts to migratory birds.

**Federal and State Regulatory Requirements Applicable to Project**
Caltrans will obtain the following permits to complete the construction of this project:

- Biological Opinion from the U.S. Fish and Wildlife Service (Section 7 Consultation of the Federal Endangered Species Act)
- Water Quality Certification from the California Regional Water Quality Control Board (Section 401 of the Clean Water Act)
- Nationwide Permit from the USACE (Section 404 of the Clean Water Act)
- Lake or Streambed Alteration Agreement from the CDFW (Section 1602 of the California Fish and Game Code)

**Endangered Species Consultation Summary**

**Federal Endangered Species Act**
Caltrans initiates consultation with USFWS or NMFS (for fish species) when a project has the potential to affect a federally listed species and/or adversely modify designated critical habitat. Formal consultation with USFWS under the federal Endangered Species Act will be initiated with the submission of a Biological Assessment prepared for the project, and a
Biological Opinion will be obtained from the USFWS as Caltrans has determined that the project may affect California red-legged frog. Caltrans has made a no effect determination on all other federally listed species that may occur within the BSA. If prior to commencement of construction foothill yellow-legged frog or western pond turtle become federally listed, then a Section 7 consultation will be initiated for those species.

**California Endangered Species Act**

The California Endangered Species Act generally parallels the main provisions of the federal Endangered Species Act, but extends the take prohibitions to species proposed for listing. CFGC Sections 2080 and 2081 prohibit the take (defined as hunting, pursuing, catching, capturing, or killing) of endangered, threatened, or candidate species unless otherwise authorized by permit.

The California Endangered Species Act allows for incidental take by otherwise lawful projects except for those species listed as fully protected. State lead agencies are required to consult with CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any listed or candidate species, or result in destruction or adverse modification of essential habitat. Caltrans is not required at this date and time to seek an incidental take permit for this project for any species, as no state-listed species occur in the project area. However, CDFW may require avoidance measures for fully protected or species of special concern in the Streambed Alteration Agreement.

**Wetlands and Other Waters Coordination Summary**

The proposed project is expected to temporarily and permanently fill potential waters of the U.S. and waters of the state. A delineation report was submitted to the USACE on August 23, 2016 for waters of the U.S..

**Federal Clean Water Act, Sections 401 and 404**

Caltrans will apply for a Section 401 Water Quality Certification from the RWQCB before working in Capell Creek or drainages.

Per Section 404 of the Clean Water Act, Caltrans will submit a Pre-Construction Notification (PCN) package to the USACE due to construction activities that will take place below the OHWM of Capell Creek and unnamed drainages. Nationwide Permit 3 (Maintenance) authorizes the replacement of currently serviceable structures; however, any bank stabilization measures not directly associated with the structure replacement require a separate authorization. Therefore, Nationwide Permit 13 (Bank Stabilization) will also be invoked. Nationwide Permit 3 requires notification prior to commencing activities that include placement of new riprap to protect the structure.
**Porter-Cologne Water Quality Control Act**

Under California’s Porter-Cologne Water Quality Control Act, all waters of the U.S. that are within the borders of California are also “waters of the state” and fall under the jurisdiction of the State Water Resources Control Board (SWRCB). Waters of the state also include isolated wetlands and some ditches which may no longer be within the jurisdiction of USACE. The SWRCB regulates discharges under the Porter-Cologne Act primarily through issuance of National Pollutant Discharge Elimination System permits for point source discharges and Waste Discharge Requirements for non-point source discharges.

Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity. The proposed project will disturb less than an acre of soil; therefore, development of a Storm Water Pollution Prevention Plan is not required. However, a Water Pollution Control Plan will be developed per Caltrans standards.

The discharge of fill material into the bed or bank of Capell Creek and the ephemeral drainages within the BSA is within the jurisdiction of the SWRCB per the Porter-Cologne Act, and will be included in the Application for Water Quality Certification.

**California Streambed Alteration Notification/Agreement**

A CDFW Lake or Streambed Alteration Agreement is required by Fish and Game Code Section 1602 when a project will substantially alter the flow, bed, channel, bank, or riparian corridor of a stream or lake. Capell Creek qualifies as stream with banks and riparian corridor and will be affected by this project. Therefore, Caltrans will apply for a Streambed Alteration Agreement permit from the CDFW.

**Migratory Bird Treaty Act and Other Bird Protections**

**Migratory Bird Treaty Act**

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712) makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 Code of Federal Regulations (CFR) Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered a “take” and is potentially punishable by fines and imprisonment. Incidental take permits are not issued for this act. Any proposed project must take measures to avoid the take of any migratory birds, nests, or eggs.
Migratory birds may nest on the ground, on structures, or in trees, shrubs, or other vegetation within the BSA. A preconstruction bird nesting survey will be conducted to identify active migratory bird nests in potentially impacted trees and shrubs prior to beginning construction during the nesting season of February 1 to September 1. If nesting birds are located, an appropriate disturbance-free buffer will be maintained until nesting is complete.

**California Fish and Game Code**

The majority of birds and mammals found in the BSA are protected under the California Fish and Game Code (CFGC). Through implementation of the proposed avoidance and minimization measures, the take of nests, eggs, young, or individuals of bird species is not anticipated. CFGC Sections 3503-3505, 3513, and 3800 make unlawful the take or possession of all migratory nongame birds and their nests. Caltrans will comply with these code sections through the proposed avoidance and minimization measures.

CFGC Section 4150 states that all non-game mammals or parts thereof may not be taken or possessed except as provided otherwise in the code or in accordance with regulations adopted by CDFW. Activities resulting in mortality of non-game mammals or disturbances that cause the loss of maternity colonies of bats may be considered “take” by CDFW. The avoidance and minimization measures implemented to protect the special-status species discussed in this document also protect non-game mammals.

**Native Plant Protection Regulations**

**Invasive Species (Executive Order 13112)**

The intent of Executive Order 13112, Invasive Species, is “to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause.” The avoidance and minimization measures will control the introduction and spread of invasive species, such as barbed goat grass.

**California Native Plant Protection Act**

California’s Native Plant Protection Act requires all state agencies to conserve endangered and rare native plants (CFGC § 1900-1913). Provisions of this act prohibit the taking of listed plants from the wild and require notification of the CDFW at least 10 days prior to any change of land use. As required, Caltrans has conducted a botanical survey of the BSA and will continue to consult with CDFW during project planning to comply with the provisions of this act; however, no effects to endangered or rare native plants are expected.
Native and Heritage Tree Removal

The BSA contains oak trees protected under the Napa County General Plan resource goals and policies (Napa County 2009). The general plan requires compliance with the Oak Woodlands Preservation Act (Public Resource Code Section 21083.4), which conserves the integrity and diversity of oak woodlands, and to the maximum extent feasible, retains existing oak woodlands.

During construction, a biologist will work with the project engineer to avoid removal of mature trees to the maximum extent feasible.
The archaeological research conducted for the proposed project as part of Caltrans’ regulatory responsibilities under the PA did not result in the identification of any previously recorded or unrecorded cultural resources.

Caltrans contacted the Native American Heritage Commission on April 12, 2016 requesting a review of their sacred lands file for any historically significant resources within or near the project area. No Native American sacred sites were identified through this search. The NAHC provided a list of interested individuals and organizations for further consultation. Letters were sent to each of the listed parties on April 20, 2016. A representative from Federated Indians of Graton Rancheria stated that the project was not in their ancestral territory and therefore had no concerns. Representatives from the Middleton Rancheria of Pomo Indians, the Mishewal Wappo of Alexander Valley, and the Cortina Band of Indians had no concerns. A records search at the Northwest Information Center of the California Historical Resources Information System conducted on June 1, 2016 and an intensive pedestrian survey conducted on June 8, 2016 and did not identify any previously unidentified cultural resources within the Project Area Limits. Analysis of the OCRS Geographic Information System (GIS) sensitivity model has shown little potential for buried cultural resources within the Project Area Limits.

There are no historical resources within the Project Area Limits.
Avoidance and Minimization Measures

- If cultural materials are discovered during construction, all work must stop within a 60 foot radius of the discovery area until a qualified archaeologist can assess the nature and significance of the find. Immediately protect the discovery area and notify the engineer and Department archaeologist.

- If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC, which will the notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Brett Rushing, District Office Chief, Caltrans District 4 Office of Cultural Resource Studies, at the same time as the coroner so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

No Impacts to sensitive paleontological resources is anticipated. The project site is within previously disturbed soil due to agricultural activities, and overlies land known to contain paleontologically sensitive material. Proposed excavations are shallow, less than five feet deep, and do not meet the criteria for monitoring. No further paleontological work is necessary.

<table>
<thead>
<tr>
<th>Proposed</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
</table>

VI. GEOLOGY AND SOILS: Would the project:

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? Refer to Division of Mines and Geology Special Publication 42?

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?

☐ ☐ ☐ ☒

The project as proposed would not expose the public to surface fault rupture caused by shallow earthquakes, or hazards caused by strong ground shaking such as liquefaction or settlement. The proposed project would not expose the public to landslides, or erodible or unstable soils. Strong seismic ground shaking may exist, however, this is an existing hazard at the site and the project would not further expose the public to such hazards. No unique geologic features would be impacted by the proposed project.

VII. GREENHOUSE GAS EMISSIONS: Would the project:

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

While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans’ determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project’s direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. See http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

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

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions
reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation¹. In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles make up the largest source of GHG-emitting sources². The dominant GHG emitted is CO₂, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change: “Greenhouse Gas Mitigation” and “Adaptation.” “Greenhouse Gas Mitigation” is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. “Adaptation” refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)³.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing travel activity), 3) transitioning to lower GHG-emitting fuels, and 4) improving vehicle technologies/efficiency. To be most effective all four strategies should be pursued cooperatively. ⁴

**Regulatory Setting**

This section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

**State**

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California has been innovative and pro-active in addressing GHG emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order S-3-05 (EO) (June 1, 2005): The goal of this EO is to reduce California’s GHG emissions to: 1) year 2000 levels by 2010, 2) year 1990 levels by the 2020, and 3) 80 percent

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² https://www.arb.ca.gov/cc/inventory/data/data.htm
³ http://climatechange.transportation.org/ghg_mitigation/
⁴ http://www.fhwa.dot.gov/environment/climate_change/mitigation/
below the year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill 32 in 2006 and SB32 in 2016.

Assembly Bill 32 (AB 32), Chapter 488, 2006  Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” The Legislature also intended that that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California’s transportation fuels is to be reduced by at least ten percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 greenhouse gas reduction goals.


Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board (CARB) to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan for the achievement of the emissions target for their region.

Senate Bill 391 (SB 391) Chapter 585, 2009 California Transportation Plan: This bill requires the State’s long-range transportation plan to meet California’s climate change goals under AB 32.

Executive Order B-16-12 (March 2012) orders State entities under the direction of the Governor including ARB, the Energy Commission, and Public Utilities Commission to support the rapid commercialization of zero emission vehicles. It directs these entities to achieve various benchmarks related to zero emission vehicles,

Executive Order B-30-15 (April 2015), establishes an interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 in
order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders that all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO2e). Finally, it requires the Natural Resources Agency to update the state’s climate adaptation strategy, Safeguarding California, every three years, and to ensure that its provisions are fully implemented.

Senate Bill 32 (SB32) Chapter 249, 2016, this legislation codifies the greenhouse gas reduction targets to achieve a mid-range goal of 40 percent below 1990 levels by 2030 established in EO B-30-15.

Federal

Although climate change and GHG reduction are a concern at the federal level; to date no national standards have been established for nationwide mobile source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Council on Environmental Quality (CEQ) released final guidance (Aug1, 2016) for Federal agencies on how to consider the impacts of their actions on global climate change in their National Environmental Policy Act (NEPA) reviews. This final guidance provides a framework for agencies to consider both the effects of a proposed action on climate change, as indicated by its estimated greenhouse gas emissions, and the effects of climate change on a proposed action. The final guidance applies to all types of proposed Federal agency actions that are subject to NEPA analysis and guides agencies on how to address the greenhouse gas emissions from Federal actions and the effects of climate change on their proposed actions within the existing NEPA regulatory framework.

FHWA supports the approach that climate change considerations should be integrated throughout the transportation decision-making process, from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life. The four strategies outlined by FHWA to
lessen climate change impacts correlate with efforts that the state is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity. 

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency.

The Energy Policy Act of 1992 (102nd Congress H.R.776,ENR, abbreviated as EPACT92) was passed by Congress and set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. The Act consists of twenty-seven titles detailing various measures designed to lessen the nation's dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light duty alternative fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The primary goal of the Program is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020.

Energy Policy Act of 2005(109th Congress H.R.6 (2005-2006) Sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) Indian energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

Energy Policy and Conservation Action of 1975 and Corporate Average Fuel Standards

The Energy Policy and Conservation Act of 1975 (42 USC Section 6201 [1975]) establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy (CAFE) program on the basis of each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States.

Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance 74 Federal Register 52117 (October 8, 2009). The Executive Order set sustainability goals for federal agencies and focuses on making improvements in their environmental, energy, and economic performance. Instituted policy of the United States that Federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities.

Executive Order 13653 Preparing the United States for the Impacts of Climate Change (78 Federal Register 66817,November 6, 2013) Builds on a previously released (and since revoked) EO 13514 Federal Leadership in Environmental Energy, and Economics Performance to establish direction for federal agencies on how to improve on climate preparedness and resilience strategies.

President Obama’s Climate Action Plan June 2013, President Obama announced a comprehensive plan for action to cut carbon pollution, prepare the Nation for the impacts of climate change, and lead international efforts to address climate change as a global challenge.
The Plan builds on the work of the 13 USGCRP member agencies, the USGCRP National Climate Assessment program, and the Interagency Climate Change Adaptation Task Force.

Executive Order 13693 Planning for Federal Sustainability (80 Federal Register 15869, March 2015). Reaffirms the policy of the United States that Federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities. Sets sustainability goals for all agencies to promote energy conservation, efficiency, and management while by reducing energy consumption and GHG emissions. Builds on the adaptation and resiliency goals in EO 13693 to ensure agency operations and facilities prepare for impacts of climate change. Revokes EO 13514.

U.S. EPA’s authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court’s ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court’s interpretation of the existing Act and EPA’s assessment of the scientific evidence that form the basis for EPA’s regulatory actions.

U.S. EPA in conjunction with NHTSA issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010[1] and significantly increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards set a requirement to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because NHTSA cannot set standards beyond model year 2021 due to statutory obligations and the rules’ long timeframe, a mid-term evaluation is included in the rule. The Mid-Term Evaluation is the overarching process by which NHTSA, EPA, and the California Air Resources Board (CARB) will decide on CAFE and GHG emissions standard stringency for model years 2022-2025. Standards for model years 2022 through 2025 have not been formally adopted by NHTSA.

NHTSA and EPA issued a Final Rule for “Phase 2” for medium and heavy duty vehicles to improve fuel efficiency and cut carbon pollution. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO2 emissions by up to 1.1 billion metric tons over the lifetimes of model years 2018-2029 vehicles.

Environmental Setting

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)], which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required the California Air Resources Board (ARB or Board) to

develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in 2008 and must be updated every five years. The First Update to the Climate Change Scoping Plan was approved by the Board on May 22, 2014. ARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target established in Executive Order B-30-15 and Senate Bill 32 (SB32).

The AB 32 Scoping Plan and the subsequent update contains the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, CARB released the GHG inventory for California (Forecast last updated: March 24, 2014). The forecast is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented.

An emission projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided below represents a Business-as-Usual (BAU) scenario assuming none of the Scoping Plan measures are implemented. The 2020 BAU emissions estimate assists the Air Resources Board (ARB) in demonstrating progress toward meeting the 2020 goal of 431 MMTCO2e.\(^5\)

The 2020 BAU emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the recent economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario includes reductions anticipated from Pavley I and the Renewable Electricity Standard (30 MMTCO2e total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 MMTCO2e.

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\(^5\) the revised target using Global Warming Potentials (GWP) from the IPCC Forth Assessment Report (AR4)
**Project Analysis**

The purpose of this project is to repair the damaged embankment and improve the drainage systems at two locations on SR 121 in Napa County.

**Construction Emissions**

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.
Greenhouse Gas Reduction Strategies

Caltrans continues to be involved on the Governor’s Climate Action Team as the ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32.

Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. Caltrans works closely with local jurisdictions on planning activities, but does not have local land use planning authority. Caltrans assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards if held by the U.S. EPA and ARB.

Caltrans is also working towards enhancing the State’s transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under Senate Bill (SB) 375, SB 391 require the State’s long-range transportation plan to meet California’s climate change goals under AB 32.

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California’s future, statewide, integrated, multimodal transportation system.

The purpose of the CTP is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the CTP 2040 will identify the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the State’s transportation needs.

Caltrans Director’s Policy 30 (DP-30) Climate Change (June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities.

Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

In addition, the YSAQMD CEQA Guidelines provides the following feasible control measures for construction emissions (see Section III, Air Quality):

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

3. Implementation of idling restrictions during construction will reduce temporary greenhouse gas emissions from this project.

4. All new lighting structures will utilize light-emitting diode (LED) light bulbs

**Adaptation Strategies**

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011, outlining the federal government's progress in expanding and strengthening the Nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provides an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as freshwater, and providing accessible climate information and tools to help decision-makers manage climate risks.

Climate change adaptation must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

6 [http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation](http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation)
On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed a number of state agencies to address California’s vulnerability to sea level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea level rise.

All state agencies that are planning to construct projects in areas vulnerable to future sea level rise are directed to consider a range of sea level rise scenarios for the years 2050 and 2100 to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data.

Although the proposed project is outside the coastal zone, the Cal Adapt website was reviewed for potential impacts to the surrounding Delta area for potential inundation potentially exacerbated by projected future sea level rise. Direct impacts to transportation facilities due to projected sea level rise are not expected.

Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change effects, Caltrans has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, Caltrans will be able review its current design standards to determine what changes, if any, may be needed to protect the transportation system from sea level rise.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is an active participant in the efforts being conducted in response to EO S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.

### VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

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

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
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</table>
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? ☐ ☐ ☐ ☒
The project is within an area where soil likely contains detected levels of surface-deposited contaminants, such as aerially deposited lead (ADL) and petroleum hydrocarbons. Since this project involves roadway widening and therefore soil excavation activities, a soil investigation is necessary during the design phase of the project in order to define the concentrations of these contaminants in the soil and to evaluate feasible methods for soil handling and management.

An excavation and transportation plan would be submitted by the contractor to manage the disturbance of soil affected by aerially deposited lead (ADL), and jobsite management would be in the contractor’s water pollution control program (WPCP) to describe management of the project site during construction activities, including but not limited to: temporary soil stabilization, temporary sediment control, tracking control, wind erosion control, material pollution prevention and control, waste management, and non-storm water management.

The proposed project is located in an area where naturally occurring asbestos is not an issue. The proposed project is located far from any industrial lead source. However, lead-contaminated waste might be generated by this project during excavation of ADL-impacted soil. Since the project would disturb lead-contaminated soil, Caltrans’ project specifications would require a lead compliance plan (LCP) to minimize worker exposure. Jobsite management of hazardous waste would be detailed in the project’s WPCP to minimize or prevent discharge of dust to air, receiving waters, and drainage systems.

<table>
<thead>
<tr>
<th>IX. HYDROLOGY AND WATER QUALITY: Would the project:</th>
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<tbody>
<tr>
<td>a) Violate any water quality standards or waste discharge requirements?</td>
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<tr>
<td>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)?</td>
</tr>
<tr>
<td>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?</td>
</tr>
<tr>
<td>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?</td>
</tr>
</tbody>
</table>
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 ☑ ☐ ☐ ☑ ☐

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 06055C0440E, effective September 26, 2008, shows a Zone A floodplain adjacent to the project area. The Zone A floodplain denotes a base floodplain with undetermined flood elevations. RSP proposed as part of the slope repair work and energy dissipation for the cross culverts will be within the limits of the base floodplain. However, as this will restore an existing slope, it is not expected to have any adverse impact on the base floodplain.

Section 404 of the Clean Water Act (CWA) regulates discharges to Waters of the US and is administered nationwide by the US Army Corps of Engineers (USACE). CWA Section 401 requires that states certify 404 permits, and such 401 certification is provided in California by the State Water Resources Control Board (SWRCB) or Regional Water Quality Control Boards (RWQCBs). This project is under the jurisdiction of the Central Valley Regional Water Quality Control Board. The project does not require Section 401 certification or Section 404 permit.

Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES) permit system, which is a framework for regulating municipal and industrial storm water discharges. The current Caltrans statewide NPDES storm water permit (Order No. 2012-0011-DWQ, as amended 2014-0077-DWQ), applies to Caltrans projects which completed their Project Initiation Document (PID) design phase on July 1, 2013 or after. This project completed its PID phase before July 1, 2013 and is therefore subject to the previous Caltrans statewide NPDES storm water permit (Order No. 99-06-DWQ).

The Department’s (Caltrans’) MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-0077-DWQ (effective July 1, 2014) and Order No. 2015-0036-EXEC (effective April 7, 2015) has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below);  

2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, the Department is developing a Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009 and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012). The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with the Department’s SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than one acre.

Impacts

Water Quality impacts that may result from this project would include increased sediment and pH impacts due to construction activities. An increase in impervious area may also increase sediment discharge to waters of the US.

Pollutants commonly found in runoff from Caltrans facilities include: Total Suspended Solids (TSS), nutrients, pesticides, metals (particulate and dissolved), pathogens, litter, Biochemical Oxygen Demand
(BOD), Total Dissolved Solids (TDS), zinc (total or dissolved), phosphorous, copper (total or dissolved), sediments and general metals. These pollutants were identified by Caltrans studies throughout California.

Minimization and Restoration

- Treatment BMPs address post-construction water quality impacts and remove pollutants from storm water runoff before it is discharged to receiving waters.

- Construction site BMPs include sediment control, tracking control and concrete washouts. Perimeter control such as silt fencing or fiber rolls can prevent sediment from washing into waters of the US. Street sweeping or construction site entrances may prevent trucks from tracking sediment on the roads.

- The project will replace all existing treatment destroyed by the proposed project in order to comply with the Statewide NPDES Permit. Caltrans is required to maintain all BMPs currently installed.

- This Project discharges to a TMDL (Total maximum Daily Load) required watershed (Berryessa Lake), where Caltrans named as stakeholder for Mercury. For this reason post construction treatment BMPs/mimimization measures will be anticipated for both impervious and pervious areas of the project area (Department’s Obligations).


<table>
<thead>
<tr>
<th>Impact Level</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
</table>

**X. LAND USE AND PLANNING:** Would the project:

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?

This project is consistent with state, regional, and local plans and programs.

**State Planning**

There is no available Transportation Concept Report (TCR) for this route. The Route Concept Report for Route 121 was last approved in 1985 with a 20-year projection. It states that no capacity improvements are planned and passing lanes should be considered. This project is identified in the 2016 SHOPE programming cycle under program code 201.131 for major damage restoration-permanent restoration. All projects funded by the SHOPE are limited to capital improvements that do not add new highway lanes to the State Highway System, hence widening for passing lanes is outside the scope of this project. There are several programmed and proposed projects within the vicinity of this project. See the Related Projects Section of this report for further information.

The 2012 **State Route 113 Transportation Concept Report** proposes a conceptual project to install a traffic signal at the SR 12/SR 113 intersection, the same location as the proposed project, to maintain efficient movement, including truck turning movements. Conceptual projects are not yet included in a planning or programming document, but are recommended to maintain mobility and access along the segment.

**Regional Planning**

The long-range regional transportation plan (RTP), called **Plan Bay Area**, was adopted by the Metropolitan Transportation Commission (MTC) in July 2013. **Plan Bay Area** does not identify any roadway improvement projects for this section of roadway; however it identifies Project ID Nos. 240612 and 230527, which propose to "Build out countywide primary bicycle network" in Napa County. The 2012 **Napa County Transportation & Planning Agency (NCTPA) Countywide Bicycle Plan** proposes this section of roadway as a proposed Class III bicycle route, as reflected in
The project description as defined in the 2016 SHOOP is for embankment stabilization and culvert repair, hence constructing a Class III bicycle route is outside the scope of this project.

The long-range regional transportation plan (RTP), called Plan Bay Area, was adopted by the Metropolitan Transportation Commission (MTC) in July 2013. Plan Bay Area does not identify any roadway improvement projects for this section of roadway. However, it identifies performance targets that align with the proposed project:

- Reduce per capita CO₂ emissions from cars and light-duty trucks by 15 percent (Statutory requirement is for year 2035, per SB 375).
- Reduce by 50 percent the number of injuries and fatalities from all collisions (including bike and pedestrian).

**Local Planning**

The 2013 Napa County General Plan lists this section of roadway as a rural thoroughway. Several Plan policies discuss the design of roadway features in rural areas of Napa County:

Policy CIR-5: Roadways outside the urbanized areas of the county shall reflect the rural character of the county.

Policy CIR-7: Roadway improvements shall be designed to conform to existing landforms and shall include landscaping and/or other treatments to ensure that aesthetics and rural character are preserved.

Policy CIR-8: Roadway, culvert, and bridge improvements and repairs shall be designed and constructed to minimize fine-sediment and other pollutant delivery to waterways, to minimize increases in peak flows and flooding on adjacent properties, and where applicable to allow for fish passage and migration, consistent with all applicable codes and regulations.

Policy CC-8: Scenic roadways which shall be subject to the Viewshed Protection Program are those shown in Figure CC-3, or designated by the Board of Supervisors in the future.

Policy CC-10: Consistent with the County’s Viewshed Protection Program, new developments in hillside areas should be designed to minimize their visibility from the County’s scenic roadways and discourage new encroachments on natural ridgelines. The County shall continue implementation of the Viewshed Protection Program and shall apply the protective provisions of the program to all public projects.

This project is consistent with these local plans and programs.

**Transit Operator Planning**

Transit services do not operate in this corridor.
### XI. MINERAL RESOURCES

Would the project:

<table>
<thead>
<tr>
<th>Potential</th>
<th>Less Than Significant with Mitigation</th>
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<th>No Impact</th>
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</tbody>
</table>

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?

<table>
<thead>
<tr>
<th>Potential</th>
<th>Less Than Significant with Mitigation</th>
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</table>

There are no documented mineral resources within the project area.

### XII. NOISE

Would the project result in:

<table>
<thead>
<tr>
<th>Potential</th>
<th>Less Than Significant with Mitigation</th>
<th>Less Than Significant Impact</th>
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</table>

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 groundborne vibration or groundborne 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?

<table>
<thead>
<tr>
<th>Potential</th>
<th>Less Than Significant with Mitigation</th>
<th>Less Than Significant Impact</th>
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<tbody>
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</table>

The project would not introduce new noise impacts or increase ambient noise levels. Construction noise will be temporary and would be within acceptable levels for construction activity. There are no sensitive receptors near the project site.
**XIII. POPULATION AND HOUSING:** Would the project:

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

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<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation</th>
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b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

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<thead>
<tr>
<th>Potentially Significant Impact</th>
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c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

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The project would not displace any housing units or people. The project is not growth inducing.

**XIV. PUBLIC SERVICES:**

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
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</table>

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?

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
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</table>

- Police protection?

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- Schools?

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- Parks?

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- Other public facilities?

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</table>
The proposed project would have no effect on the provision of, or the need for, public services. To maintain the flow of traffic during construction, Caltrans would prepare a Transportation Management Plan (TMP) that will ensure accessibility through the project area for vehicles associated with essential services.

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<tr>
<th>Potentially Significant Impact</th>
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</table>

**XV. RECREATION:**

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? ☒ ☒ ☒ ☒ ☒

The project does not include any recreational areas, nor would it limit access to recreational areas.

**XVI. TRANSPORTATION/TRAFFIC:** Would the project:

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

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

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)? ☒ ☒ ☒ ☒ ☒
A one-way traffic control system will be installed as needed for construction staging. This system will enable northbound and southbound traffic to alternate use of one open lane through the project area while the other lane is closed for construction purposes. No temporary construction access roads are proposed. One-way traffic control includes temporary signals, temporary striping and k-rail along the embankment reconstruction.

Complete highway night closures of SR 121 are proposed for approximately 12 days in order to repair/replace existing culverts and to reconstruct the embankment. Public traffic will be detoured to SR 29 and SR 128 during these closures. The general public will be properly notified through road signage and official notifications.

There is an entrance to an existing driveway on the east side of SR 121, just north of Location 2 within the project area. Efforts will be made to provide access to and from this driveway at all times during project construction.
XVII. TRIBAL CULTURAL RESOURCES: 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 size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

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

XVIII. UTILITIES AND SERVICE SYSTEMS: Would the project:

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? □ □ □ ✗

XIX. MANDATORY FINDINGS OF SIGNIFICANCE

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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? □ □ ✗ □

b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? □ □ □ ✗

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? □ □ □ ✗
Appendix A: Title VI Non-Discrimination Policy

March 2013

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

MALCOLM DOUGHERTY
Director

“Caltrans improves mobility across California.”
## Appendix B: List of Preparers

<table>
<thead>
<tr>
<th>Name</th>
<th>Office and Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shawn Hallum</td>
<td>Caltrans District 4 Office of Environmental Analysis</td>
</tr>
<tr>
<td>Melanie Hunt</td>
<td>Caltrans District 4 Office of Environmental Analysis</td>
</tr>
<tr>
<td>Wahida Rashid</td>
<td>Caltrans District 4 Office of Environmental Analysis</td>
</tr>
<tr>
<td>Jennifer Blake</td>
<td>Caltrans District 4 Office of Cultural Resource Studies</td>
</tr>
<tr>
<td>Kristina Montgomery</td>
<td>Caltrans District 4 Office of Cultural Resource Studies</td>
</tr>
<tr>
<td>Kathryn Rose</td>
<td>Caltrans District 4 Office of Cultural Resource Studies</td>
</tr>
<tr>
<td>Noah Stewart</td>
<td>Caltrans District 4 Office of Cultural Resource Studies</td>
</tr>
<tr>
<td>Susan Lindsay</td>
<td>Caltrans District 4 Office of Landscape Architecture</td>
</tr>
<tr>
<td>Marta McCardy</td>
<td>Caltrans District 4 Office of Landscape Architecture</td>
</tr>
<tr>
<td>Robert Blizard</td>
<td>Caltrans District 4 Office of Biological Sciences and Permits</td>
</tr>
<tr>
<td>Holly Barbare</td>
<td>CH2M Hill Biological Consultant</td>
</tr>
<tr>
<td>Chris Padick</td>
<td>Caltrans District 4 Office of Environmental Engineering (Erosion Control)</td>
</tr>
<tr>
<td>Ray Boyer</td>
<td>Caltrans District 4 Office of Environmental Engineering (Air/Noise)</td>
</tr>
<tr>
<td>Mostafa Faghihi</td>
<td>Caltrans District 4 Office of Environmental Engineering (Water Quality)</td>
</tr>
<tr>
<td>Norman Gonsalves</td>
<td>Caltrans District 4 Office of Environmental Engineering (Water Quality)</td>
</tr>
<tr>
<td>Chris Wilson</td>
<td>Caltrans District 4 Office of Environmental Engineering (Hazardous Waste)</td>
</tr>
<tr>
<td>Khai Leong</td>
<td>Caltrans District 4 Office of Hydraulics</td>
</tr>
<tr>
<td>Chris Risden</td>
<td>Caltrans District 4 Office of Geotechnical Design – West</td>
</tr>
<tr>
<td>Arick Bayford</td>
<td>Caltrans District 4 Office of Design – North Counties</td>
</tr>
<tr>
<td>Roni Boukhalil</td>
<td>Caltrans District 4 Office of Design – North Counties</td>
</tr>
<tr>
<td>Santi Lombardo Jr.</td>
<td>Caltrans District 4 Office of Project Management</td>
</tr>
<tr>
<td>Kelly Hirschberg</td>
<td>Caltrans District 4 Office of Project Management</td>
</tr>
</tbody>
</table>
Appendix C: Glossary

°F  degrees Fahrenheit
BMP  best management practice
BSA  biological study area
Caltrans  California Department of Transportation
CDFW  California Department of Fish and Wildlife
CFGC  California Fish and Game Code
CFR  Code of Federal Regulations
CH2M  CH2M HILL, Inc.
CMP  corrugated metal pipe
CNDDB  California Natural Diversity Database
CNPS  California Native Plant Society
DBH  diameter at breast height
ESA  environmentally sensitive area
IPaC  Information for Planning and Conservation
MBTA  Migratory Bird Treaty Act
NMFS  National Marine Fisheries Service
NRCS  Natural Resources Conservation Service
OHWM  ordinary high water mark
PM  Post Mile
RSP  rock slope protection
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Name</th>
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<tbody>
<tr>
<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
</tr>
<tr>
<td>SR</td>
<td>State Route</td>
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<tr>
<td>SWRCB</td>
<td>State Water Resources Control Board</td>
</tr>
<tr>
<td>USACE</td>
<td>United States Army Corps of Engineers</td>
</tr>
<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Service</td>
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<tr>
<td>USGS</td>
<td>United States Geological Survey</td>
</tr>
<tr>
<td>WPCP</td>
<td>water pollution control plan</td>
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</tbody>
</table>
Appendix D: List of Technical Studies


Biological Assessment (BA) – April 2017

Delineation of Waters of the U.S. - August 2016


Natural Environment Study (NES) – April 2017

Visual Impact Assessment (VIA) – October 2016

Water Quality Report (WQR) – November 2016
# Appendix E: Species List

## Selected Elements by Scientific Name

**California Department of Fish and Wildlife**

**California Natural Diversity Database**

**Query Criteria:** Quads: Capel Valley (3812242), Chiles Valley (3812253), Fairfield North (3812231), Lake Berryessa (3812252), Monticello Dam (38112251), Mt. George (3812229), Mt. Vacaville (3812241), Napa (3812223), Yountville (3812243)

<table>
<thead>
<tr>
<th>Species</th>
<th>Element Code</th>
<th>Federal Status</th>
<th>State Status</th>
<th>Global Rank</th>
<th>State Rank</th>
<th>Rare Plant Rank/CDFW</th>
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<tbody>
<tr>
<td><em>Aplatus schoolet</em></td>
<td>ABPBX0020</td>
<td>None</td>
<td>Candidate Endangered</td>
<td>G2G3</td>
<td>S1S2</td>
<td>SSC</td>
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<tr>
<td><em>Agrosis hendersoni</em></td>
<td>PMAOA040K0</td>
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<td>None</td>
<td>G200</td>
<td>S2</td>
<td>3.2</td>
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<tr>
<td><em>Aristoasis pallida</em></td>
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<td>None</td>
<td>G5</td>
<td>S3</td>
<td>SSC</td>
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<td><em>Aquila chrysaetos</em></td>
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<td>None</td>
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<td><em>Ardea alba</em></td>
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<td>None</td>
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<td><em>Astragalus racem var. racem</em></td>
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<td>None</td>
<td>G2T2</td>
<td>S2</td>
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<td><em>Bembus occidentals</em></td>
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<td>None</td>
<td>G2G3</td>
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<tr>
<td><em>Branchinecta lynchi</em></td>
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<td>S3S7</td>
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<td>Common Name</td>
<td>CA Rare Plant Rank</td>
<td>State Listing Status</td>
<td>Federal Listing Status</td>
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<td>Agrostis hendersoni</td>
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<td>Amorpha californica var. napensis</td>
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<td>Antirrhinum virga</td>
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<td>Arabis modesta</td>
<td>modest rockcress</td>
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<td>None</td>
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<td>Astragalus claranus</td>
<td>Clara Hunt’s milk-vetch</td>
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<td>Astragalus clevelandii</td>
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<td>big-scale balsamroot</td>
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<td>Brodiaea leptandra</td>
<td>narrow-anthered brodiaea</td>
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<td>Mt. Diablo fairy-lantern</td>
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<td>None</td>
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<td>Calystegia collina ssp. oxyphylla</td>
<td>Mt. Saint Helena morning glory</td>
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<td>Castilleja ambigua var. ambigua</td>
<td>johnny-nip</td>
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<td>None</td>
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<td>Castilleja ambigua var. meadii</td>
<td>Mead’s owl’s-clover</td>
<td>18.1</td>
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<td>Ceanothus purpureus</td>
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<td>pappose tarplant</td>
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<td>Tracy's clarkia</td>
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<td>dwarf downingia</td>
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<td>Erigeron greenii</td>
<td>Greene’s narrow-leaved daisy</td>
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<td>Eryngium jeppsonii</td>
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<tr>
<td>Eriogonum joaquinana</td>
<td>San Joaquin spearscale</td>
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<td>Fritillaria pluriflora</td>
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<td>nodding harmonia</td>
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<tr>
<td>Hesperolinon sharsmithiae</td>
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<td>Iguans hirdsii</td>
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<td>Contra Costa goldfields</td>
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<tr>
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<td>Delta tule pea</td>
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<tr>
<td>Lathyrus septentrionalis</td>
<td>Colusa layia</td>
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<tr>
<td>Legenera limosa</td>
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<tr>
<td>Leptosiphon jeppsonii</td>
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<tr>
<td>Leptosiphon latiscus</td>
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<tr>
<td>Liliaeopsis masonii</td>
<td>Mason’s liliaeopsis</td>
<td>18.1</td>
<td>CR</td>
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<tr>
<td>Lilium rubescens</td>
<td>redwood lily</td>
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</table>
### NOAA Fisheries ESA Listed Species, Critical Habitat, Essential Fish Habitat, and MMPA Species Data

**November 2016**

#### ESA Anadromous Fish
- Endangered (E) - Threatened (T)
- COHO
- CHINOOK
- STEELHEAD
- Lutachan
- Southern DPS Groom
- Surgeon

#### X = Present on the Quad

<table>
<thead>
<tr>
<th>Quad Name</th>
<th>Quad No.</th>
<th>COHO</th>
<th>CHINOOK</th>
<th>STEELHEAD</th>
<th>Lutachan</th>
<th>Southern DPS Groom</th>
<th>Surgeon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capell Valley</td>
<td>36122-D2</td>
<td>X</td>
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</table>

#### ESA Anadromous Fish Critical Habitat

#### X = Present on the Quad

<table>
<thead>
<tr>
<th>Quad Name</th>
<th>Quad No.</th>
<th>COHO</th>
<th>CHINOOK</th>
<th>STEELHEAD</th>
<th>Lutachan</th>
<th>Southern DPS Groom</th>
<th>Surgeon</th>
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<td>Capell Valley</td>
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</table>

#### ESA Marine Invert.

- Black Abalone (E)
- White Abalone (E)

#### ESA Marine Invert. Crit. Habitat

- Coho
- Chinook

#### ESA Sea Turtles

- Leatherback
- Pacific Green
- Olive Ridley

#### ESA Whales

- Steller Sea Lion

#### MMPA Species

- Salmon

#### Essential Fish Habitat

- Coho
- Chinook

#### X = Present on the Quad

<table>
<thead>
<tr>
<th>Quad Name</th>
<th>Quad No.</th>
<th>COHO</th>
<th>CHINOOK</th>
<th>STEELHEAD</th>
<th>Lutachan</th>
<th>Southern DPS Groom</th>
<th>Surgeon</th>
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<tbody>
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<td>Capell Valley</td>
<td>36122-D2</td>
<td>X</td>
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</table>
In Reply Refer To:
Consultation Code: 08ESMF00-2017-SLI-1750
Event Code: 08ESMF00-2017-E-04424
Project Name: Capell Creek Storm Damage Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

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

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List
Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600
Project Summary

Consultation Code: 08ESMF00-2017-SLI-1750

Event Code: 08ESMF00-2017-E-04424

Project Name: Capell Creek Storm Damage Project

Project Type: TRANSPORTATION

Project Description: The project proposes to repair the damaged embankment and improve the drainage systems at Post Mile 20.61 and 20.64 on State Route 121 in Napa County.

Project Location:
Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.43286878708572N122.2059565494667W

Counties: Napa, CA

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.
### Birds

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Spotted Owl (<em>Strix occidentalis caurina</em>)</td>
<td>Threatened</td>
</tr>
<tr>
<td>There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/1123">https://ecos.fws.gov/ecp/species/1123</a></td>
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### Amphibians

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Red-legged Frog (<em>Rana draytonii</em>)</td>
<td>Threatened</td>
</tr>
<tr>
<td>There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.</td>
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<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a></td>
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<tr>
<td>California Tiger Salamander (<em>Ambystoma californiense</em>)</td>
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</tr>
<tr>
<td>Population: U.S.A. (Central CA DPS)</td>
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<tr>
<td>There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.</td>
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<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a></td>
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### Fishes

<table>
<thead>
<tr>
<th>NAME</th>
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</thead>
<tbody>
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<td>Delta Smelt (<em>Hypomesus transpacificus</em>)</td>
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<tr>
<td>Steelhead (<em>Oncorhynchus (=Salmo) mykiss</em>)</td>
<td>Threatened</td>
</tr>
<tr>
<td>Population: Northern California DPS</td>
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<tr>
<td>There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.</td>
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</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/1007">https://ecos.fws.gov/ecp/species/1007</a></td>
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## Crustaceans

<table>
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<td>California Freshwater Shrimp (<em>Syncaris pacifica</em>)</td>
<td>Endangered</td>
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<tr>
<td>No critical habitat has been designated for this species.</td>
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</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/7903">https://ecos.fws.gov/ecp/species/7903</a></td>
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<tr>
<td>Conservancy Fairy Shrimp (<em>Branchinecta conservatio</em>)</td>
<td>Endangered</td>
</tr>
<tr>
<td>There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a></td>
<td></td>
</tr>
</tbody>
</table>

## Flowering Plants

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contra Costa Goldfields (<em>Lasthenia conjugens</em>)</td>
<td>Endangered</td>
</tr>
<tr>
<td>There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/7058">https://ecos.fws.gov/ecp/species/7058</a></td>
<td></td>
</tr>
<tr>
<td>Few-flowered Navarretia (<em>Navarretia leucocephala ssp. pauciflora</em> (=<em>N. pauciflora</em>))</td>
<td>Endangered</td>
</tr>
<tr>
<td>No critical habitat has been designated for this species.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/8242">https://ecos.fws.gov/ecp/species/8242</a></td>
<td></td>
</tr>
<tr>
<td>Keck’s Checker-mallow (<em>Sidalcea keckii</em>)</td>
<td>Endangered</td>
</tr>
<tr>
<td>There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/5704">https://ecos.fws.gov/ecp/species/5704</a></td>
<td></td>
</tr>
</tbody>
</table>

## Critical habitats

There are no critical habitats within your project area.
Appendix F: Project Layout Sheet

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Appendix G: Project Typical X-Sections

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Appendix H: Proposed Night-time Road Closure

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Proposed Detour Exhibit

PROJECT LOCATION