

# PLA 65 Coon Creek Conservation Ranch

Placer County, California  
03-PLA-65 PM: 19.46  
EA: 03-1H530/EFIS: 0316000177  
SCH No: 0000000000

## Initial Study with Proposed Mitigated Negative Declaration



Prepared by the  
State of California Department of Transportation



December 2019

## General Information about This Document

### What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS), which examines the potential environmental impacts for the proposed project. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, how the existing environment could be affected by the project, the potential impacts of the project, 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 Caltrans District 3 office at 703 B Street, Marysville, CA 95901. Copies of the Initial Study are available for review at the Lincoln Library at 485 Twelve Bridges Dr, Lincoln, CA 95648.
- This document has also been made available online at the following website:  
<http://www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm>
- We'd like to hear what you think. If you have any comments about the proposed project, please send your written comments to Caltrans by the deadline.
- Send comments via postal mail to:  
Tracy Robinson, Environmental Planner  
Attn: Tracy Robinson  
Department of Transportation, District 3 Environmental Planning  
703 B Street, Marysville, CA 95901
- Send comments via email to: [Tracy.Robinson@dot.ca.gov](mailto:Tracy.Robinson@dot.ca.gov)
- Be sure to send comments by the deadline: March 27, 2020

### What happens next:

After comments are received from the public and reviewing agencies, Caltrans may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is obtained, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Tracy Robinson, Environmental Planner District 3, 703 B Street, Marysville, CA 95901, (530) 741-5533 Voice, or use the California Relay Service TTY number, 711 or 1-800-735-2929.

## **PLA 65 Coon Creek Conservation Ranch**

Creating wetland and riparian habitat by redirecting an existing stream back to its historic channel in Placer County, PM 19.40

### **INITIAL STUDY with Proposed Mitigated Negative Declaration**

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA  
Department of Transportation

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Date of Approval

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Mike Bartlett, Acting Office Chief  
North Region Office of Environmental Management  
California Department of Transportation

## **PROPOSED MITIGATED NEGATIVE DECLARATION**

Pursuant to: Division 13, Public Resources Code

SCH:0000000000

### ***Project Description***

The California Department of Transportation (Caltrans) District 3, proposes to create wetlands, waters and riparian habitat mitigation at the Coon Creek Conservation Ranch in Placer County, by redirecting an existing stream back into its historic channel and grading adjacent areas to encourage wetland creation. The scope of work will involve recontouring the historic channel to provide an additional area to create wetlands. The new route is expected to add new stream bed and bank and maintain the current flow in the upland ditch. The rerouted stream will be planted with riparian species and the graded wetland will also be seeded and planted.

### ***Determination***

Caltrans has prepared an Initial Study for this project, and pending public review, expects to determine 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 effect regarding aesthetics, agriculture and forest resources, air quality, energy, geology/soils, greenhouse gas emissions, hazards and hazardous materials, land use and planning, mineral resources, noise population/housing, public services, recreation, transportation, utilities/service systems, wildfires and any mandatory findings of significance.

The proposed project would have less than significant impacts on biology and cultural resources.

2/24/2020  
Date of Approval

  
Mike Bartlett, Acting Office Chief  
North Region Office of Environmental Management  
California Department of Transportation

## Table of Contents

<b>Chapter 1</b>	Proposed Project	1
<b>Chapter 2</b>	Environmental Factors Potentially Affected/CEQA Environmental Checklist	8
<b>Chapter 3</b>	Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures	23
<b>Chapter 4</b>	References	56
<b>Chapter 5</b>	List of Preparers	58
<b>Chapter 6</b>	Title VI Policy Statement	59



# **Chapter 1**      Proposed Project

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## **Introduction**

The California Department of Transportation (Caltrans) proposes an advance mitigation project in Placer County on McCourtney Road near the town of Sheridan. The property is located near State Route (SR) 65, post mile (PM) 19.46 at the Wise Road exit. The project encompasses 17 acres of a 186-acre parcel owned by Caltrans. This project would restore an altered stream to its historical natural watercourse creating riparian, wetland, and other waters.

Caltrans is the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). This Initial Study with Proposed Mitigated Negative Declaration has been prepared in compliance with CEQA. A Categorical Exclusion will be prepared pursuant to NEPA.

## **Project Purpose and Need**

The purpose of this project is to create riparian, wetland, and other waters mitigation in advance of impacts resulting from future Safety Highway Operation Protection Program (SHOPP) projects. This project is needed because Caltrans is required by law to provide compensatory mitigation for riparian habitat, wetlands, and waters when any project results in impacts to those natural resources.

## **Project Description**

The proposed project would create wetlands, waters and riparian habitat mitigation by redirecting an existing stream back into its historic channel and grading adjacent areas to encourage wetland creation. The work will involve recontouring the historic channel to provide an additional area to create wetlands. The new route is expected to add new stream bed and bank and maintain the current flow in the upland ditch. The rerouted stream will be planted with riparian species and the graded wetland will also be seeded and planted.

## **Project Funding**

It has been determined that this project is eligible for Federal-aid funding and is anticipated to be fully funded within the 2018 State Highway Operation and Protection Program (SHOPP).

## **Build Alternatives**

The build alternatives will include the following features:

### **Alternative 1**

- Recontouring a historic stream channel to provide additional areas to create wetlands.
- Flow diversion will be utilized to split the incoming flow to the property in two-directions to maintain the current ditch that is in an upland habitat and to restore the flow to its historic channel.
- The newly rerouted stream will be planted with riparian species and the newly created wetland will also be seeded and planted.

### **No Build Alternative**

- The no build alternative does not address the project purpose and need.

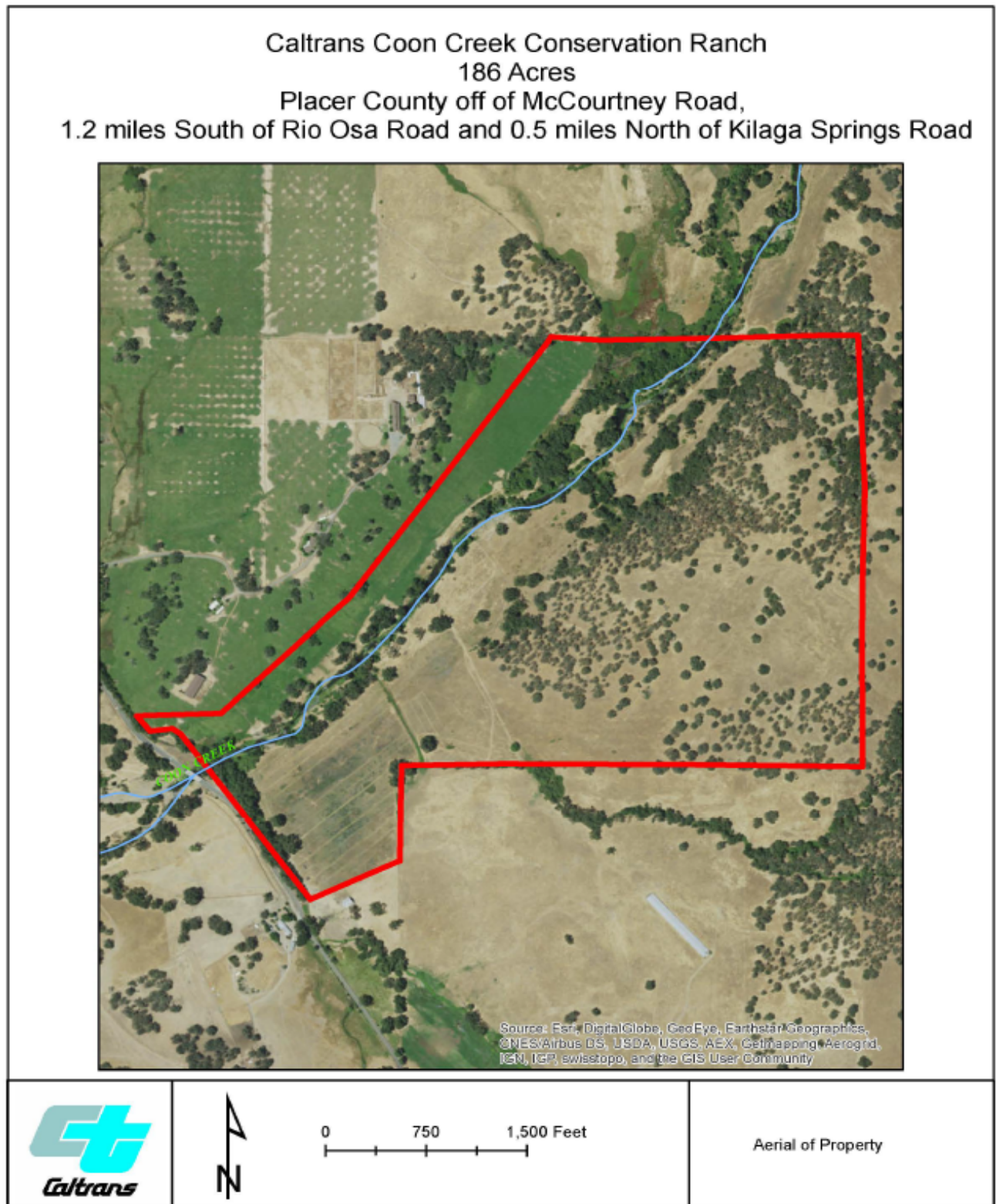


**Project Location Map  
&  
Environmental Study Limits (ESL) Mapping**

**Figure 1: Project Location Map**

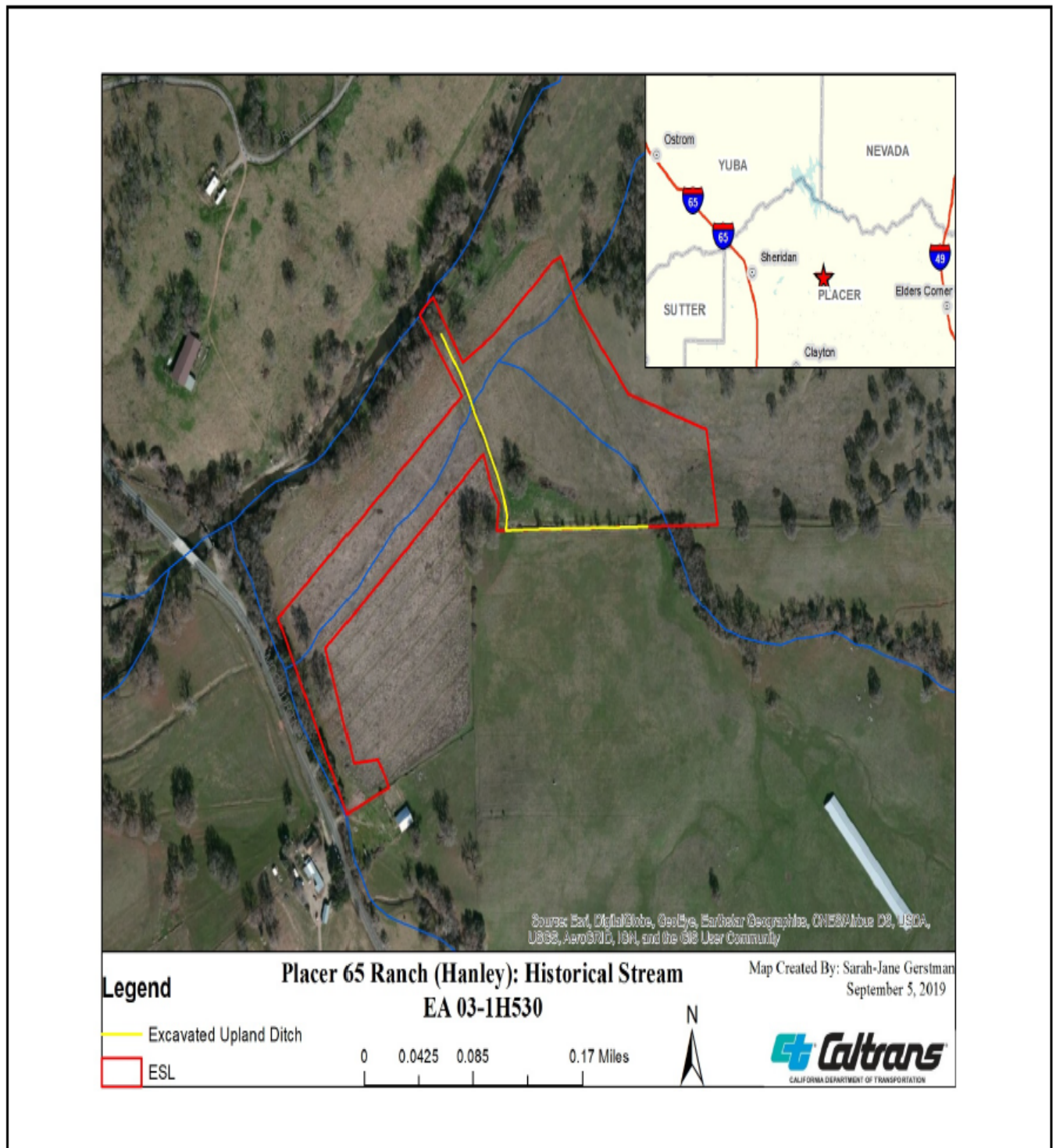


**Figure 2: Full parcel of the Caltrans Coon Creek Conservation Ranch**





**Figure 3: Mapping of ditch and historical stream (depicted in blue)**



## Permits and Approvals Needed

The following permits, licenses, agreements, and certification (PLACS) are required for project construction.

Agency	Permits	Status
United States Army Corps of Engineers	Section 404 Permit for filling or dredging water of the United States	Pending
California Department of Fish and Wildlife	1602 Agreement for Streambed Alteration Agreement	Pending
California Regional Water Quality Control Board	Section 401 Water Quality Certification	Pending

## Chapter 2 Environmental Factors Potentially Affected/CEQA Environmental Checklist

The environmental factors checked below would be potentially affected by this project as indicated by the checklist on the following pages

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

### Determination

On the basis of this initial evaluation.

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.

Signature:	Date:
Printed Name:	For:

## 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. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, as well as standard measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are an integral part of the project and have been considered prior to any significance determinations documented below.

### Aesthetics

#### CEQA Significance Determinations for Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

- a) Have a substantial adverse effect on a scenic vista?
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

**Explanation for a, b, c and d – No Impact.** The “No Impact” determinations in this section are based on the project scope, field reviews and the visual Impact Assessment (VIA) prepared September 16, 2019. The project area is not eligible for designation as a State Scenic Highway. The project will not impact any aesthetic features.

# Agriculture and Forest Resources

## CEQA Significance Determinations for 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 Department 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:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?
- d) Result in the loss of forest land or conversion of forest land to non-forest use?
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

**Explanation for a, b, c, d and e – No Impact.** The “No Impact” determinations in this section are based on the project scope and field reviews. No Williamson Act land or forest land was identified within the project limits. There are no timberlands and rezoning will not occur in the project vicinity, therefore, there are no impacts.



## **Air Quality**

### **CEQA Significance Determinations for Air Quality**

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Would the project:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

**Explanation for a, b, c, and d – No Impact.** The “No Impact” determinations in this section are based on the project scope, field reviews and information provided in the Air Quality Report prepared September 18, 2019. The proposed project would not result in changes to the traffic volume, fleet mix, speed, location of existing facility or any other factor that would cause an increase in emissions relative to the no build alternative; therefore, this project would not cause an increase in operational emissions.

## **Biological Resources**

### **CEQA Significance Determinations for Biological Resources**

Would the project:

- a) Have 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, U.S. Fish and Wildlife Service, or NOAA Fisheries?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?
- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- 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?

**Explanation for a, b, and e, – No Impact.** The no impact determinations in this section are based on the project scope, field reviews and information provided in the Natural Environmental Study (NES) prepared October 24, 2019. Reference Chapter 3 for additional information on biological resources. .

**Explanation for c, d, and f – Less than Significant Impact.** The less than significant impact determinations in this section are based on the project scope, field reviews and information provided in the (NES) prepared October 24, 2019. Reference Chapter 3 for additional information on biological resources.

## **Cultural Resources**

### **CEQA Significance Determinations for Cultural Resources**

Would the Project:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to 15064.5?
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?
- c) Disturb any human remains, including that interred outside of dedicated cemeteries?

**Explanation for a, b, and c – No Impact.** The “No Impact” determination to cultural resources is based on the project scope, field reviews and the information provided in the Archaeological Survey Report prepared in September 2019.

A site (Hanley-2) consisting of bedrock mortar features, was identified within the Area of Potential Effects (APE). Hanley-2 will be protected by Environmentally Sensitive Area (ESA) fencing. The ESA's will be established as depicted on the project plans, as defined in the contract Standard Special Provisions (SSPs) 14-1.02.

Reference chapter 3 for additional information on cultural resources.

## Energy

### CEQA Significance Determinations for Energy

Would the project:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

**Explanation for a and b – No Impact.** The “No Impact” determinations are based on the energy Study prepared September 19, 2019. Transportation energy is generally described in terms of direct and indirect energy.

The proposed project does not add roadway capacity and does not include maintenance activities which would result in long-term energy consumption by equipment required to operate and maintain in the roadway. Therefore, the project would not result in inefficient, waste, and unnecessary consumption of energy. The project will not conflict with state or local plans for renewable energy or energy efficiency.

## Geology and Soils

### CEQA Significance Determinations for Geology and Soils

Would the project:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i. rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of now gault? 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?
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in 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 direct or indirect risks to life or property?
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?
- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

**Explanation for a, b, c, d, e, and f - No Impact.** The no impact determinations in this section are based on the project scope and field reviews. No faults, unstable geologic units of soil, or expansive soil was identified within the project limits.

## **Greenhouse Gas Emissions**

### **CEQA Significance Determinations for Greenhouse Gas Emissions**

Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for reducing the emissions of greenhouse gases?

**Explanation for a and b – No Impact.** The no impact determinations in this section are based on the projects scope, field reviews and the information provided in the Greenhouse Gas (GHG) report prepared on September 18, 2019.

**Transportation Conformity** - The proposed project would not result in changes to the traffic volume, fleet mix, speed, location of existing facility or any other factor that would cause an increase in emissions relative to the no build alternative, therefore, this project would not cause an increase in operational emissions.

**Long-term Greenhouse Gas Emissions** – The proposed project was assessed for potential to increase operational GHG emissions. The scope of the project is a non-capacity increasing project and will not add additional lanes which will not result in additional trips or change the speed or alignment of the roadway. Long-term operational GHG emissions are not predicted to increase from the project. Therefore, impacts regarding GHG is not expected and no further analysis is required.

**Short-Term Effects (Construction Emissions)** - During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. 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. Therefore, impacts regarding GHG are not expected and no further analysis is required. Refer to Chapter 3 construction emissions.

## **Hazards and Hazardous Materials**

### ***CEQA Significance Determinations for 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?
- 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 or excessive noise for people residing or working in the project area?
- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

**Explanation for a, b, c, d, e, f, and g – No Impact.** The no impact determination is based on the project scope and Initial Site Assessment (ISA) prepared on July 8, 2019. No hazardous waste/material issues were identified for this project.

## **Hydrology and Water Quality**

### ***CEQA Significance Determinations for Hydrology and Water Quality***

Would the project:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - i. result in substantial erosion or siltation on or off-site?
  - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site?
  - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or
  - iv. impede or redirect flood flows?
- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
- e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

**Explanation for a, b, c, d, and e – No Impact.** The no impact determinations in this section is based on the Water Quality Assessment Report completed on July 5, 2019. The project would not violate any water quality standards, substantially decrease groundwater or interfere with groundwater recharge. In addition, the project would not result in substantial erosion or siltation on or off site. Project site BMPs and 2018 Caltrans Standards specifications will be implemented to avoid or minimize potential impacts.

## Land Use and Planning

### CEQA Significance Determinations for Mineral Resources

Would the project:

- a) Physically divide an established community?
- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigation an environmental effect?

**Explanation for a and b - No Impact.** The no impact determination for land use and planning is based on the project scope, project area, research, and field reviews. The project is located within a rural area. Due to the rural nature of the area and the scope of the project, the project would not divide an established community. The project would not conflict with land use planning, policies, or regulations.

## Mineral Resources

### CEQA Significance Determinations for Mineral Resources

Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- 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?

**Explanation for a and b – No Impact.** The no impact determination to mineral resources is based on the project scope and field review. No mineral resources were identified within the Environmental Study Limit (ESL) that would be affected by the project.

## Noise

### CEQA Significance Determinations for Noise

Would the project result in:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b) Generation of excessive ground borne vibration or ground borne noise levels?
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

**Explanation for a, b, and c – No Impact.** The no impact determination for noise is based on the project scope, field reviews, and information provided in the Noise Analysis completed on September 18, 2019.

During construction noise may be generated from the contractors equipment and vehicles. To minimize noise, the provisions of Standard Specification, Section 14-8.02 “Noise Control” will be implemented.

## Population and Housing

### CEQA Significance Determinations for Population and Housing

Would the project:

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

- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

**Explanation for a and b – No Impact.** The no impact determination for population and housing is based on the description and location of the proposed project. The project would not add new homes, businesses, and it would not extend roads or other infrastructure. The proposed project will not induce population or displace people.

## **Public Services**

### **CEQA Significance Determinations for Public Services**

Would the project:

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

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

**Explanation for a – No Impact.** The no impact determination for public services is based on the project scope and field reviews. The proposed project would not require a need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives.

## **Recreation**

### **CEQA Significance Determinations for Recreation**

Would the project:

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- 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?



**Explanation for a and b – No Impact.** The no impact determination for recreation is based on the description and location of the proposed project. The project would not increase the use of any existing neighborhood, regional parks, or other recreational facilities. Furthermore, there are no neighborhood parks, regional parks adjacent to or nearby the project.

## **Transportation**

### **CEQA Significance Determinations for Transportation**

Would the project:

- a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- c) Substantially increase hazards due to a geometric design feature (e.g, sharp curves or dangerous intersections) or incompatible uses (e.g, farm equipment)?
- d) Result in inadequate emergency access?

**Explanation for a, b, c, and d – No Impact.** The no impact determination for transportation is based on the project scope and field reviews. The proposed project will not conflict with an applicable congestion management program, result in a change in air traffic patterns, substantially increase hazards due to a design feature, or conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. The project will not change emergency access.

## **Tribal Cultural Resources**

### **CEQA Significance Determinations for Tribal Cultural Resources**

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- 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.

**Explanation for a and b - No Impact.** The no impact determination is based on the information provided in the Archaeological Survey Report prepared in September 2019 and the Historic Property Survey Report prepared in October 2019.

The following archaeological sites within the Area of Potential Effects (APE) are considered eligible for inclusion in the National Register of Historic Preservation (NRHP) and/or as California Historical Landmarks (CHLS). The site will be protected in its entirety from any potential effects through the establishment of an Environmentally Sensitive Area (ESA).

**Properties Identified:**

Hanely-2 prehistoric bedrock mortar complex

Initial consultation began on May 6, 2019 by a Caltrans PQS Archaeologist who contacted the Native American Heritage Commission (NAHC) and requested a consultation list of tribes, groups, and individuals who have expressed an interest in the project vicinity. The NAHC responded on June 5, 2019 indicating no sacred sites were identified within the project vicinity. Consultation will continue throughout the life of the project.

## **Utilities and Service Systems**

### **CEQA Significance Determinations for Utilities and Service Systems**

Would the project:

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal dry and multiple dry years?
- c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals?

**Explanation for a, b, c, d, and e – No Impact.** The no impact determination is based on the project scope and field reviews. There are no utility conflicts.

## **Wildfire**

### **CEQA Significance Determinations for Wildfire**

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?
- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as result of runoff, post-fire slope instability, or drainage changes?

**Explanation for a, b, c, and d – No Impact.** The no impact determinations is based on the project scope and field reviews. The proposed project would not exacerbate wild fire risks. In addition, the project would not require installation or maintenance of additional infrastructure that would result in temporary or ongoing impacts to the environment. The project would not expose people or structures to significant risks.

## **Mandatory Findings of Significance**

### **CEQA Significance Determinations for Mandatory Findings of Significance**

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effect 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?

**Explanation a, b and c - No Impact.** The no impact determinations are based on the scope of work. The proposed project would not result in any adverse effects that, when considered in connection with other projects, would be considered cumulatively considerable. Based on the description of the proposed project and consideration of potential effects, the project would not cause substantial adverse effects on human beings, either directly or indirectly.

# **Chapter 3**      Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

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## **BIOLOGICAL ENVIRONMENT**

This section discusses natural communities of concern; the focus is on biological communities, not individual plant or animal species. Information on wildlife corridors and habitat fragmentation is also included. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in the Threatened and Endangered Species section. Also, wetlands and other waters are also discussed.

- As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered but no impacts were identified:
- Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service.
- Project would not substantially interfere 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.
- Project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
- As a result, there is no further discussion about these issues in this document.

### **Affected Environment**

The proposed project is in Placer County on McCourtney Road near the town of Sheridan. This property can be accessed from State Route (SR) 65, postmile (PM) 19.46, near the Wise Road exit. The environmental study limit (ESL) for the proposed project encompasses 17-acres of a 186-acre parcel owned by Caltrans, Coon Creek conservation Ranch. Historically there was an intermittent stream, a tributary to Coon Creek, flowing through this property. A previous property owner diverted this stream by

excavating a ditch in an upland habitat located on the edge of the property. Located on the southeastern edge of the ESL is the point at which the stream was redirected and the altered portion of the unnamed tributary to Coon Creek. This stream was redirected down a straight-line ditch approximately 4 feet in width that runs down the property line until it enters a culvert pipe. This pipe enables the water to make almost a ninety degree turn across the property line where it drains into Coon Creek. The altered downstream portion of the Coon Creek tributary runs a portion of the property line (587 linear feet), makes a 90 degree turn, and then runs across the project area northwest into Coon Creek (710 linear feet). There is no vegetation associated with the portion of the ditch that runs northwest across the property and into Coon Creek.

## **Description of the Existing Biological and Physical Conditions**

### **Study Area**

The Environmental Study Limit (ESL) for this project encompasses the altered portion of the stream, sparse riparian vegetation, and vegetated area consisting of annual grassland species.

### **Physical Conditions**

The project area is approximately 250-300 feet above mean sea level. The project is located between the Marysville and Auburn weather station. Data from the Marysville Weather Station shows that the area has a mean annual precipitation of 20.96 inches with an average minimum January temperature of 37.7 degrees Fahrenheit and an average monthly maximum July temperature of 96.3 degrees Fahrenheit. Rain occurs mostly in the winter months and the average total snowfall is 0.2 inches.

The altered downstream portion of the Coon Creek tributary runs along a portion of the property line, makes a 90 degree turn, and then runs across the project area northwest into Coon Creek. There is no vegetation associated with the portion of the ditch that runs northwest across the property and into Coon Creek.

### **Biological Conditions in the Study Area**

The project lies on the border of the Sacramento Valley Subregion (ScV) of the Great Central Valley Region (GV) and the Northern Sierra Nevada Foothills District (nSNF) of the Sierra Nevada Foothills Subregion (SNF) of the Sierra Nevada region (SN) of the California Floristic Province, as defined by the Jepson manual (Baldwin et al., 2012). Although now predominately agricultural the GV still supports some grasslands, marshes, vernal pools, riparian woodlands, alkali sink vegetation, and stands of valley oak. Boundaries between the northern, central, and southern districts of the Sierra Nevada Foothills Subregion coincide with areas of more or less abrupt floristic transition as well as with major rivers or drainage systems. The subregion is vegetational complex and vegetation types change with latitude in the Sierra Nevada.

There is a sparse riparian zone associated with altered downstream portion of the unnamed tributary to Coon Creek that runs along the southern property line. The riparian zone of the unaltered upstream portion of the tributary is approximately 150 feet in width and the altered portion has riparian habitat that is less than 20 feet in width. Species in this zone include White Alder, Valley Oak, Himalayan Blackberry, Willow, California mugwort, California wild grape, and Broadleaf cattail. The upland portion of the project is dominated by non-native and invasive species included, but not limited to, common wild oats, Ripgut, Yellow star thistle, bull thistle, soft brome, and Foxtail chess. Some vegetation within the pasture, field, and ditch may be disturbed and no tree removal is anticipated.

### **Habitat Connectivity**

The proposed project would result in greater riparian and wetland habitat connectivity. Presently, the riparian vegetation along the altered portion of the stream is sparse, and after the water flows through the culvert and makes the ninety degree turn there is no riparian or wetland habitat, providing no vegetative corridor or habitat connectivity to Coon Creek. The existing sparse riparian would not be removed and no new barriers to wildlife would be created.

### **Regional Species and Habitats and Natural Communities of Concern**

Several listed species have the potential to occur in the general project vicinity. The Environmental Study Limit (ESL) for this project encompasses all areas needed for staging, construction, and restoration. There is minimal potential for listed species to occur within the ESL or to be impacted by the project activities. The discussion is limited to species that have the potential to occur within the ESL or that could be affected by work with the ESL. Table 1 contains a list of sensitive species and habitats that could potentially occur within the project vicinity.

**Table 1: Listed, Proposed Species, Natural communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area.**

Common Name	Scientific Name	Status (Federal/State/ Other)	General Habitat Description	Habitat Present/ Absent	Rationale
<b>Plants</b>					
Ahart's Dwarf Rush	<i>Juncus leiospermus var. ahartii</i>	-/-1B.2	Occurs in wetlands and vernal pools. Found in mesic valley and foothill grasslands, freshwater wetlands, and wetland- riparian..  Elevation: 95-750 feet above sea level	Present	No impact from the project. Suitable habitat is present within the ESL, however species not observed during multiple botanical surveys.
Big-scale Balsamroot	<i>Balsamorhiza macrolepis</i>	-/-1B.2	Found in chaparral, cismontane woodland, and valley and foothill grassland, sometimes in serpentine soil.  Elevation: 145-5100 feet above sea level	Present	No impact from the project. Suitable habitat is present within the ESL, however species not observed during multiple botanical surveys. No serpentine soils.
Boggs Lake hedge-hyssop	<i>Gratiola heterosepala</i>	-/SE/1B.2	Found in wetlands, marshes, swamps, and vernal pools, with clay soil.  Elevation: 30-7790 feet above sea level	Absent	No impact from the project. Soils are not clay in the ESL. Species was not observed during multiple botanical surveys.
Dwarf Downingia	<i>Downingia pusilla</i>	-/-2B.2	Found in mesic valley, foothill grassland, and vernal pools.  Elevation: 0-1460 feet above sea level	Absent	No impact from the project. No suitable habitat is present within the ESL; species not observed during multiple botanical surveys.
Pincushion Navarretia	<i>Navarretia myrsinifolia ssp. myrsinifolia</i>	-/-1B.1	Found in vernal pools, often with acidic soil.	Absent	No impact from the project. There are no vernal pools within the ESL.



			Elevation: 65-1085 feet above sea level		
<b>Birds</b>					
Burrowing Owl	<i>Athene cunicularia</i>	-/SSC	Found in open grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats.	Absent	Would not result in "take." Not likely to occur in the ESL. Species nor burrows were observed during surveys.
California Black Rail	<i>Laterallus jamaicensis coturniculus</i>	-/ST/FP	Nests in high portions of shallow freshwater marshes, wet meadows, or flooded grassy areas vegetated by fine stemmed emergent plants; characterized by water depths of approximately one inch that do not fluctuate seasonally. Locally occupied sites in the Sierra foothills are typically small, densely vegetated, and fed by irrigation water; habitat size varies from less than 0.25 acre to over 30 acres.	Absent	No potential to occur. There are no shallow wetted vegetated areas within the ESL that do not fluctuate seasonally. Would not result in take from the project.
Song sparrow (Modesto population)	<i>Melospiza melodia</i>	-/SSC	Prefers riparian, fresh or emergent wetland, and wet meadow habitats. Breeds in riparian thickets of willows, other shrubs, vines, tall herbs, and in fresh or emergent vegetation.	Absent	Would not result in "take." Riparian and emergent wetland are limited within the ESL and do not provide thickets. No vegetation removal is proposed.
Swainson's Hawk	<i>Buteo swainsoni</i>	-/ST	Typical habitat includes: desert, open grassland, riparian areas, and cropland containing large scattered trees.	Present	Potential foraging habitat for Swainson's hawk occurs in the ESL, however no nests on the property. No effect. No habitat removal proposed. Would not result in "take."

Tricolored Blackbird	<i>Agelaius tricolor</i>	-/ST	For nesting colonially, large, dense stands of freshwater marsh, riparian scrub, and other shrubs and herbs; for foraging, grasslands and agricultural fields. Wintering populations concentrate in the Delta and the central coast in open rangeland; dairies are attractive.	Absent	No effect. Would not result in "take." Dense stands do not exist within the ESL.
<b>Invertebrates</b>					
Conservancy Fairy Shrimp	<i>Branchinecta conservatio</i>	FE/-	Found in vernal pools in the Central Valley.	Absent	No effect. Vernal pools do not exist within the ESL.
Valley Elderberry Longhorn Beetle	<i>Desmocerus californicus dimorphus</i>	FT/-	Found only in association with <i>Sambucus</i> spp. in the Central Valley.	Absent	No effect. <i>Sambucus</i> spp. Does not exist within the ESL.
Vernal Pool Fairy Shrimp	<i>Branchinecta lynchi</i>	FT/-	Found in vernal pools in the Central Valley.	Absent	No effect. Vernal pools are not present within the ESL.
Vernal Pool Tadpole Shrimp	<i>Lepidurus packardii</i>	FE/-	Found in vernal pools in the Central Valley.	Absent	No effect. Vernal pools are not present within the ESL.
<b>Amphibians</b>					
California Red-legged Frog	<i>Rana draytonii</i>	FT/-	Dense, shrubby riparian vegetation ( <i>Salix lasiolepis</i> ; also <i>Typha</i> and <i>Scirpus</i> spp.) associated with deep (2.3 feet), still, or slow-moving water.	Absent	No effect. Dense shrubby riparian associated with deep still or slow-moving water is not present within the ESL.
<b>Fishes</b>					
Delta Smelt	<i>Hypomesus transpacificus</i>	FT/-	Euryhaline species, primarily living in brackish water; spawns in shallow, fresh, or slightly brackish water upstream from the mixing zone.	Absent	No effect. Brackish water does not occur within the ESL.
Steelhead - Central Valley DPS	<i>Oncorhynchus mykiss irideus</i> pop. 11	FT/-	Populations in the Sacramento and San Joaquin rivers and their tributaries.	Absent	No effect. Suitable habitat does not exist within the ESL.
<b>Reptiles</b>					
Giant Garter Snake	<i>Thamnophis gigas</i>	FT/-	Found in marshes, sloughs, canals, irrigation ditches, and slow-moving creeks.	Absent	No effect. Suitable habitat does not exist within the ESL.
<b>Mammals</b>					
Pallid bat	<i>Antrozous pallidus</i>	-/SSC	A wide variety of habitats is occupied including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting.	Absent	Would not result in "take." The ESL does not contain rocky areas for roosting.

The habitats listed are of special concern based on (1) Federal, State, or local laws regulating their development, (2) limited distributions and/or (3) the habitat requirements of special-status plants or animals occurring on site.

## Riparian Vegetation

### Affected Environment

Riparian vegetation exists on the portion of the creek that runs east/west along the southern property line and is sparse, amounting in approximately 0.07 acres and 587 linear feet. Overstory species include White Alder (*Ainus rhombifolia*), Valley Oak (*Quercus lobate*), and Willow (*Salix* spp.). The shrub/vine layer and understory species include, but are not limited to, Himalayan Blackberry (*Rubus armeniacus*), California Wild Grape (*Vitis Californica*), Spike Rush (*Eleocharis* sp.), California Mugwort (*Artemisia douglasiana*), and Broadleaf Cattail (*Typha latifolia*).

### Environmental Consequences

Impacts to riparian vegetation would be minimal. No tree removal is anticipated along the current/alterd channel; thus, effects would only occur from water diversion. The riparian zone is sparse and most of the species along the current channel are well-established oaks. Since well-established oaks exist and flourish outside the riparian zone, it is not anticipated that diverting the water into a new more natural channel would impact these species. Willow species and the understory could be impacted from the diversion of water, however all impacts to riparian vegetation would be self-mitigated through the proposed restoration project.

### Avoidance and Minimization Measures

- Routes and boundaries of roadwork would be clearly marked before initiation of restoration or grading.
- Before construction activities begin, the contractor, in consultation with a qualified biologist and in accordance with the project plans, will clearly demarcate environmentally sensitive areas, if any, adjacent to the project footprint. Temporary fencing would be installed along the perimeter of all environmentally sensitive areas that are to be avoided, would remain in place throughout the duration of construction and would be fully maintained and inspected daily when project activities are underway. Repairs to the fencing would be made within 24 hours of identifying the need for repair. After construction is completed, the fencing would be completely removed.

### Mitigation Measures

Any impacts to riparian vegetation would be mitigated through the creation of riparian habitat in the proposed restoration project.

### Benefits/Enhancements

This mitigation project seeks to restore the riparian corridor to similar conditions as what is currently upstream in the unaltered portion of the tributary. The proposed project would create a more natural meandering stream with a robust riparian zone similar to the historical intermittent stream prior to alteration by a previous owner.

## **Wetlands and Other Waters**

### **Regulatory Setting**

#### **Federal**

Waters of the United States (including wetlands) are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344) is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army of Engineers (USACE) with oversight by the United States Environmental Protection Agency (U.S. EPA).

USACE issues two types of 404 permits: Standard and General permits. There are two types of General permits, Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. There are two types of Standard permits. Individual permits and Letters of Permission.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal Regulations [CFR] Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (Waters of the United States) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally

damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this EO states that a federal agency, such as the Federal Highway Administration (FHWA) and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

## **State**

At the state level, wetlands and waters are regulated primarily by CDFW, the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs).

Sections 1600–1607 of the California Fish and Game Code (CFGC) require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement (LSAA) will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications for impacts to wetlands and waters in compliance with Section 401 of the CWA. Please see the Hydrology and Water Quality section for additional details.

## **Affected Environment**

Waters of the U.S. in the form of the intermittent stream is present within the ESL. The project could potentially impact 0.26 acres of Waters of the U.S. if proposing to fill the current altered channel or divert water completely out of the current channel. More than likely, some of the downstream portion of the current channel that intersects the property would be utilized resulting in less impacts. All impacts to Waters of the U.S. would be self-mitigated through the proposed restoration project.

In the past two years, the rock dam that was located at the point where the original stream was diverted down the property line has broken down. For the 1-2 years, water has begun to flow towards its historical watercourse on the project site. It has begun the process but has not yet channelized, however, hydrophytic vegetation has begun to establish in and around this historical watercourse concentrating in topographic

depressions. These areas display characteristics of a wetland, though when the wetland delineation was conducted the soil in these areas did not meet any hydric soil field indicators.

## **Environmental Consequences**

The project could potentially impact 0.26 acres of Waters of the U.S. if the scope of work is to fill the current altered channel or divert water completely out of the current channel. There's a possibility a portion of the channel that intersects the property would be utilized resulting in less impacts.

The potential wetlands could be impacted by dredging of the channel through these areas, although it's possible that if left untouched the stream channel would establish through these potential/future wetlands. Another possibility could result in the flow spreading out in such a way that it is seasonally wet but not enough to establish three parameter wetlands and/or riparian habitat. Further analysis would be conducted in Spring of 2020 to investigate the impact to potential wetlands.

## **Avoidance and Minimization Measures**

**Best Management Practices.** In compliance with the requirements of the Central Valley Regional Water Quality Control Board, a Storm water Pollution Prevention Plan (SWPPP) and erosion control BMPS will be developed and implemented to minimize any wind or water related material discharges. The SWPPP will provide guidance for measures to protect environmentally sensitive areas, and to prevent and minimize stormwater and non-stormwater discharges. Protective measures will include the following at minimum:

- Discharge of pollutants into storm drains or water courses from vehicle and equipment cleaning will be prohibited.
- Maintenance and refueling areas for equipment will be located a minimum of 50 feet from active streams channels in predesignated staging areas, except at an established commercial gas station or vehicle maintenance facility.
- Spill containment kits will always be maintained onsite during construction operations and/or staging or fueling of equipment.
- Dust control measures will include the use of water trucks and dust palliatives to control dust in excavation-and-fill areas, and to cover temporary stockpiles when weather conditions warrant such action.
- Coir rolls or straw wattles that do not contain plastic or synthetic mono filament netting will be installed along or at the base of the slopes during construction, to capture sediment.

## **Mitigation Measures**

Impacts to Waters of the U.S and associated riparian habitat will be mitigated through the proposed restoration project.

## **Benefits/Enhancements**

The proposed project would create a more natural meandering stream with a robust riparian zone similar to the historical intermittent stream prior to alteration by a previous owner.

With implementation of the proposed stream restoration and grading to create defined wetland areas, these potential wetlands would be enhanced at a more rapid rate than if left untouched.

## **Plant Species Regulatory Setting**

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section in this document for detailed information regarding these species. This section of the document discusses all the other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900–1913, and the California Environmental Quality Act (CEQA), CA Public Resources Code, Sections 2100–21177.

## **Affected Environment**

Five special-status plant species have the potential to occur within the environmental study limit (ESL). Suitable habitat is present within the ESL; however, species were not observed during multiple botanical surveys. See table below.

The ESL encompasses all areas needed for staging, construction and restoration, however there is minimal potential for listed species to occur within the ESL or to be impacted by the project activities.

Common Name	Scientific Name	Status (Federal/State/ Other)	General Habitat Description	Habitat Present/ Absent	Rationale
<b>Plants</b>					
Ahart's Dwarf Rush	<i>Juncus leiospermus</i> var. <i>ahartii</i>	-/-1B.2	Occurs in wetlands and vernal pools. Found in mesic valley and foothill grasslands, freshwater wetlands, and wetland-riparian..  Elevation: 95-750 feet above sea level	Present	No impact from the project. Suitable habitat is present within the ESL, however species not observed during multiple botanical surveys.
Big-scale Balsamroot	<i>Balsamorhiza macrolepis</i>	-/-1B.2	Found in chaparral, cismontane woodland, and valley and foothill grassland, sometimes in serpentinite soil.  Elevation: 145-5100 feet above sea level	Present	No impact from the project. Suitable habitat is present within the ESL, however species not observed during multiple botanical surveys. No serpentinite soils.
Boggs Lake hedge-hyssop	<i>Gratiola heterosepala</i>	-/SE/1B.2	Found in wetlands, marshes, swamps, and vernal pools, with clay soil.  Elevation: 30-7790 feet above sea level	Absent	No impact from the project. Soils are not clay in the ESL. Species was not observed during multiple botanical surveys.
Dwarf Downingia	<i>Downingia pusilla</i>	-/-2B.2	Found in mesic valley, foothill grassland, and vernal pools.  Elevation: 0-1460 feet above sea level	Absent	No impact from the project. No suitable habitat is present within the ESL; species not observed during multiple botanical surveys.
Pincushion Navarretia	<i>Navarretia myersii</i> ssp. <i>myersii</i>	-/-1B.1	Found in vernal pools, often with acidic soil.	Absent	No impact from the project. There are no vernal pools within the ESL.

## Environmental Consequences

No special-status plant species were observed within the project limits, therefore, no impact to special-status plant species is anticipated.



## **Avoidance and Minimization Measures**

No avoidance and minimization measures for special status plants is necessary as they will not be affected by the project.

## **Mitigation Measures**

No mitigation measures are proposed.

## **Animal Species Regulatory Setting**

Many state and federal laws regulate impacts on wildlife. The USFWS, National Oceanic and Atmospheric Administration (NOAA) Fisheries (also known as NMFS) and CDFW are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Acts. Species listed or proposed for listing as threatened or endangered are discussed in the following section. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NMFS candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1600–1603 of the California Fish and Game Code
- Section 4150 and 4152 of the California Fish and Game Code

## **Migratory Birds**

## **Affected Environment**

All migratory birds, including feathers or other parts, nests, eggs, or products are protected under the Migratory Bird Treaty Act of 1918 (16 USC 703-712). The Migratory Bird Treaty Act makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment or loss of nest productivity (e.g., killing or abandonment of eggs or young) may be considered a “take” and is potentially punishable by fines and imprisonment.

A nesting bird survey was conducted on June 15, 2019 to determine if birds were nesting within the project limits. No nesting birds were observed during these surveys.

## **Environmental Consequences**

Currently, no vegetation removal is proposed, however, if vegetation removal is required between February 1 and September 30, a qualified biologist will conduct preconstruction surveys for nesting birds no more than 2 weeks before the start of construction. If nesting birds are found, a buffer will be established around the nest, at the discretion of the qualified biologist. After buffer areas are established, the area within the buffer will be avoided.

## **Avoidance and Minimization Measure**

Preconstruction Surveys for Nesting Birds. Currently, no vegetation removal is proposed, however, if vegetation removal is required between February 1 and September 20, a qualified biologist will conduct preconstruction surveys for nesting birds no more than 2 weeks before the start of construction. If nesting birds are found, a buffer will be established around the nest, at the discretion of the qualified biologist. After buffer areas are established, the area within the buffer will be avoided.

## **Mitigation Measures**

No mitigation is proposed.

## Threatened and Endangered Species

The primary federal law protecting threatened and endangered species is FESA: 16 United States Code (USC) Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies such as FHWA are required to consult with the USFWS and NMFS to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a no effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the CESA, CFGC Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. CDFW is the agency responsible for implementing CESA. Section 2081 of the CFGC prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species.

## Swainson's Hawk

Swainson's Hawk is a State-listed threatened species. The Central Valley population of Swainson's Hawk typically is present in the Northern Sacramento Valley only during the breeding season (march through September). Swainson's Hawk begin to arrive in the Central Valley in March. Nesting territories are usually established by April, followed by incubation and rearing of young through June. In the fall, they migrate far south has Swainson's Hawk most commonly occur in grasslands, low shrublands, and agricultural habitats that include large trees for nesting. Nests are found in riparian woodlands, roadside trees, trees along field borders, and isolated trees. Open fields and pastures are primary foraging areas; important foraging habitat includes annual grasslands, pastures, alfalfa and other hay crops, and combinations of hay, grain, and row crops up to as far as 18 miles from nest sites (CDFG 1994).

According to the California Natural Diversity Database, the nearest occurrence of Swainson's hawk is approximately 2.5 miles southwest of the project site. A nesting bird survey was conducted on June 15, 2019 to determine if birds were nesting within the project limits. These surveys also focused on the presence of Swainson's Hawk nests. No individual Swainson's hawk or nests have been observed during any of the 2019 surveys, however, the Coon Creek Conservation Ranch provides adequate foraging and some nesting habitat for the species. The open field/pasture and large trees on the property offers these habitats, respectively. Within the ESL, there are two large trees and some sparse riparian habitat that could provide nesting habitat. There are also many large trees outside the ESL along Coon Creek, upstream of the altered portion of the tributary, and northwest up the hillside that could provide nesting habitat for this species. Bird species are not anticipated to nest within the project limits due to the sparse riparian habitat and small number of large trees within the ESL that could provide nesting habitat.

## **Environmental Consequences**

The proposed project could temporarily disrupt foraging opportunities while under construction, however, observations on construction sites suggest that Swainson's Hawk are attracted to ground disturbance as it provides a predation opportunity. The proposed restoration project, when complete, would enhance the suitable nesting habitat, providing a more robust riparian zone, therefore there is no impact to the species.

Avoidance and Minimization Measure. Preconstruction surveys for nesting birds and raptors would be conducted by a qualified biologist according to the Swainson's Hawk Technical Advisory Committee's (TAC) Recommended Timing and Methodology for Swainson's hawk Nesting Surveys in California's Central Valley (1994) no more than 2 weeks before the start of construction. If nesting Swainson's Hawk are found within 0.25 Miles of the project site, coordination with CDFW would be required and construction activities could be delayed until young are fledged.

## **Mitigation Measures**

No mitigation measures are proposed.

## **Benefits/Enhancements**

The proposed restoration project, when complete, would enhance the suitable nesting habitat, providing a more robust riparian corridor for Swainson's Hawk.

## **Cultural Resources**

### **Regulatory Setting**

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as CA Public Resources code (PRC) Section 5024.1, which

established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet the National Register of Historic Places listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024 (f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

## **Environmental Setting**

An Historic Property Survey Report (HPSR) was completed October 2019 due to the potential for cultural resources within the project area. An Area of Potential Effects (APE) for the project was established in consultation with Caltrans Staff on September 23, 2019. The APE was established to encompass the maximum limits of all potential ground disturbing construction activities associated with the proposed scope of work.

A record search request was sent to the North Central Information Center (NCIC) on September 25, 2019, on September 26, 2019 a NCIC employee conducted a record search for cultural site records, previously conducted cultural resources investigations, and information concerning previously recorded cultural resources pertaining to the proposed project area. The record search requested was to identify all cultural resources and reports within the study area including a quarter mile radius. As a result of the record search, no previous cultural resource studies or sites were identified within the project boundaries. Two previous cultural resource studies or sites were identified outside of the project boundaries within the quarter mile study area and none within the APE.

An archaeological identification of the project's APE was conducted between July and September 2019. The identification effort consisted of a literature and records review, consultation with the Native American community, as well as local historic preservation organizations. A fielded survey by a professionally qualified archaeologist and an architectural historian was also conducted. The survey did not result in the identification of any new cultural resources within the project's APE.

The following archaeological sites within the APE are considered eligible for inclusion in the NRHP and/or as CHLs for the purposes of this project only because they will be protected in their entirety from any potential effects through the establishment of an Environmentally Sensitive Area (ESA), in accordance with Section 106 PA Stipulation VIII.C.3 and as applicable PRC 5024 MOU Stipulation VIII.C.3.

- Hanley-2: prehistoric bedrock mortar complex

Hanley 2 will be protected by Environmentally Sensitive Area fencing. The ESA will be established as depicted on the project plans, as defined in the contract Standard Special Provision (SSPS) 14-1.02.

## **Environmental Consequences**

Caltrans has determined that this proposed project would have no adverse effect with standard conditions to state-owned archaeological sites, landscapes, and no-structural resources within the APE that meet the National Register and/or California Historical Landmarks Register eligibility criteria.

## **Avoidance and Minimization Efforts**

No avoidance, minimization, or mitigation measures beyond the Caltrans standard measure to stop work described below are necessary.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code (J&SC) 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. If the remains are thought by the coroner to be Native American, the coroner will notify the NAHC, who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Caltrans District 3 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.

## **Climate Change**

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 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), and various hydrofluorocarbons (HFCs). CO<sub>2</sub> is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO<sub>2</sub>.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or "mitigate"

the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

## **REGULATORY SETTING**

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

### **Federal**

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 Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices.<sup>1</sup> This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability.”<sup>2</sup> Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program based on each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian

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<sup>1</sup> <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

<sup>2</sup> <https://www.sustainablehighways.dot.gov/overview.aspx>

Energy Policy and Programs within the Department of 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.

The U.S. EPA<sup>3</sup> in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. The current standards require vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. EPA and NHTSA are currently considering appropriate mileage and GHG emissions standards for 2022–2025 light-duty vehicles for future rulemaking.

NHTSA and EPA issued a Final Rule for “Phase 2” for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO<sub>2</sub> emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

## State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (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 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

AB 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)).

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<sup>3</sup> 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 GHGs 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.



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.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 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 GHG reduction goals.

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for 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 how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the 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.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG 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 (MMTCO<sub>2</sub>e).<sup>4</sup> Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands ... is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies,

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<sup>4</sup> GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO<sub>2</sub> is the most important GHG, so amounts of other gases are expressed relative to CO<sub>2</sub>, using a metric called "carbon dioxide equivalent" (CO<sub>2</sub>e). The global warming potential of CO<sub>2</sub> is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO<sub>2</sub>.

departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands.”

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

## **ENVIRONMENTAL SETTING**

The project site is located on the eastern edge of Sacramento Valley in the beginning of the Sierra Nevada foothills and 5.6 miles east of Sheridan at an elevation of approximately 183 meters above sea level.

The area is characterized by warm, dry summers and cold, wet winters. Temperatures range from 38 degrees in winter to 91 degrees in summer. Precipitation within the project area is largely homogenous, averaging between 37 inches annually (U.S. Climate Data 2018),

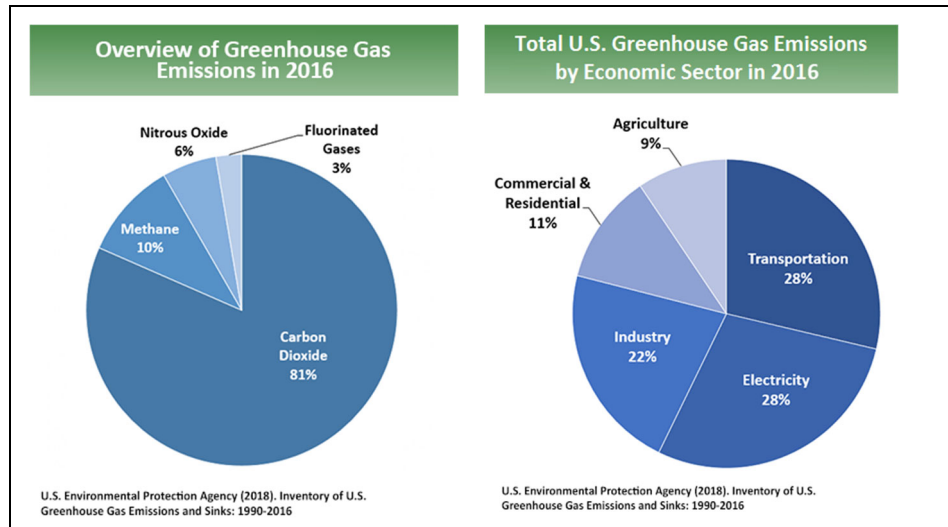
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4.

### **National GHG Inventory**

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, perfluorocarbons, SF<sub>6</sub>, and nitrogen trifluoride. It also accounts for emissions of CO<sub>2</sub> that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store CO<sub>2</sub> (carbon sequestration). The 1990–2016 inventory found that of 6,511 MMTCO<sub>2</sub>e GHG emissions in 2016, 81% consist of CO<sub>2</sub>, 10% are CH<sub>4</sub>, and 6% are N<sub>2</sub>O; the balance consists of fluorinated gases (EPA 2018a).<sup>5</sup> In 2016, GHG emissions from the transportation sector accounted for nearly 28.5% of U.S. GHG emissions.

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<sup>5</sup> U.S. Environmental Protection Agency. 2018. Inventory of U.S. Greenhouse Gas Emissions and Sinks. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>



## Regional Plans

ARB sets regional targets for California's 18 MPOs to use in their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels.

California is open to a wide range of climate change effects. Examples include: increase in temperatures, early snowpack melt, changed precipitation patterns, increased severity of wildfires, and extreme weather events.

The 2035 Placer County Regional Transportation Plan (RTP) Update, developed in 2010, includes goals on climate change and the environment. The RTP offers a comprehensive transportation strategy that intends to reduce GHG and the impact of global warming and climate change on the transportation system. In May 2008 the California Transportation Commission (CTC) added an Addendum to the 2007 Regional Transportation Plan Guidelines requiring that RTPs address the issue of Climate Change and Greenhouse Gas emissions. It is RTPs goal to ensure that transportation

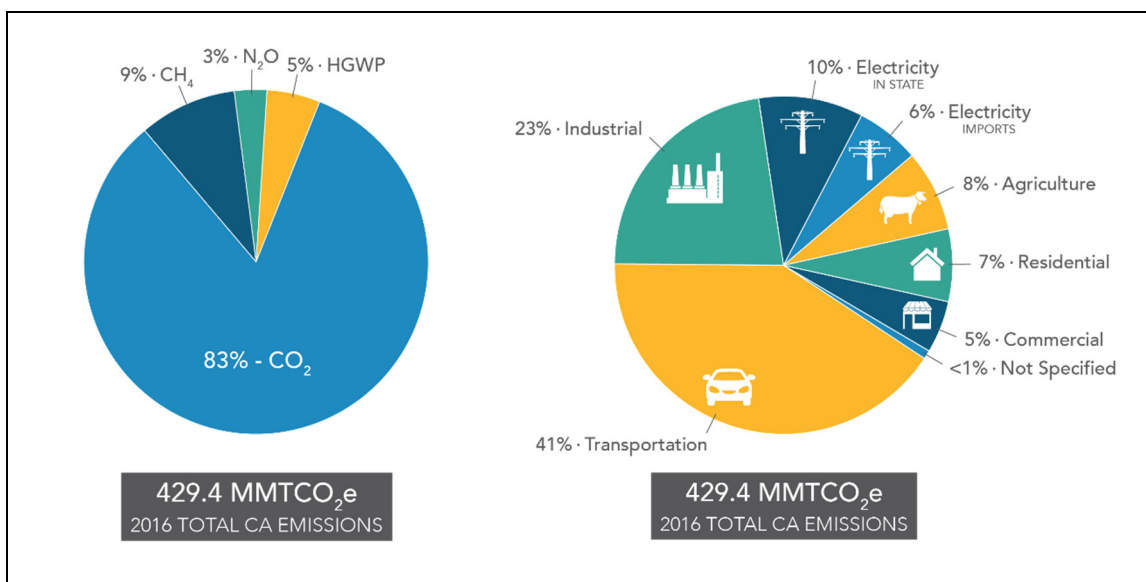
project do not contribute to increased vehicle emissions by implementing the following policies:

- Prioritize and recommend transportation projects that minimize vehicle emissions while providing cost effective movement of people and goods.
- Continue to promote projects that can be demonstrated to reduce air pollution and greenhouse gases, maintain clean air and better public health, through programs and strategies, to green the transportation system.
- Work with the Placer County Air Pollution Control District in developing plans that meet the standards of the California Clean Air Act and the Federal Clean Air Act Amendments, and lead to reduced greenhouse gas emissions.
- Solicit the input of the Placer County Air Pollution Control District on all transportation plans, programs and projects.

### State GHG Inventory

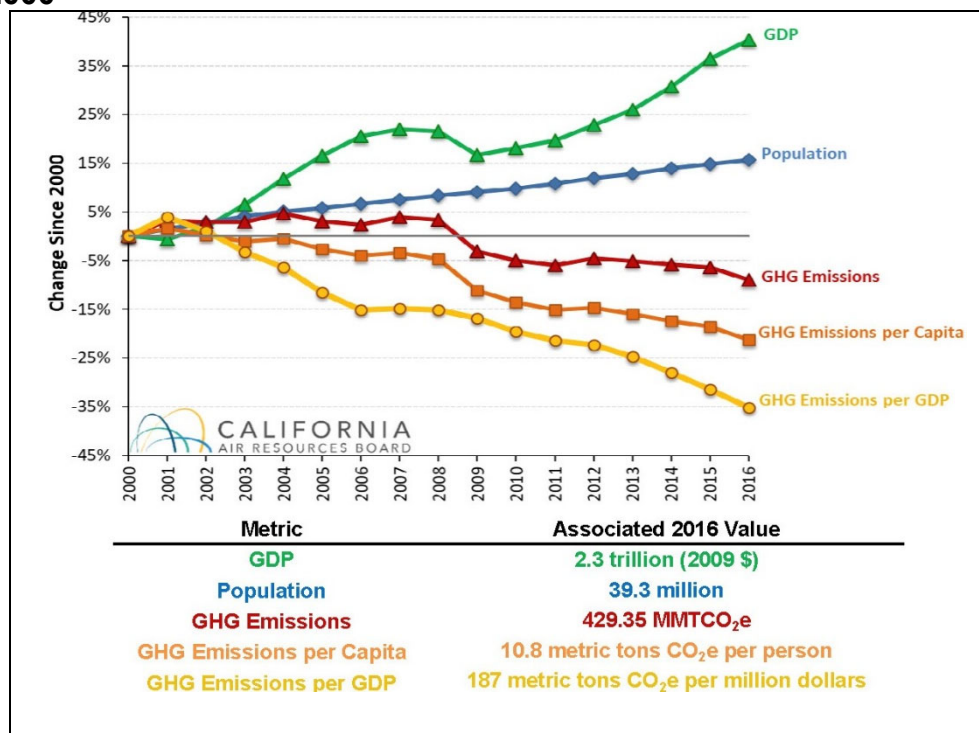
ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. The 2018 edition of the GHG emissions inventory found total California emissions of 429 MMTCO<sub>2</sub>e for 2016, with the transportation sector responsible for 41% of total GHGs. It also found that GHG emissions have declined from 2000 to 2016 despite growth in population and state economic output.<sup>6</sup>

**FIGURE 4. CALIFORNIA 2016 GREENHOUSE GAS EMISSIONS**



<sup>6</sup> 2018 Edition of the GHG Emission Inventory (July 2018).  
<https://www.arb.ca.gov/cc/inventory/data/data.htm>

**FIGURE 5. CHANGE IN CALIFORNIA GDP, POPULATION, AND GHG EMISSIONS SINCE 2000**



AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, *California's 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

## PROJECT ANALYSIS

GHG emissions from transportation projects can be divided into those produced during operation of the SHS and those produced during construction. The primary GHGs produced by the transportation sector are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. CO<sub>2</sub> emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH<sub>4</sub> and N<sub>2</sub>O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, “because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself.” (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3

Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130)).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

### Construction Emissions

Construction GHG emissions would result from material processing, on-site construction equipment, and 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 offset to some degree by longer intervals between maintenance and rehabilitation activities.

The Caltrans Construction Emission Tool (CAL-CET2018 version 1.2) was used to estimate average carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), Hydrofluorocarbons (HFCs) emission from construction activities. Table 1 summarizes estimates of GHG emissions during construction period for the project.

**Table 1. Maximum Greenhouse Gas Emissions from Construction**

Construction Year 2022	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFC
Total: Tons (metric)	46	<1	<1	<1

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

## CEQA Conclusion

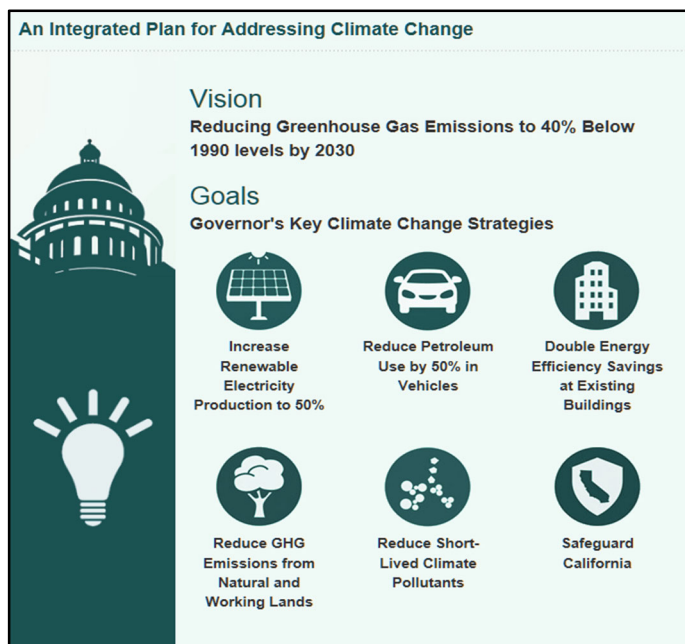
While the project will result in a slight increase in GHG emissions during construction, These construction emissions impacts will be temporary and considered less than significant. It is anticipated that the project will not result in any increase in operational GHG emissions. While it is Caltrans determination 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 impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

## GREENHOUSE GAS REDUCTION STRATEGIES

### Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

**FIGURE 6 CALIFORNIA CLIMATE STRATEGY**





The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing greenhouse gas emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030.

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

### **Caltrans Activities**

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

### ***CALIFORNIA TRANSPORTATION PLAN (CTP 2040)***

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO<sub>2</sub> reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

### ***CALTRANS STRATEGIC MANAGEMENT PLAN***

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:



- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions

#### ***FUNDING AND TECHNICAL ASSISTANCE PROGRAMS***

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., *Safeguarding California*).

#### ***CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES***

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 Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

#### **Project-Level GHG Reduction Strategies**

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

#### **Adaptation**

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must 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 their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

## Federal Efforts

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program (USGRCP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C. ch. 56A § 2921 et seq). The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.” Chapter 12, “Transportation,” presents a key discussion of vulnerability assessments. It notes that “asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime.”

U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions.”<sup>7</sup>

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*, December 15, 2014)<sup>8</sup> established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems.

FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels.<sup>9</sup>

## State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system.

*California’s Fourth Climate Change Assessment* (2018) is the state’s latest effort to “translate the state of climate science into useful information for action” in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

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<sup>7</sup> [https://www.fhwa.dot.gov/environment/sustainability/resilience/policy\\_and\\_guidance/usdot.cfm](https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm)

<sup>8</sup> <https://www.fhwa.dot.gov/legisregs/directives/orders/5520.cfm>

<sup>9</sup> <https://www.fhwa.dot.gov/environment/sustainability/resilience/>

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the “combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.”
- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- Resilience is the “capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience”. Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.
- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.
- *Vulnerability* is the “susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.” Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality.<sup>2</sup> Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate “sea-level rise (SLR) projections into planning and decision making for projects in California” in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential

impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.<sup>10</sup>

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California's infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

## **Caltrans Adaptation Efforts**

### ***CALTRANS VULNERABILITY ASSESSMENTS***

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of

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<sup>10</sup> <http://www.opc.ca.gov/updating-californias-sea-level-rise-guidance/>

storm damage and to provide and maintain transportation that meets the needs of all Californians.

### **Sea-Level Rise**

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

## Chapter 4      References

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## **Chapter 5**      List of Preparers

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To assist in the identification and assessment of potential environmental impacts of the proposed project, Caltrans Environmental staff prepared the following technical reports:

Tracy Robinson – Environmental Planner. Contribution: Environmental Planner and Document Writer

Mike Bartlett – Senior Environmental Planner. Contribution: Document Reviewer

Marta Martinez-Topete – Associate Environmental Planner. Contribution: Document Reviewer

Sarah Jane Gerstman – Associate Environmental Planner (Natural Sciences). Contribution: Natural Environmental Study

Jason McOmber – Hydraulics Engineer. Contribution: Project Report Preparer

Alice Brown – Landscape Architect. Contribution: Visual Impact Assessment

Lisa Bright – Associate Environmental Planner. Contribution: Cultural Resources Screening Memo

Mark Melani – Hazardous Waste Engineer. Contribution: Hazardous Waste Report

Saeid Zandian – Air and Noise Specialist. Contribution: Air Quality Report and Noise Assessment

Jarod Barkley – Water Specialist – Water Quality Assessment



## **Chapter 6**      Title VI Policy Statement

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The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.”