YUBA PASS BRIDGE REPLACEMENT PROJECT

Placer and Nevada County, California
03-PLA/NEV-80-PM 58.52/58.64 & 58.71/60.12
EA 03-3H560 | EFIS 0318000014

INITIAL STUDY

WITH PROPOSED MITIGATED NEGATIVE DECLARATION

Prepared by the
State of California, Department of Transportation
Caltrans District 3
703 B Street
Marysville, CA 95901

CALIFORNIA DEPARTMENT OF TRANSPORTATION

September 2021

General Information About this Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study with proposed Mitigated Negative Declaration (IS/MND) which examines the potential environmental effects of a proposed project on State Route 80 in Placer and Nevada County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This 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 proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this document.
- Additional copies of this document are available for review at the Caltrans District Office located at 703 B Street, Marysville, CA 95901; the Truckee Branch Library located at 10031 Levon Avenue, Truckee, CA 96161; and the Colfax Public Library located at 10 Church Street, Colfax, CA 95713. This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-environmental/d3-environmental-docs.
- 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.
- Please send comments via U.S. mail to:

  California Department of Transportation
  Attention: Bria Miller
  North Region Environmental - District 3
  703 B Street
  Marysville, CA 95901

- Send comments via e-mail to: Bria.Miller@dot.ca.gov
- Be sure to send comments by the deadline: February 1, 2022

What happens after this?

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 complete the design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, in large print, and or in digital format. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Deanna Shoopman, 703 B Street, Marysville, CA 95901; (530) 632-0080 Voice, or use the California Relay Service TTY number, 711 or 1-800-735-2929.

YUBA PASS BRIDGE REPLACEMENT PROJECT

Replace and widen the Yuba Pass Separation Overhead Bridges
along State Route 80 in Placer and Nevada County

US/State Route 80 in Placer and Nevada Counties
Post Miles 58.52/58.64 & 58.71/60.12

INITIAL STUDY

WITH PROPOSED MITIGATED NEGATIVE DECLARATION

Submitted Pursuant to: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

12/15/21
Date of Approval

Mike Bartlett
Mike Bartlett, Office Chief
North Region Environmental - District 3
California Department of Transportation
CEQA Lead Agency

The following person may be contacted for more information about this document:

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(530) 720-3691 or use the California Relay Service TTY number, 711 or 1-800-735-292.

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, California Public Resources Code

SCH Number: Pending

Project Description

The California Department of Transportation (Caltrans) proposes to replace and widen the Yuba Pass Separation Overhead (SOH) Bridges along I-80 in Nevada and Placer County. The proposed project would improve freight efficiency along I-80 by increasing the load carrying capacity and address the structural deficiencies that necessitate the replacement of the structures, such as concrete cracking and spalling, high corrosive chloride content, superstructure repainting, work deck overlay, and bearing pad failure.

Determination

This proposed Mitigated Negative Declaration (MND) is intended to give notice to interested agencies and the public that it is Caltrans' intent to adopt an MND for this project. This does not mean that Caltrans' decision regarding the project is final. This MND is subject to change based on comments received by interested agencies and the public.

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 impact on the environment for the following reasons:

The project would have *No Effect* on agriculture and forestry, air quality, cultural resources, energy, geology and soils, hazardous materials, land use planning, mineral resources, noise, population housing, public service, recreation, transportation and traffic, tribal cultural resources, utilities, and wildfire.

The project would have *Less than Significant Impacts* to aesthetics, hydrology and water quality, greenhouse gas emissions, public service, biological resources, and mandatory findings of significance.

Mike Bartlett

Mike Bartlett, Office Chief
North Region Environmental - District 3
California Department of Transportation

12/15/21

Date

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LIST OF ABBREVIATED TERMS

Abbreviation	Description
AB	Assembly Bill
ARB	Air Resources Board
BMPs	Best Management Practices
BO	Biological Opinion
BSA	Biological Study Area
ºC	degrees Celsius
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CALFIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH_4	methane
CIA	Cumulative Impact Analysis
CNPS	California Native Plant Society
CO_2	carbon dioxide
CRPR	California Rare Plant Rank
CSP	Corrugated Steel Pipe
CTP	California Transportation Plan
CWA	Clean Water Act
Department	Caltrans
DI	drainage inlet
DOT	Department of Transportation
DPS	Distinct Population Segment
EFH	Essential Fish Habitat

Abbreviation	Description
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESA(s)	Environmentally Sensitive Area(s)
ESHA	Environmentally Sensitive Habitat Area
ESL	Environmental Study Limits
ºF	degrees Fahrenheit
FED	Final Environmental Document
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FMP	Fishery Management Plan
GHG	greenhouse gas
GWP	Global Warming Potential
H&SC	Health & Safety Code
HFCs	hydrofluorocarbons
HU	Hydrologic Unit
HVF	High-Visibility Fencing
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
LCFS	low carbon fuel standard
MAMU	Marbled murrelet
MBTA	Migratory Bird Treaty Act
MGS	Midwest Guardrail System
MMTC0_2e	million metric tons of carbon dioxide equivalent
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
MSA	Magnuson-Stevens Fishery Conservation and Management Act
N_2O	nitrous oxide
NAHC	Native American Heritage Commission

Abbreviation	Description
NC	North Coast
NCRWQCB	North Coast Regional Water Quality Control Board
NCSC	Natural Communities of Special Concern
ND	Negative Declaration
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRLF	Northern red-legged frog
NSO	Northern spotted owl
O_3	ozone
Pb	lead
PDT	Project Development Team
PM(s)	post mile(s)
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
PRC	Public Resources Code
RMS	root mean square
RSP	Rock Slope Protection
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board
S	State: ranking for Natural Communities of Special Concern
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SEL	Sound Exposure Level
SHPO	State Historic Preservation Officer
SHS	State Highway System
SLR	Sea Level Rise

Abbreviation	Description
SNC	Sensitive Natural Community
SO_2	sulfur dioxide
SR	State Route
SRZ	Structural Root Zone
SSC	Species of Special Concern
SWMP	Storm Water Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDLs	Total Maximum Daily Loads
TMP	Transportation Management Plan
U.S. or US	United States
U.S. 101	U.S. (United States) Highway 101
USACE	United States Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
U.S. EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGCRP	U.S. Global Change Research Program
VIA	Visual Impact Assessment
VMT	Vehicle Miles Traveled
WDRs	Waste Discharge Requirements
WQAR	Water Quality Assessment Report
WQOs	Water Quality Objectives

Chapter 1 Proposed Project

1.1 Project History

The Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA). This project is located on Interstate 80 (I-80) in Nevada and Placer County. The route within the project limits is a four-lane divided freeway that intersects with State Route (SR) 20. The I-80 serves as an interregional route between the Bay, Sacramento, the Sierras, and Nevada. It is also a vital route for recreational travel, providing access to the Tahoe National Forrest, Donner Pass, Donner Lake, Northern Tahoe, and Western Nevada. The I-80 plays an important role in the winter months by providing access to the ski resorts near Donner Pass and Northern Tahoe. Caltrans snow removal operations are vital in keeping I-80 open during extreme winter conditions.

1.2 Project Description

The proposed project would replace and widen the Yuba Pass Separation Overhead (SOH) Bridges along I-80 in Nevada and Placer County. The proposed project would improve freight efficiency along I-80 by increasing the load carrying capacity and address the following structural deficiencies that necessitate the replacement of the structures, such as concrete cracking and spalling, high corrosive chloride content, superstructure repainting, work deck overlay, and bearing pad failure. The Bridges are located in Nevada County 0.6 miles east of Lake Valley Road Overcrossing Bridge and 4.6 miles west of Cisco Overcrossing Bridge. Both bridges cross over an existing Union Pacific Railroad (UPR). Any new structures with columns placed in railroad right of way would need to meet a 25-foot horizontal clearance to accommodate the existing UPR tracks and 2 future tracks if the UPR chooses to add in the future.

1.1.1 Purpose and Need

Purpose

The purpose of this project is to improve the safety and reliability of the interstate transportation system, upgrade freight carrying capacity, improve the drainage and the network of the transportation management system. The new bridge deck, larger radius horizontal curve, and extended acceleration lane should reduce the number of collisions at this location,

Need

In accordance with Structures Maintenance and Investigations (SMI), the existing bridges have a poor health rating and do not meet load carrying capacity for freight movement of extra-legal trucks. The bridges have severe transverse and longitudinal cracks in the concrete decks. Also, spalling concrete and high corrosive chloride content is present in the concrete deck surfaces, bridge superstructures, and substructures. The salt used during the winter months contributed to the deterioration and maintenance issues that these bridges are experiencing. Numerous Corrugated Metal Pipe (CMP) culverts within the project area are severely deteriorated and require repair or replacement. This segment of I-80 does not currently have Transportation Management System (TMS). This project follows the Caltrans policy need to improve safety and reduce traffic collisions on the roadway.

1.1.2 Project Location

The proposed project is located off I-80 in Nevada and Placer Counties in mountainous rural terrain. The bridges are located in Nevada County at postmile (PM) 59.4 about 0.6 miles east of Lake Valley Road Overcrossing Bridge and about 4.6 miles west of Cisco Overcrossing Bridge. The UPR tracks run parallel to state route 20 and I-80 and cross under the Yuba Pass SOH Bridges.

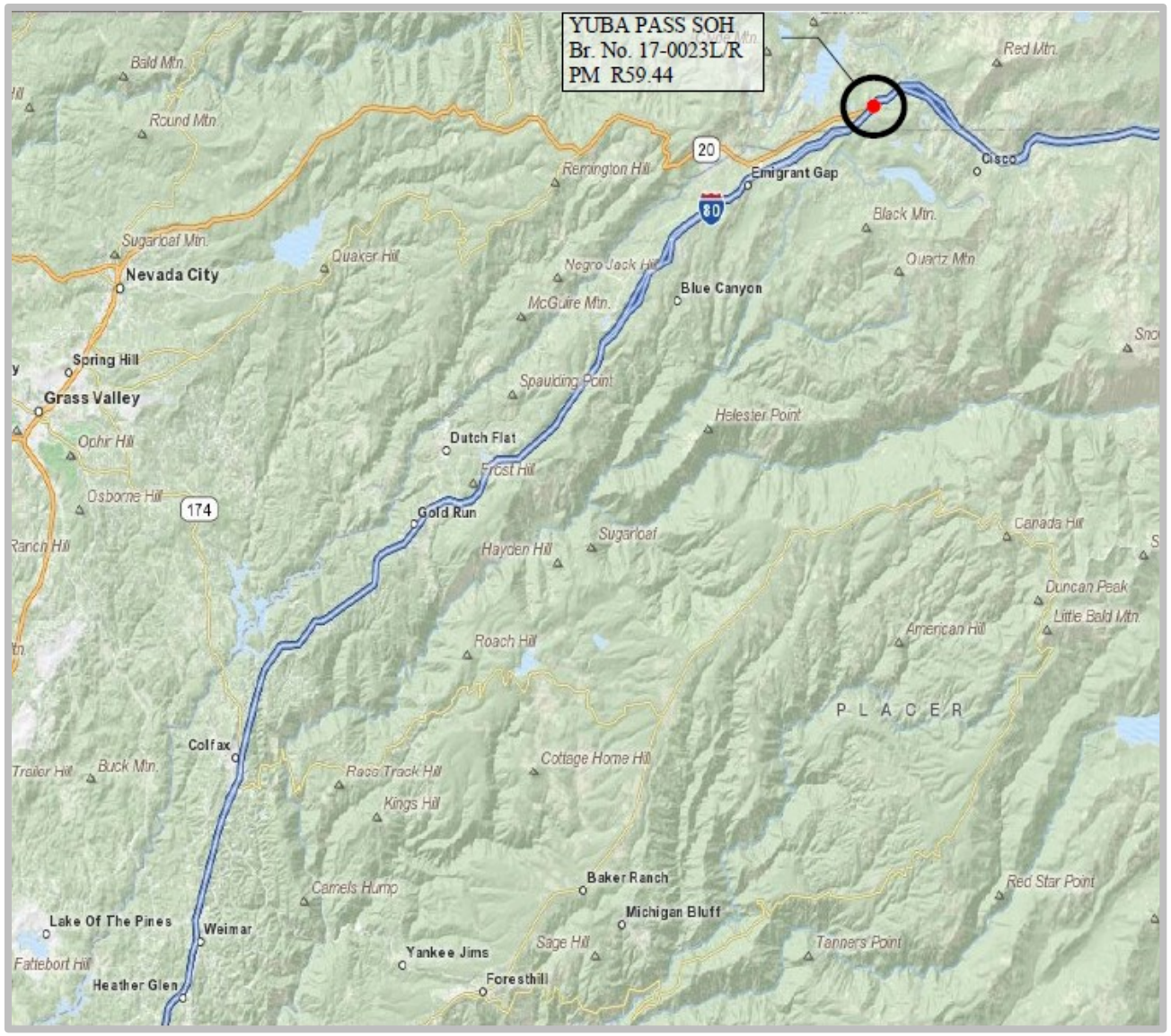

Figure 1. Project Vicinity Map

1.1.3 Viable Alternatives

ALTERNATIVE 1

Caltrans proposes to replace the deficient Yuba Pass bridges on Interstate 80 (I-80) in Nevada County by flattening the horizontal alignment and raise the existing profile of the bridges. The scope of work consists of replacing the existing eastbound bridge with a 60-foot wide structure to meet design standards and the existing westbound bridge with a 72-foot wide structure to meet design standards. Structures would follow a new horizontal alignment with a larger radius curve and a raised profile. A roadway taper would be installed in the westbound direction before and after the westbound bridge. The proposed taper would be constructed towards the median and retaining walls would be constructed in the median center. Culverts at 12 locations would be replaced and rock slope protection would be placed as needed. Also, Roadway Information Systems (RWIS) would be installed on the bridges.

ALTERNATIVE 1A

This alternative is similar to Alternative 1 in the scope of work except it would be constructed using crossovers. Alternative 1a is the first alternative with a new profile and alignment but using a crossover construction method instead of constructing half of both bridges in each season. The crossover method of Alternative 1a would pave a section of the median to allow eastbound traffic to cross the median and travel on the westbound roadway while the eastbound bridge is demolished and reconstructed in one season. The following season would see traffic moved from the westbound to eastbound roadway and the westbound bridge would be demolished and reconstructed in one season.

1.1.4 Alternatives Considered but removed from further consideration

ALTERNATIVE 2

Alternative 2 is similar to Alternative 1 in the scope of work but would be constructed maintaining the existing profile and alignment, and to

accomplish this, would require only spanning the existing railroad track and one future track. The UPR has requested this alternative not be used as it does not span the existing railed road track and two additional proposed tracks.

NO-BUILD ALTERNATIVE

This alternative would maintain the facility in its current condition and would not meet the purpose and need of the project. For each potential impact area discussed in Chapter 2, the No-Build alternative has been determined to have no impact. Under the No-Build alternative, no alterations to the existing conditions would occur and the proposed improvements would not be implemented.

1.2 Permits and Approvals Needed

The following table indicates the permitting agency, permits/approvals and status of permits required for the proposed project.

Table 1. Agency Approvals

Agency	Permit/Approval	Status
California Department of Fish and Wildlife (CDFW)	1602 permit	Pending
Central Valley Water Board (CVWB)	401 permit	Pending
U.S. Army Corps of Engineers (USACE)	404 permit	Pending

Chapter 2 CEQA Environmental Checklist

Environmental Factors Potentially Affected

The environmental factors noted below would be potentially affected by this project. Please see the CEQA Checklist on the following pages for additional information.

Potential Impact Area	Impacted: Yes / No
Aesthetics	**Yes**
Agriculture and Forestry	No
Air Quality	No
Biological Resources	**Yes**
Cultural Resources	No
Energy	No
Geology and Soils	No
Greenhouse Gas Emissions	**Yes**
Hazards and Hazardous Materials	No
Hydrology and Water Quality	**Yes**
Land Use and Planning	No
Mineral Resources	No
Noise	No
Population and Housing	No
Public Services	**Yes**
Recreation	No
Transportation and Traffic	No
Tribal Cultural Resources	No
Utilities and Service Systems	No
Wildfire	No
Mandatory Findings of Significance	**Yes**

The CEQA Environmental Checklist identifies physical, biological, societal, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the project would indicate there are no impacts to a particular resource. A "No Impact" answer in the last column of the checklist reflects this determination. The

words "significant" and "significance" used throughout the checklist and this document are only related to potential impacts pursuant to CEQA. The questions in the CEQA Environmental Checklist 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 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 [Section 1.4]), are an integral part of the project and have been considered prior to any significance determinations documented in the checklist or document.

Project Impact Analysis Under CEQA

CEQA broadly defines "project" to include "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (14 CCR § 15378). Under CEQA, normally the baseline for environmental impact analysis consists of the existing conditions at the time the environmental studies began. However, it is important to choose the baseline that most meaningfully informs decision-makers and the public of the project's possible impacts. Where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project's impacts, a lead agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, a lead agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record. The CEQA Guidelines require a "statement of the objectives sought by the proposed project" (14 CCR § 15124(b)).

CEQA requires the identification of each potentially "significant effect on the environment" resulting from the action, and ways to mitigate each significant effect. Significance is defined as "substantial or potentially substantial

adverse change to any of the physical conditions within the area affected by the project" (14 CCR § 15382). CEQA determinations are made prior to and separate from the development of mitigation measures for the project.

The legal standard for determining the significance of impacts is whether a "fair argument" can be made that a "substantial adverse change in physical conditions" would occur. The fair argument must be backed by substantial evidence including facts, reasonable assumption predicated upon fact, or expert opinion supported by facts. Generally, an environmental professional with specific training in an area of environmental review can make this determination.

Though not required, CEQA suggests Lead Agencies adopt thresholds of significance, which define the level of effect above which the Lead Agency would consider impacts to be significant, and below which it would consider impacts to be less than significant. Given the size of California and its varied, diverse, and complex ecosystems, as a Lead Agency that encompasses the entire State, developing thresholds of significance on a state-wide basis has not been pursued by Caltrans. Rather, to ensure each resource is evaluated objectively, Caltrans analyzes potential resource impacts in the project area based on their location and the effect of the potential impact on the resource as a whole. For example, if a project has the potential to impact 0.10 acre of wetland in a watershed that has minimal development and contains thousands of acres of wetland, then a "less than significant" determination would be considered appropriate. In comparison, if 0.10 acre of wetland would be impacted that is located within a park in a city that only has 1.00 acre of total wetland, then the 0.10 acre of wetland impact could be considered "significant."

If the action may have a potentially significant effect on any environmental resource (even with mitigation measures implemented), then an Environmental Impact Report (EIR) must be prepared. Under CEQA, the lead agency may adopt a negative declaration (ND) if there is no substantial evidence that the project may have a potentially significant effect on the environment (14 CCR § 15070(a)). A proposed negative declaration must be circulated for public review, along with a document known as an Initial

Study. CEQA allows for a "Mitigated Negative Declaration" in which mitigation measures are proposed to reduce potentially significant effects to less than significant (14 CCR § 15369.5).

Although the formulation of mitigation measures shall not be deferred until some future time, the specific details of a mitigation measure may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review. The lead agency must (1) commit itself to the mitigation, (2) adopt specific performance standards the mitigation would achieve, and (3) identify the type(s) of potential action(s) that can feasibly achieve that performance standard and that would be considered, analyzed, and potentially incorporated in the mitigation measure. Compliance with a regulatory permit or other similar processes may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards (§15126.4(a)(1)(B)).

Per CEQA, measures may also be adopted, but are not required, for environmental impacts that are not found to be significant (14 CCR § 15126.4(a)(3)). Under CEQA, mitigation is defined as avoiding, minimizing, rectifying, reducing, and compensating for any potential impacts (CEQA 15370). Regulatory agencies may require additional measures beyond those required for compliance with CEQA. Though not considered "mitigation" under CEQA, these measures are often referred to in an Initial Study as "mitigation", Good Stewardship or Best Management Practices. These measures can also be identified after the Initial Study/Negative Declaration is approved.

CEQA documents must consider direct and indirect impacts of a project (CAL. PUB. RES. CODE § 21065.3). They are to focus on significant impacts (14 CCR § 15126.2(a)). Impacts that are less than significant need only be briefly described (14 CCR § 15128). All potentially significant effects must be addressed.

No-Build Alternative

For each of the following CEQA Environmental Checklist questions, the "No-Build" alternative has been determined to have "No Impact". Under the "No-Build" alternative, no alterations to the existing conditions would occur and no proposed improvements would be implemented. The "No-Build" alternative would not be discussed further in this document.

2.1 Aesthetics

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: a) Have a substantial adverse effect on a scenic vista?				✓
Would the project: b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			✓	
Would the project: 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?			✓	
Would the project: d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				✓

2.1.1 Regulatory Setting

The California Environmental Quality Act (CEQA) establishes it is the policy of the state to take all action necessary to provide the people of the state "with enjoyment of aesthetic, natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).

2.1.2 Environmental Setting

Nevada County is characterized by many areas with scenic qualities including mountain views, sweeping valleys and views of the Yuba River. The

landscape within the project corridor is characterized by rolling vistas of the foothills and valleys in the west, to the scenic views of mountains, meadows, forests, and granitic rock outcroppings of the Sierra Nevada in the eastern portions of Nevada County. Prominent visual resources include views of some of the lower-lying mountains, ridgelines, and scenic highway corridors. The land uses within the project corridor is primarily wilderness, heavily forested landscape, and granitic rock outcroppings. However, there is a Caltrans maintenance facility located near the state route (SR) 20 and Interstate 80 (I-80) junction that houses maintenance and snow removal equipment. The Town of Truckee, approximately 25 miles east of the project corridor, is the closest semi-rural development near the project corridor.

The portion of I-80 within the project limits is considered an Eligible State Scenic Highway. Under current State law, Eligible State Scenic Highways are not granted the same level of protection as Officially Designated State Scenic Highways. A scenic resource visible from the project corridor is Signal Peak (elevation 7,789 feet), which is in the Tahoe National Forest and is situated east of the highway.

The Yuba Donner Scenic Byway runs through Nevada County and a portion of the byway is within the project limits, particularly the byway that follows I-80 west and transitions to SR-20 near Emigrant Gap. The route provides views of alpine valleys and rugged mountains and over Donner Pass and Yuba Pass.

2.1.3 Discussion of CEQA Question 2.1—Aesthetics

a) Would the project have a substantial adverse effect on a scenic vista?

Scenic vistas are often panoramic views that have high-quality compositional and picturesque value. The project corridor does not contain any scenic vistas. Distant views of mountain peaks and ridgelines are present from the corridor, but they are not designated scenic vistas. No views of Signal Peak or surrounding landscape would be obstructed by the proposed project.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway?

The portion of highway within the proposed project limits is an Eligible State Scenic Highway. The project corridor would require vegetation removal but would not have adverse effects on scenic resources. To minimize the visual change to the project corridor, the project proposes highway planting revegetation, including planting trees and low-growing vegetation. Erosion control measures would be applied to stabilize affected slopes and disturbed areas. These features would enhance the appearance of the overall project corridor. The project would not compromise the corridor's future potential change in status to Officially Designated State Scenic Highway.

c) Would the project, 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.)

The proposed project would widen the bridge and a retaining wall and vegetation removal would occur along the median. The lines, textures and forms of the project would result in a similar appearance to the existing highway elements. Views to the east would remain unobstructed and no visual intrusions would be created. Views to the west would have a slight visual intrusion due to the retaining wall, but it would not obstruct scenic views within the project corridor. The forms and scale created by the wider highway would be visually compatible with the surrounding area. The aesthetic treatment of the retaining wall, concrete barriers and fence replacements would allow the project features to visually blend with the surrounding area. Overall, the project would not substantially degrade the visual quality and character of the project corridor and its surroundings.

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

The proposed project would not create any new permanent or temporary substantial sources of light or glare.

2.1.4 Avoidance and Minimization Measures

Minimization measures have been identified to further lessen the visual effects of the project. The following minimization measures would be incorporated into the project.

- The project shall provide aesthetic treatment of the concrete retaining wall and concrete barrier with surface texture, pattern, color, and/or imagery (referred to as "concrete surface textures" in the Caltrans Standard Specifications). The treatment of the concrete structures shall consist of color treatment (integral color). The project shall also provide aesthetic treatment to the fence replacement. The aesthetic treatment of the concrete structures and new fence shall be visually compatible with the highway and surrounding area.
- The project shall install highway planting revegetation within the project corridor, where feasible and to the extent practical. The revegetation shall consist of native trees, including but not limited to native pine trees.

Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.2 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; the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
Would the project: b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
Would the project: c) Conflict with existing zoning or cause rezoning of forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				✓

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
Would the project: e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Nevada County Williamson Act map (Nevada 2017) and the Placer County land use map (Placer 2013). Potential impacts to agriculture and forest resources are not anticipated due to the fact that no Williamson Act land parcels were identified within the project limits. The proposed project is located in timberland zone, but the proposed work would not conflict with existing zoning or cause rezoning of forest land. The proposed project would have no impact on agriculture and forest resources. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.3 Air Quality

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

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
Would the project: 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?				✓
Would the project: c) Expose sensitive receptors to substantial pollutant concentrations?				✓
Would the project: d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Environmental Impact Evaluation (Caltrans 2021f). Potential impacts to air quality are not anticipated due to the proposed project modifications 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. The proposed project would have no impact on air quality. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.4 Biological Resources

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?				✓
Would the project: 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?			✓	
Would the project: 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?			✓	
Would the project: 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?				✓
Would the project: e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: 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?				✓

2.4.1 Regulatory Setting

Within this section of the document (2.4. Biological Resources), the topics are separated into Natural Communities, Wetlands and Other Waters, Plant Species, Animal Species, Threatened and Endangered Species, and Invasive Species. Plant and animal species listed as "threatened" or "endangered" are covered within the Threatened and Endangered sections. Other special status plant and animal species, including California Department of Fish and Wildlife (CDFW) fully protected species, species of special concern, USFWS and NMFS candidate species, and California Native Plant Society (CNPS) rare and endangered plants, are covered in the Plant and Animal sections.

NATURAL COMMUNITIES

The CDFW maintains records of sensitive natural communities (SNC) in the California Natural Diversity Database (CNDDB). SNC are those natural communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special status taxa or their habitat.

WETLANDS AND OTHER WATERS

"Waters" of the United States (including wetlands) and State are protected under several laws and regulations. The primary laws and regulations governing wetlands and other waters include:

- Federal Clean Water Act (CWA), 33 USC 1344

- Federal Executive Order for the Protection of Wetlands (EO 11990)
- State Sections 1600–1607 of the California Fish and Game Code (CFGC)
- State Porter-Cologne Water Quality Control Act, Section 3000 et seq.

PLANT SPECIES

The U.S. Fish and Wildlife Service (USFWS) and CDFW have regulatory responsibility for the protection of special status plant species. The primary laws governing plant species include:

- Federal Endangered Species Act (FESA), United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402
- California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq.
- Native Plant Protection Act, California Fish and Game Code, Sections 1900–1913
- National Environmental Policy Act (NEPA), 40 C.F.R. Section 1500 through Section 1508
- California Environmental Quality Act (CEQA), California Public Resources Code, Sections 21000–2117

ANIMAL SPECIES

The USFWS, National Marine Fisheries Service (NMFS), and CDFW have regulatory responsibility for the protection of special status animal species. The primary laws governing animal species include:

- NEPA, 40 C.F.R. Section 1500 through Section 1508
- CEQA, California Public Resources Code, Sections 21000–21177
- Migratory Bird Treaty Act, 16 U.S.C. Sections 703–712

- Fish and Wildlife Coordination Act, 16 U.S. Code Section 661
- Sections 1600–1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

THREATENED AND ENDANGERED SPECIES

The primary laws governing threatened and endangered species include:

- FESA, United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402
- CESA, California Fish and Game Code, Section 2050, et seq.
- CEQA, California Public Resources Code, Sections 21000–21177
- Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S. Code Section 1801

INVASIVE SPECIES

The primary laws governing invasive species are Executive Order (EO) 13112 and NEPA.

2.4.2 Environmental Setting

The physical setting and climate of the proposed project are typical of upper conifer forests and subalpine regions within the Northern Sierra Nevada mountain range. The nearest weather station is Lake Spalding. According to that weather station, this area has an average high temperature of 61° Fahrenheit (F), and an average low temperature of 34°F. This area receives 68.5 inches of rain (on average) each year and an average of 254 inches (~21 feet) of snowfall each year.

This project is located within the Upper Yuba Watershed which contains the North Yuba, Middle Yuba, and South Yuba Rivers. Soils in the area consist mainly of Tinker-Rock outcrop, granitic-Cryumbrepts, wet complex with 30 to 75% slopes (33.9% area of interest [AOI]). The next most prevalent soil type is

rock outcrop, granitic-Putt complex with 30 to 75% slopes (32.9% AOI). The area that the creek runs through is categorized by Tallac-Cryumbrepts, wet complex with 2 to 30% slopes (11.5% AOI).

The area is comprised mostly of Sierra Mixed Conifer (46%) with a White Fir alliance (20%) which is defined as high elevation and often more moisture-deficient counterpart of the Mixed Conifer - Pine Alliance. It occurs at elevations up to about 9000 feet (2745 meters) in this zone, typically on eastside soils. An extensive type, it has been mapped widely and very abundantly in eleven subsections and less frequently in seven others. Three major species define this mixed conifer type: White Fir (*Abies concolor*), Jeffrey Pine (*Pinus Jeffrey*), and/or Lodgepole Pine (*P. contorta ssp. murrayana*). At lower elevations, the Mixed Conifer Pine Alliance associates such as Pacific Douglas-Fir (*Pseudotsuga menziesii*) and Ponderosa Pine (*P. ponderosa*) may occur in trace amounts in the Mixed Conifer - Fir type. As elevations begin to increase, Red Fir (*A. magnifica*) becomes more prominent. Other associates at all elevations may include Sugar Pine (*P. lambertiana*) and Incense Cedar (*Calocedrus decurrens*). Upper elevation and Great Basin shrubs are often found on or next to these locations, including Greenleaf Manzanita (*Arctostaphylos patula*), Huckleberry Oak (*Quercus vaccinifolia*), Curlleaf Mountain Mahogany (*Cercocarpus ledifolius*), Snowbrush (*Ceanothus velutinus*), Mountain Alder (*Alnus incana ssp. tenuifolia*), Mountain Sagebrush (*Artemisia tridentata ssp. vaseyana*), and Bitterbrush (*Purshia tridentata*). Black Oak (*Q. kelloggii*), Willows (*Salix spp.*) and Quaking Aspen (*Populus tremuloides*) are also likely to occur on these sites.

2.4.3 Studies and Surveys Conducted

To prepare for the field surveys, biologists reviewed existing resource information related to the project to evaluate whether special-status species or other sensitive biological resources (e.g., waters of the United States) could occur within the proposed project limits.

A list of special-status plants and animals within the project vicinity was obtained based on information queried from the California Natural Diversity

Data Base (CNDDB) (CDFW, 2021), U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) (USFWS, 2021), the California Native Plant Society (CNPS) (CNPS, 2021), and the National Marine Fisheries (NMFS) West Coast Region intersection for the Cisco Grove United States Geological Survey (USGS) 7.5' quadrangles. Table 2 presents the full list of sensitive species and habitats potentially occurring in the project vicinity that were considered during the review of this project. The national wetlands inventory (NWI) was also reviewed (USFWS, 2021).

Field reviews were conducted during 2021 to assess the proposed project and greater biological study area (BSA) for the presence of biological resources such as special-status plants and wildlife, and federal or state jurisdictional waters and wetlands. This includes all areas of work, staging, and stockpiling. The BSA includes the entirety of the proposed project limits and all areas that could potentially be indirectly impacted.

Caltrans project biologists Rebecca Cole and Gregory Saiyo conducted a site review on May 26, 2021. No species of special concern or rare plants were observed during this survey. A full vegetative and rare plant survey was conducted by Rebecca Cole and Caltrans botanist Anna Burns during the 2021 spring blooming period and growing season. Two aquatic resource features (perennial stream and wetland) were observed during the 2021 surveys. This perennial stream is anticipated to be impacted by the proposed project. Further surveys to confirm ordinary high-water mark (OHWM) would be conducted in the 2022 field season.

2.4.4 Discussion of CEQA Question 2.4a—Biological Resources

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

Based on searches of the CNDDB, the CNPS rare plant inventory, NMFS's list, and USFWS's list, 18 special-status plant and animal species were identified as

having the potential to occur in the vicinity of the proposed project, see Table 2 below.

Table 2. List of Special-Status Plant and Animal Species

Plant Species	Mammal Species	Amphibians	Fish Species	Sensitive Habitats
Scalloped moonwart	California wolverine	Southern long-toed salamander	Delta smelt	Chinook Salmon Essential Fish Habitat
Watershield	Sierra Nevada snowshoe hare	California red-legged frog	-	-
Thread-leaved beakseed	-	Sierra Nevada yellow-legged frog	-	-
Wooly-fruited sedge	-	-	-	-
Mud sedge	-	-	-	-
Starved daisy	-	-	-	-
Stebbins' phacelia	-	-	-	-
Nuttall's ribbon-leaved pondweed	-	-	-	-
Alder buckhorn	-	-	-	-
White beaked-rush	-	-	-	-
Water bulrush	-	-	-	-

After a review of species distribution, habitat requirements data, and field surveys, it was determined that no species of special concern have the potential to occur within the proposed project limits because the area lacks suitable habitat for the species or is outside the species' known range. Furthermore, no special plant and animal status species were observed during initial field surveys and there are no special status habitats of concern within the proposed project limits.

2.4.5 Discussion of CEQA Question 2.4b—Biological Resources

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

Riparian habitat is located along the unnamed stream within the proposed project limits. For all alternatives of the proposed project, construction of the project would likely necessitate the movement of equipment across the unnamed stream, therefore a clear water diversion would be required. Because the removal of the clear water diversion after construction has not been confirmed, construction of the new bridges would result in approximately 2,500 square feet, about 0.07 acre of permanent impacts to this stream. This area of impact includes the footprint of the bridge piers. However, if the clear water diversion would be removed, then these impacts can be considered temporary. Because of the relatively small area the proposed project would affect, the impact would be less than significant.

2.4.6 Discussion of CEQA Question 2.4c—Biological Resources

c) Would the project 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?

Surveys for wetlands or other waters of the U.S. or State were incorporated into the June 3, 2021 and June 16, 2021 field surveys. Surveys concluded 0.62 acre of potential wetlands of the U. S. were observed within the proposed project limits. The proposed project would impact a portion of wetlands due to construction of the Interstate 80 (I-80) west onramp. Because cut/fill has not been determined for this portion of the project, it is assumed the entirety of the wetland (approximately 600 square feet or 0.01 acre) would be filled.

If Alternative 1a is selected, construction of the crossovers would additionally result in approximately 0.4 acre of permanent impacts to waters of the U.S. (WOTUS) and approximately 0.2 acre of permanent impacts to wetlands.

Because of the relatively small area of wetlands the proposed project would affect, the impact would be less than significant.

2.4.7 Discussion of CEQA Question 2.4d—Biological Resources

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

During all three field visits, deer tracks were observed along the railroad and under State Route (SR) 80. Deer are using the undercrossing to move across SR 20 under SR 20. Deer prints were also observed along the creek upstream of where any work would be done; this suggests that wildlife use this creek as a source of water in the spring/summer months. Table 3 shows deer casualties on SR 80 and SR 20 within the proposed project limits since 1979. Most of the recorded deaths occurred from 1983 to 1989, then tapered off significantly through the 90's and 2000's. This shift may be due to safety improvements to vehicles, increased roadway maintenance (snow removal), or fewer deer attempting to cross. The proposed project would have no impact on connectivity because there is no plan to close off the underpass that allows deer to freely pass under SR 80.

Table 3. Deer casualties on State Route 80 and 20

County	Route	Postmile	Type	Number	Date
NEV	20	45.55	Buck	1	08/02/2004
NEV	80	58.90	Buck	1	09/28/1988
NEV	80	58.90	Doe	1	05/17/1989
NEV	80	59.00	Doe	1	06/04/1979
NEV	80	59.00	Fawn	1	06/23/1989
NEV	80	59.00	Fawn	1	06/23/1989
NEV	80	59.00	Doe	1	07/09/1990
NEV	80	59.00	Doe	1	08/05/1991
NEV	80	59.00	Doe	1	09/08/1992
NEV	80	59.00	Doe	1	09/10/1992
NEV	80	59.30	Unknown	1	07/13/1979

NEV	80	59.35	Unknown	1	09/25/2007
NEV	80	59.40	Doe	1	08/08/1986
NEV	80	59.79	Unknown	1	08/08/2009
NEV	80	60.00	Doe	1	09/07/1983
NEV	80	60.00	Doe	1	05/19/1987
NEV	80	60.00	Buck	1	07/26/1988
NEV	80	60.00	Doe	1	08/01/1988
NEV	80	60.00	Buck	1	06/05/1989
NEV	80	60.00	Unknown	1	05/08/1990
NEV	80	60.00	Fawn	1	08/06/1992
NEV	80	60.00	Unknown	1	09/16/1992
NEV	80	60.04	Unknown	1	08/17/2009
NEV	80	60.10	Doe	1	05/20/1986
NEV	80	60.10	Doe	1	05/28/1986
NEV	80	60.10	Unknown	1	10/01/1987
NEV	80	60.10	Unknown	1	08/06/1992
NEV	80	60.10	Unknown	1	09/16/1992
NEV	80	60.20	Unknown	1	05/08/1985
NEV	80	60.20	Unknown	1	06/12/1985
NEV	80	60.20	Doe	1	05/21/1986
NEV	80	60.80	Buck	1	06/05/1986

2.4.8 Discussion of CEQA Question 2.4e—Biological Resources

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

The proposed project would not conflict with any local polices or ordinances protecting biological resources.

2.4.9 Discussion of CEQA Question 2.4f—Biological Resources

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The proposed project would not conflict with the provisions of local, regional, or state habitat conservation plan.

2.4.10 Avoidance and Minimization Measures

Additional surveys during the 2022 growing season and appropriate blooming periods for the species are proposed to increase the certainty that no special status plants are present within the proposed project limits. If special status plants are found during future surveys, avoidance and minimization measures such as translocation, soil salvage, and/or seed collection would be incorporated into the project. Due to finding active bird nests during the 2021 nesting season, nesting bird surveys would need to be conducted before any vegetation removal or bridge demolition.

For all riparian areas not being impacted by the project, Caltrans would designate these as Environmentally Sensitive Areas and protect them in place by demarcating them during construction with high visibility fencing.

For all wetlands and waters of the U.S. and State not being impacted by the proposed project, Caltrans would designate these as Environmentally Sensitive Areas and protect them in place by demarcating them during construction with high visibility fencing.

The wetland impacts would require Caltrans to secure a 404 permit, a 401 permit, and a 1602 Lake or Streambed Alteration Agreement (LSAA).

2.4.11 Permit Requirements

To compensate for permanent impacts on aquatic resources, Caltrans would participate in U.S. Army Corps of Engineers (USACE's) in-lieu fee program. The minimum compensation ratio for aquatic resources would be 1:1 (1 acres of aquatic habitat credit for every 1 acre of impacts) to ensure no net loss of aquatic habitat functions and values. However, the final mitigation ratios would be determined by the USACE during the permitting process. Caltrans would also implement the conditions and requirements of permits that would be obtained for the proposed project.

If the clear water diversion is removed post-construction, on-site revegetation would be conducted post-construction for the 0.7 acre of temporary impacts to riparian vegetation. Caltrans would create a restoration plan prior to vegetation removal. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.5 Cultural Resources

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Historic Property Survey Report (Caltrans 2021b).

The proposed project does not have the potential to affect any archaeological sites or other cultural resources based on investigation of the project areas and the scope of work being performed. No archaeological properties listed on the National Register of Historic Places, California Historical Landmarks, California Inventory of Historic Resources, California Points of Historical Interest, or California Register of Historical Resources are present within the proposed project area. No built environment properties would be affected or require studies. While the Union Pacific Railroad has been previously found to be an eligible resource under the National Register of Historical Resources, the project is not occurring on the railroad, only encroaching temporarily into the Right of Way. The borings are not permanent, have no potential to impact the resource, and therefore no studies are required; accordingly, the proposed project would not have an impact on cultural resources. Based on the determinations made in the

CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.6 Energy

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Environmental Impact Evaluation Energy Memo (Caltrans 2021a).

For direct energy related to construction, the proposed project would result in short-term energy consumption related to the manufacture of construction materials, the use of construction equipment that requires petroleum fuels, and the use of construction workers' motor vehicles as they travel to and from the site. Construction activities would last less than three years. Thus, construction-related energy consumption anticipated under the Build Alternative would be finite and limited and would have an incremental impact on area energy supplies. With the inclusion of project features, no adverse temporary impacts are anticipated.

For direct energy related to long-term impacts, the proposed project does not increase capacity, and thus does not add traffic, so a net increase in energy consumption is not anticipated. Therefore, no adverse long-term impacts are anticipated, and the project would not impact energy.

The proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary

consumption of energy resources during project construction or operation or conflict with the state or local plan of renewable energy. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.7 Geology and Soils

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

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓
Would the project: f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, and field reviews conducted. Potential impacts to geology and soils are not anticipated due to no faults, unstable geologic units or soil, or expansive soil identified within the project limits. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.8 Greenhouse Gas Emissions

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

2.8.1 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_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 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_2.

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 would include a discussion of both.

2.8.2 Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce greenhouse gas 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 (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— "the triple bottom line of sustainability" (FHWA n.d.). 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 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, 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. Fuel efficiency standards directly influence GHG emissions.

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% 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.

Assembly Bill 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 (CARB) 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)).

The law requires the CARB 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% by the year 2020. The CARB 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.

Senate Bill (SB) 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the CARB 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 would 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 the CARB, 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% below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80% 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 the CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO2e).[1] 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% 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, 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.

[1] GHGs differ in how much heat each trap in the atmosphere (global warming potential or GWP). CO_2 is the most important GHG, so amounts of other gases are expressed relative to CO_2, using a metric called "carbon dioxide equivalent" (CO_2e). The global warming potential of CO_2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO_2.

SB 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles traveled to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires the CARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18 (September 2018): Sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019): Advances California's climate goals, in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs the CARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

EO N-79-20 (September 2020): establishes goals for 100% of in-state sales of new passenger cars and trucks to be zero-emissions vehicles by 2035, that the state transition to 100% zero-emission off-road vehicles and equipment by 2035 where feasible, and that 100% of medium- and heavy-duty vehicles in the state be zero-emissions by 2045 where feasible.

2.8.3 Environmental Setting

The proposed project is in a rural area, with a primarily natural resource-based agriculture and tourism economy. SR 20 and Interstate 80 (I-80) are the main transportation route to and through the area for both passenger and

commercial vehicles. The Union Pacific Railroad tracks run parallel to SR-20 and I-80. Both bridges are located in Nevada County 0.6 miles east of Lake Valley Road Overcrossing Bridge and 4.6 miles west of Cisco Overcrossing Bridge and cross over the existing Union Pacific Railroad (UPR).

The Nevada County Transportation Commission and Placer County Transportation Planning Agency guides transportation development in the project area. The Nevada County General Plan circulation and safety elements (NCTC 2010, 2020) also address GHGs and climate change in the project arear.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, 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 CARB 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 (see Figure 2). The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO_2, CH_4, N_2O, HFCs, perfluorocarbons, SF_6, and nitrogen trifluoride. It also accounts for emissions of CO_2 that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store CO_2 (carbon sequestration). The 1990–2019 inventory found that overall GHG emissions were 6,558 million metric tons (MMT) in 2019, down 1.7% from 2018 but up 1.8% from 1990 levels. Of these, 80% were CO2, 10% were CH4, and 7% were N2O; the balance consisted of fluorinated gases. CO2 emissions in 2019 were 2.2% less than in 2018, but 2.8% more than in 1990. As shown on Figure 2, the transportation sector accounted for 29% of U.S. GHG emissions in 2019 (U.S. EPA 2021a, 2021b).

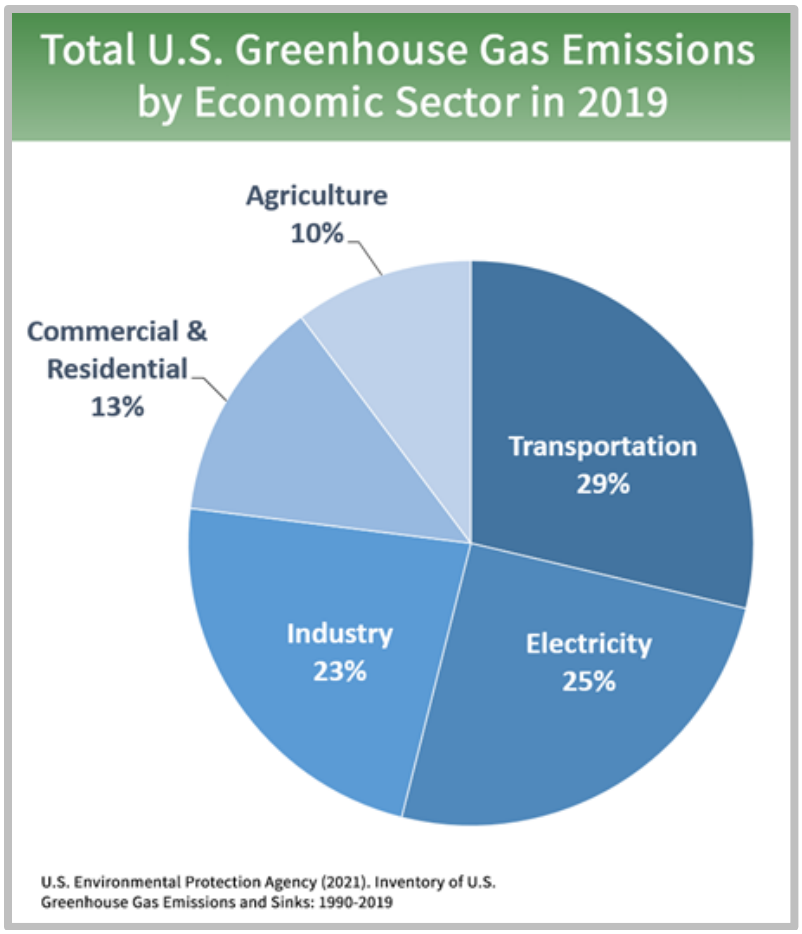

Figure 2. U.S. 2019 Greenhouse Gas Emissions (source: U.S. EPA 2021c)

STATE GHG INVENTORY

The CARB 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 2020 edition of the GHG emissions inventory reported emissions trends from 2000 to 2018. It found total California emissions were 425.3 MMTCO2e in 2018, 0.8 MMTCO$_2$e higher than 2017 but 6 MMTCO$_2$e lower than the statewide 2020 limit of 431 MMT CO$_2$e. The transportation sector was responsible for 41% of total GHGs. Transportation emissions decreased in 2018 compared to the previous year, which is the first year over year decrease since 2013. Overall statewide GHG emissions declined from 2000 to 2018 despite growth in population and state economic output (ARB 2020a).

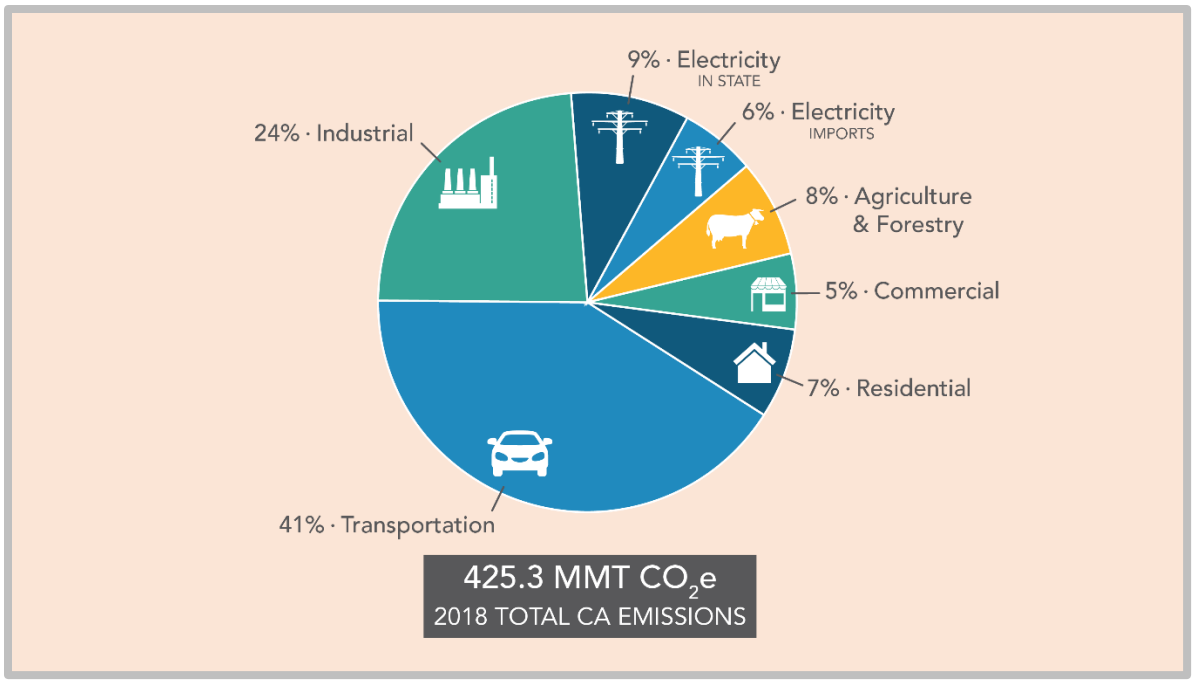

Figure 3. California 2018 Greenhouse Gas Emissions by Economic Sector (Source: ARB 2020b)

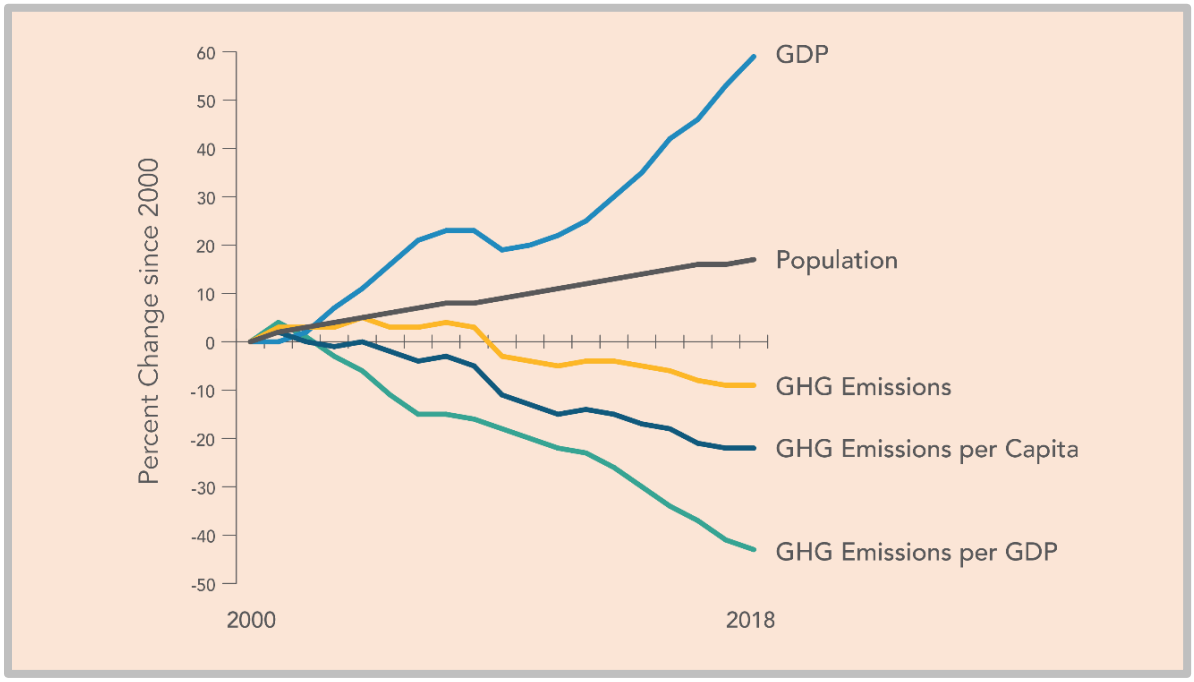

Figure 4. Change in California GDP, Population, and GHG Emissions Since 2000 (Source: CARB 2019b)

AB 32 required CARB 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. The CARB 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.

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. The proposed project spans the jurisdictions of the Placer County Transportation Planning Agency (PCTPA) and the Nevada County Transportation Commission (NCTC), regional transportation planning agencies that produce their own RTPs but are not required to produce an SCS. The Sacramento Area Council of Governments (SACOG) is the MPO for the six-county region that includes Placer County (but not Nevada County). CARB's GHG reduction targets for SACOG are currently 7% by 2020 and 19% by 2035 (CARB 2019). The PCTPA coordinates with SACOG to ensure PCTPA's RTP is consistent with and supports the regional plan.

PCTPA's 2036 RTP supports projects that reduce vehicle trips and GHG and air quality emissions, such as those that accommodate travel by transit, bicycle, and pedestrian modes. The RTP's Air Quality Action Plan short- and long-range goals include the following (PCTPA 2016: 7-19—7-21).

- Prioritize and recommend transportation projects that minimize vehicle emissions while providing cost effective movement of people and goods.
- Ensure transportation planning efforts comply with SB375 and AB32.
- Encourage jurisdictions and Caltrans to develop a green construction policy, the recycling of construction debris to the maximum extent feasible, and to use the minimum feasible amount of GHG emitting materials in the construction of transportation projects.

- Encourage jurisdictions and Caltrans to use lighter colored pavement with increased reflectivity in pavement rehabilitation projects, to reduce the urban heat island effect.

- Encourage jurisdictions and Caltrans to protect, preserve, and incorporate trees and natural landscaping into transportation projects to provide shade, buffer winds, encourage people to walk, and to sequester CO_2.

The NCTC 2015–2035 RTP includes Goal G6-P3, reduce greenhouse gas emissions and other air pollutants. This goal has a performance target of reducing GHG emissions in the county by 2.5% per year (NCTC 2018).

The Nevada County General Plan addresses climate change and GHG emissions in its circulation and safety elements. The Circulation Element contains Goal EP-4.3, to the extent feasible, encourage the reduction of Greenhouse Gas emissions during the design phase of construction projects; and Goal EP-4.4, to the extent feasible, encourage the development of energy efficient circulation patterns. The Safety Element contains Goal CC-10.13, Build Climate-Resilient Communities and Protect Neighborhoods, Public Infrastructure and Natural Resources Through Mitigating Climate Change.

2.8.4 Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the State Highway System (SHS) and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH_4 and N_2O 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 (Public 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 §§ 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.

OPERATIONAL EMISSIONS

The purpose of the proposed is to address structural deficiencies and increase the load carrying capacity of the Yuba Pass Bridges along I-80 in Nevada County by replacing the bridges with wider structures, but will not increase the vehicle capacity of the roadway. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on State Route 20 and Interstate 80, no increase in vehicle miles traveled (VMT) would occur due to construction of the project. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

CONSTRUCTION EMISSIONS

Construction GHG emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions would 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 1.3) was used to estimate average carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and Hydrofluorocarbons (HFCs) emissions from construction activities. The estimated emissions would be 791 tons of CO_2, less than 1 CH_4, less than 1 N_2O, and less than 1 HFCs over a period of 360 working days (Caltrans 2021f).

All construction contracts include Caltrans Standard Specifications Sections 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 would comply with all CARB 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.

2.8.5 CEQA Conclusion

While the proposed project would result in GHG emissions during construction, it is anticipated the project would not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. While GHG emissions are less than significant, GHG reduction measures will be incorporated into the construction contract of the proposed project.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

2.8.6 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 (see Figure 5) that involved (1) reducing today's petroleum use in cars and trucks by up to 50%; (2) increasing from one-third to fifty 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.

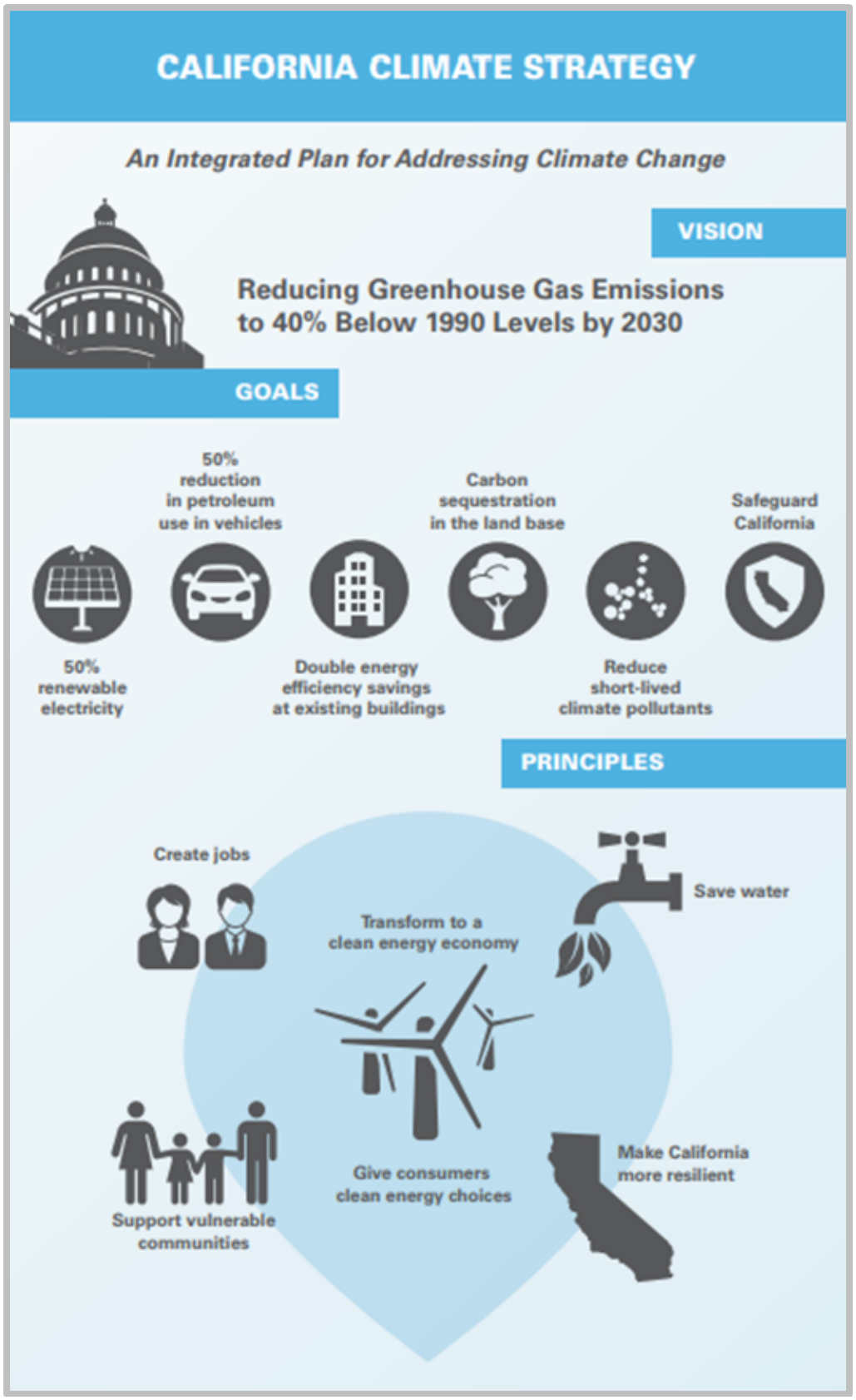

Figure 5. California Climate Strategy

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 GHG emissions is to reduce today's petroleum use in cars and trucks by up to 40% by 2030 (California Environmental Protection Agency 2015).

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.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged and vulnerable communities. Each agency is to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the State's carbon neutrality goal and build climate resilience.

CALTRANS ACTIVITIES

Caltrans continues to be involved on the Governor's Climate Action Team as the CARB 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% below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021ha).

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 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, the CTP identifies additional strategies.

Caltrans Strategic Plan

The Caltrans 2020–2024 Strategic Plan includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021bi).

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) established a Department policy to 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 Greenhouse Gas Reduction Strategies

The following measures would also be implemented in the project to reduce greenhouse gas emissions during project construction and potential climate change impacts from the project.

- The construction contractor must comply with the 2018 Caltrans' Standard Specifications Section 14-9. Section 14-9.02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

- Caltrans' Standard Specification 7-1.02C "Emissions Reduction" ensures that construction activities adhere to the most recent emissions reduction regulations mandated by the California ARB.

- Compliance with Title 13 of the California Code of Regulations, which includes restricting idling of construction vehicles and equipment to no more than 5 minutes.

- Utilize a traffic management plan to minimize vehicle delays and idling emissions. Anticipated traffic control would have an estimated maximum delay of 10 minutes during reversing control and 20 minutes during intermittent closure. During k-rail placement and tie-in construction operations, public traffic may be stopped in both

directions for periods not to exceed 5 minutes. After each closure, all accumulated traffic must be allowed to pass through the work zone before another closure is made.

- Construction traffic would be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- The project shall install highway planting revegetation within the project corridor, where feasible and to the extent practical. The revegetation shall consist of native trees, including but not limited to native pine trees.

2.8.7 Adaptation Strategies

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 would vary by location and may, in the most extreme cases, require 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 (USGCRP) delivers a report to Congress and the President every four 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" (USGCRP 2018).

The *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 order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions" (U.S. DOT 2011).

FHWA Order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events, December 15, 2014*) 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 (FHWA 2019).

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 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:

- *Adaptation* to climate change refers to adjustments 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 factors. These factors include, but are not limited to, ethnicity, class, sexual orientation and identification, national origin, and income inequality. 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 to state agencies on how to 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.

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

PROJECT ADAPTATION ANALYSIS

Sea-Level Rise

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

Floodplains

According to the Federal Emergency Management Agency (FEMA) floodplain, the proposed project falls with Flood Zone D, which is an area where flood hazards are undetermined. Hydraulics verified no flooding or drainage issues exist in the project limits. Existing drainage features on the bridges are drainpipes that disperse water from paved shoulders into vegetated gore areas.

The Caltrans District 3 Climate Change Vulnerability Assessment (Caltrans 2019) anticipates the project area (and the District) to receive less precipitation overall in the future but arriving in heavier individual events. Mapping of future potential precipitation changes shows that the proposed project could experience a more than 10% increase in 100-year storm precipitation from 2055 through 2085 under a conservative (business-as-usual) GHG emissions scenario. (The 100-year flood design standard is commonly considered in the design of transportation assets.)

The project proposes 2.66 acres of new impervious surface area which would require permanent best management practices (BMPs) to manage both stormwater and non-stormwater discharges from the project site. Based on this increase, it is anticipated that the project would have some effect on downstream flows. The following permanent BMPs would be implemented.

- Increased flow velocity and volumes would be evaluated during project approval and environmental document stage, and the appropriate minimization measures determined at that time would be implemented.

- New slopes and Disturbed Soil Areas would be stabilized and vegetated in accordance with plans approved by the District Landscape Architect. Stabilization systems would be incorporated during the design phase to increase the site perviousness to the degree feasible.
- The BMPs outline in the hydrology and water quality section of this document would be implemented as well.

Wildfire

The proposed project is in a state responsibility area that the Caltrans District 3 Climate Change Vulnerability Assessment maps as exposed roadway in a zone of high wildfire concern from 2021 through 2085. The project scope of work would not introduce new structures or features that would be more vulnerable to wildfire. During construction, Caltrans would implement Caltrans 2018 revised Standard Specification 7-1.02M (2), which mandates fire prevention procedures during construction, including a fire prevention plan. The project is not anticipated to exacerbate the impacts of wildfires intensified by climate change.

2.9 Hazards and Hazardous Materials

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				✓
Would the project: 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?				✓
Would the project: c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
Would the project: 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?				✓
Would the project: e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				✓
Would the project: f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Initial Site Assessment Memo (Caltrans 2021d). Potential impacts to hazardous waste are not anticipated due to no altered ultramafic bedrock, alluvium derived from ultramafic rock, or other rock commonly associated with Naturally Occurring Asbestos being present at the project site. The proposed project is not within or impacting any site on the Cortese List. The proposed project is not within 2 miles of an airport and will not interfere with any emergency plans. To prevent lead, thermoplastic paint, and treated wood waste, Caltrans would adhere to the standard special provisions outlined in the plans, specifications, and estimate (PS&E) package. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.10 Hydrology and Water Quality

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
Would the project: b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
Would the project: 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 offsite;				✓
(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?			✓	
Would the project: d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project: e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			✓	

2.10.1 Regulatory Setting

The primary laws and regulations governing hydrology and water quality include:

- Federal Clean Water Act (CWA), 33 USC 1344
- Federal Executive Order for the Protection of Wetlands (EO 11990)
- State Sections 1600–1607 of the California Fish and Game Code (CFGC)
- State Porter-Cologne Water Quality Control Act, § 13000 et seq.

2.10.2 Environmental Setting

The proposed project crosses two watersheds, the South Fork Yuba River (Spaulding Reservoir to Englebright Reservoir) and the Chubb Lake, which are the primary receiving waters for this project. Existing drainage features on the bridges are drainpipes that collect water from paved shoulders and disperse it onto vegetated gore areas.

The elevation of this project ranges from around 5400 to 5800 feet. According to UC Davis' Soil Data Explorer, the vicinity of this project is mostly occupied by rocky outcrops surrounded by Tinker, Putt and Ledmount series soils. These are well and excessively drained soils formed from materials weathered by glacial deposits.

2.10.3 Discussion of CEQA Question 2.10—Hydrology and Water Quality

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction-related activities would result in surface disturbances with the potential to violate water quality standards and waste discharge requirements (WDRs) if sediment or contaminant-laden runoff from work areas enters storm drains or other pathways leading to receiving waters. However, it is anticipated that the project would be regulated under the Construction General Permit (CGP) and appropriate compliance measures would be implemented to avoid discharges and potential water quality threats within the project area. For example, compliance with the CGP requires a risk level analysis based on the project's potential erosion and transport to receiving waters. The results of this analysis would be utilized to determine standard water quality protection measures (to be implemented) in order to avoid surface and ground water quality degradation during construction operations. It is anticipated that BMP usage, placement, field implementation and effectiveness would be monitored, adjusted, and modified (accordingly) for the duration of the project. Compliance with all applicable NPDES Permits, in addition to coordination with the Regional Water Quality Board, is expected to ensure the protection of water resources in the area.

For projects having 1 acre of more of new impervious area, Caltrans' MS4 Permit requires the implementation of storm water design features and a strategy to treat runoff and manage impervious and pervious areas within the project limits. Specific design features would be vetted, and (storm water related) decisions made would be documented within the project design and environmental technical studies.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The intended use of the facility and potential pollutants that would be encountered in storm water runoff after the project is constructed is not anticipated to change from its current condition. The groundwater elevation within this corridor historically fluctuates but is not anticipated to permanently impact proposed drainage devices, storm water treatment, or other design features. Additionally, due to excavation occurring on a temporary and short-term basis, during the construction period, groundwater resources should not be affected, and it is not anticipated that the project would negatively impact regional sustainable groundwater management (within the project vicinity).

c) Would the project 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?

Compliance with the Construction General Permit (GCP) is anticipated to address the implementation of minimization and avoidance measures. It is expected that standard construction erosion control measures would be utilized to avoid erosion and siltation for the duration of project activities. BMP measures and field implementation strategies would be outlined in the Contractor prepared and Caltrans approved SWPPP. These would likely include temporary soil stabilization measures, linear sediment barriers (i.e. silt fence, gravel bag berms, fiber rolls), and construction site waste management (i.e. concrete washout, construction materials storage, litter/ waste management), among other approved controls.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

It is anticipated that drainage system design would focus on perpetuating existing highway drainage conditions to the greatest extent feasible. New drainage features would be designed to perpetuate flow in the existing direction and would have similar or greater capacity than what currently

exists, in support of current design standards and the proposed design features for the project.

(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?

Drainage devices, within the project limits, would be designed to accommodate the anticipated change in flow. In compliance with Caltrans' MS4 Permit, treatment BMPs would be incorporated into the project design, where applicable and feasible, to treat the new impervious area anticipated for the project. The implementation of BPMs meant to treat general pollutants would be evaluated and an analysis of site characteristics to optimize water quality volume/water quality flow and maximize site perviousness would be performed.

(iv) impede or redirect flood flows?

The proposed project crosses two watersheds; however, due to the topography, only has the potential to cause impact to the Yuba River watershed. The South Fork Yuba River (Spaulding Reservoir to Englebright Reservoir) and Chubb Lake are the primary receiving waters for this project. Hydraulics determined the proposed project would not impede or redirect flood flows since the project would preserve the existing vegetation on the slope and other related surroundings to the maximum extent practical in accordance with any environmental permits/agreements. New slopes would be stabilized and vegetated in accordance with plans approved by the District Landscape Architect. The stabilization process should also integrate features that would increase the site perviousness to the degree practicable.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The proposed project does not fall within a high-risk receiving watershed and it is not located in a flood hazard risk area.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

It is expected that temporary impacts to localized water quality and groundwater that may occur would be minimized and/or avoided through the use of Best Management Practices and NPDES permit (i.e. CGP and Caltrans' MS4) compliance practices. The implementation of water quality measures, meant to promote storm water infiltration practices and low impact development, is anticipated. Additionally, due to excavation occurring on a temporary and short-term basis during the construction period, groundwater resources should not be affected to any great extent or degree.

2.10.4 Minimization and Avoidance Measures

Caltrans would adhere to the following measures to help ensure NPDES and CGP compliance and to further prevent receiving water pollution due to construction activities and/or operations related to the project.

1. All temporary equipment and material storage sites on State property must be accounted for and included in the total land disturbance estimate, unless a stabilization method has been implemented, reviewed, and approved by NPDES or Storm Water staff.

2. The project shall adhere to the conditions of the Caltrans Statewide NPDES MS4 Permit CAS No. 000003, Order No. 2012-0011-DWQ, and adopted amendments.

3. The Contractor prepared (and Caltrans approved) SWPPP would provide and incorporate appropriate approved Temporary Construction Site BMPs that address the effective implementation, placement, handling, storage, use, and disposal practices of all BMPs used during construction operations and field activities for the duration of the project.

4. The project must follow all applicable guidelines and requirements listed in the 2018 Caltrans Standard Specifications (2018 CSS), Section 13, regarding water pollution control and general specifications for preventing, controlling, and abating pollutant discharges into streams, waterways, and other bodies of water.

a. Specifically, a concerted effort and focus should be placed on 2018 CSS, Section 13-4 (Job Site Management), to control potential sources of water pollution before they encounter storm water conveyance systems or receiving waters. This can be accomplished by controlling and managing materials, discarded waste, and non-storm water pollution at the construction site and within the project boundaries.

b. Some operations may require attention to Sections 13-9.02C and 13-9.02D of the 2018 CSS, which relates to and addresses the handling of concrete waste during construction operations.

5. Prior to the start of construction, existing drainage facilities should be identified and protected by the application of appropriate Temporary Construction Site BMPs.

6. If and where applicable, shoulder backing areas should be stabilized by Temporary Construction Site BMPs, or rolled and compacted in place, by the end of each day prior to the onset of precipitation.

Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.11 Land Use and Planning

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Nevada County General Plan (Nevada 2017) and the Placer County General Plan (Placer 2013). The proposed project would not divide an established community, conflict with any applicable land use plan, policy, or regulation, or conflict with any habitat conservation plan or natural community conservation plan; therefore, the project would not impact land use and planning. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.12 Mineral Resources

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the lack of mineral resources identified within the project limits; therefore, the proposed project would not impact mineral resources. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.13 Noise

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				✓
Would the project result in: b) Generation of excessive groundborne vibration or groundborne noise levels?				✓
Would the project result in: c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Environmental Impact Evaluation (Caltrans 2021f). Potential impacts to noise are not anticipated due to this project being considered a Type III project. Traffic noise impact is not predicted to occur from the proposed project; therefore, noise abatement is not considered. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.14 Population and Housing

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts to population and housing are not anticipated because the project would not increase capacity or access; therefore, the project would not directly or indirectly induce population growth. The project would not add new homes or businesses and would not extend any roads or other infrastructure. There are no residences within the project area, and no replacement housing would be necessary. The project would have no impact the population and housing. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.15 Public Services

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

2.15.1 Environmental Setting

This project is located on I-80, a multi-lane freeway in Placer and Nevada Counties near Emigrant Gap. I-80 connects the Bay Area and the Tahoe/Nevada area and functions as a primary transportation corridor through the Sierra Nevada. The speed limit for this facility is 65 miles per hour (mph).

The proposed project would replace the existing Yuba Pass bridges located at State Route 20 and 80 separation in Nevada County. The new bridges would be wider to increase freight efficiency. The existing roadway near the new bridges would be removed and rebuilt so that they are compatible with the new structures. The roadway profile would be raised to meet current

vertical clearance standards and horizontal alignment of the highway would be improved minimally. The loop onramp to westbound 80 would be modified to be compatible with the new bridges and pavement.

2.15.2 Discussion of CEQA Question 2.15—Public Services

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, or other public facilities.

Construction of the bridges would be performed in a three-season crossover. In the first season, crossovers and widening would be constructed and beginning preparation work for the structures would be completed. In the second season, traffic would be moved onto the westbound side with two lanes in each direction. The eastbound bridge would be demolished and reconstructed. At the end of the season, traffic would be returned to two lanes of eastbound traffic on the eastbound lanes and two lanes of westbound traffic on westbound. In the third season, traffic would be moved to the eastbound lanes and the westbound bridge would be demolished and reconstructed. Once completed, the crossovers would be demolished, and traffic would return to normal. No schools, parks, or other public facilities were identified in the project area; therefore, service ratios would not be impacted. During construction, the eastbound 20 to westbound 80 onramp would be closed and a detour made available to Eagle Lakes road, approximately three miles down the road. In order to maintain acceptable service ratios and emergency response times for fire and police protection during construction, Caltrans would implement the avoidance and minimization measures listed below.

2.15.3 Avoidance and Minimization Measures

To minimize any impacts to service ratios and response times of public services during construction, Caltrans would adhere to the following measures.

- Lane and shoulder closures on I-80 would be performed in accordance with Standard Plan Sheet T10, during off-peak and nighttime hours between Memorial Day and Labor Day, and during daytime hours between Labor Day and Memorial Day.
- The use of stage construction K-rail with gawk screen is recommended to allow for daylight operations and roadway utilization by the public and to minimize lane closures.
- No lane closures, shoulder closures, or other traffic restrictions would be allowed on special days including the "Hot August Nights" event, designated holidays and the day preceding designated holidays, and when construction operations are not actively in progress.
- Coordinating with adjacent projects within, or nearby the project limits would be required to avoid conflicts during construction among various projects on I-80.
- Work at this location may require the assistance of Construction Zone Enhanced Enforcement Program but not a full-time presence.
- Portable changeable message signs would be required in the direction of traffic during construction for each lane or shoulder closure and must be placed seven days prior to any closure.

Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.16 Recreation

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. The proposed project would not increase the use of existing neighborhood parks, regional parks, or other recreational facilities or require the construction or expansion of these recreational facilities. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.17 Transportation and Traffic

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the traffic Management Plan Data Sheet (Caltrans 2021g). The proposed project would not conflict with transit ordinance or policy. The proposed project would not change the existing configuration of the roadway and there would not be an additional lane or truck climbing lane added, therefore the project would not increase in capacity and vehicle miles traveled. The project results would not increase hazards due to design features or negatively affect emergency services. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.18 Tribal Cultural Resources

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, or 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 § 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the Historical Property Survey Report (Caltrans 2021b). Consultation with the Native American Heritage Commission and Native American Tribes, Groups, and Individuals was conducted by the District Native American Coordinator (DNAC), Dr. Lisa Bright. In addition, letters and project information was sent to local historical societies, including the Western Nevada County Historical Society. None of the responding tribes knew of any cultural resources in the project area or had any additional concerns. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.19 Utilities and Service Systems

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

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project. Potential impacts are not anticipated due to the fact that the proposed project would not require the relocation or newly constructed utilities. Based on the determinations made

in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.20 Wildfire

Question	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project: a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓
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 may result in temporary or ongoing impacts to the environment?				✓
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				✓

"No Impact" determinations in this section are based on the scope, description, and location of the proposed project, as well as the CalFire Hazard Severity Zone map (CALFIRE 2020) and the California Landside Inventory map (CDC 2019). The proposed project is in a high fire hazard severity zone in a federal responsibility area. The project would not impair an adopted emergency response plan since the two lanes in both eastbound and westbound would be redirected during construction but would remain open. The eastbound 20 to 80 westbound onramps would be closed during construction, but a detour to Eagle Lakes road, approximately 3 miles down the road, would be open that would not impar an emergency response plan or evacuation plan. The project is not located in an area of high landslide

risk, so no impact is anticipated from fire relates landslides. The project would comply with all regulations and not expose people or structures to fire related flooding. Based on the determinations made in the CEQA Environmental Checklist, mitigation measures have not been proposed for the project.

2.21 Mandatory Findings of Significance

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

2.21.1 Discussion of CEQA Question 2.21—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?

Construction of the proposed project would result in approximately 0.06 acre of permanent impacts to Waters of the U.S. and 0.01 acre of impacts to wetlands. These impacts could be considered temporary depending on the construction method chosen. The construction of the project would impact 0.07 acre of permanent impacts to the unnamed stream within the project limits and would require clear water diversion. If the clear water diversion is removed post-construction, on-site revegetation would be conducted post-construction. Because of the relatively small area the proposed project would affect, the impact would be less than significant.

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

The proposed project does not have impacts that are cumulatively considerable when viewed with the effects of past and future projects.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project does not have environmental effects which would cause substantial adverse effects to human beings.

2.21.2 Conclusion

Caltrans has determined the proposed project would adversely affect 0.06 acre of permanent impacts to waters of the U.S., 0.01 acre of impacts to wetlands, and 0.07 acre of permanent impacts to the unnamed stream. Caltrans proposes to compensate for adverse effects through the participation in the USACE's in-lieu fee program to ensure no net loss of aquatic habitat functions and values. Caltrans would create a restoration plan prior to vegetation removal to compensate for the affects due to the clear water diversion. While these impacts have been found to be less than significant, Caltrans would implement the avoidance and minimization measures outlined in this document to further reduce impacts.

Chapter 3 List of Preparers

The following individuals performed the environmental work on the project:

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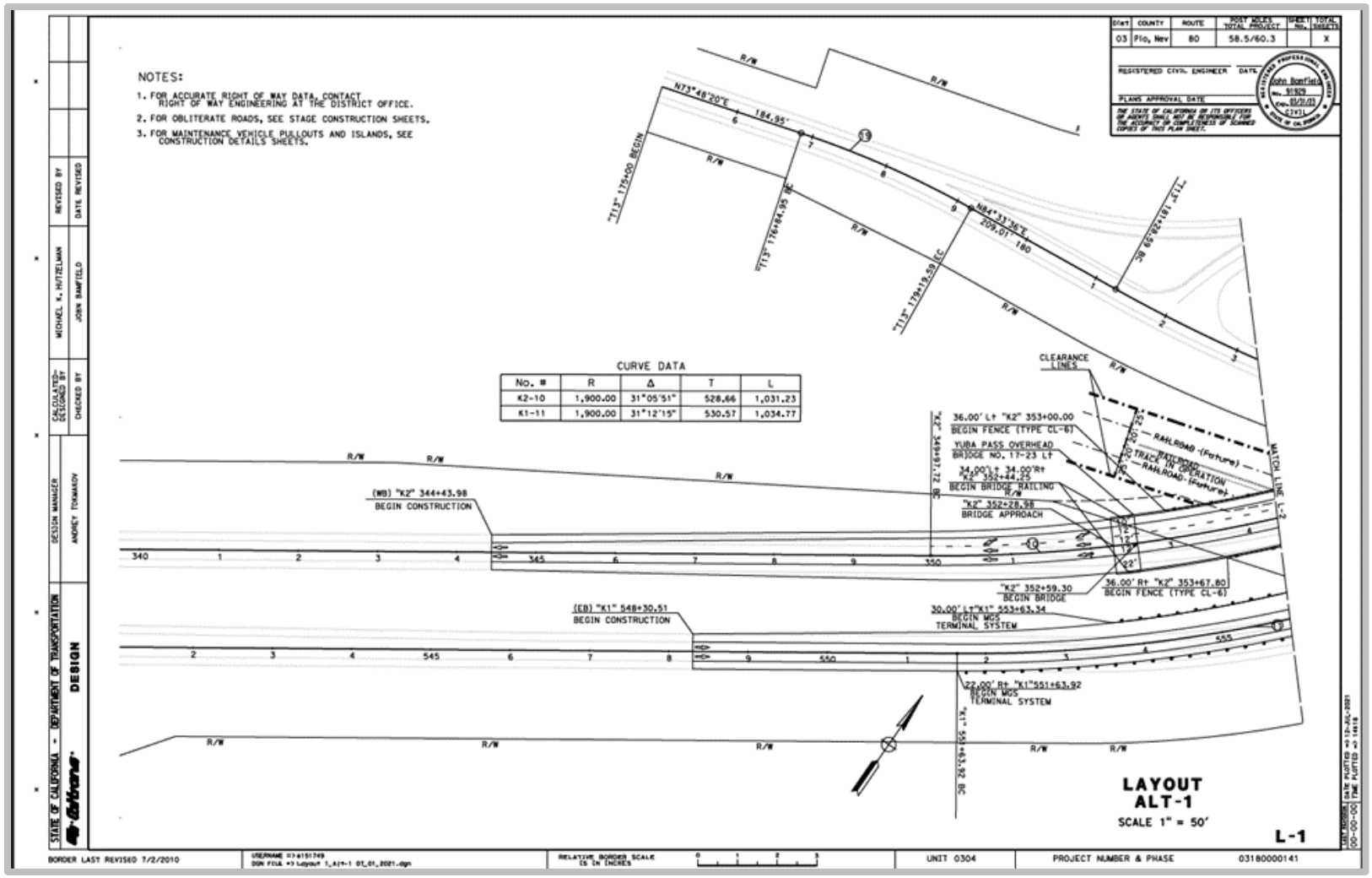
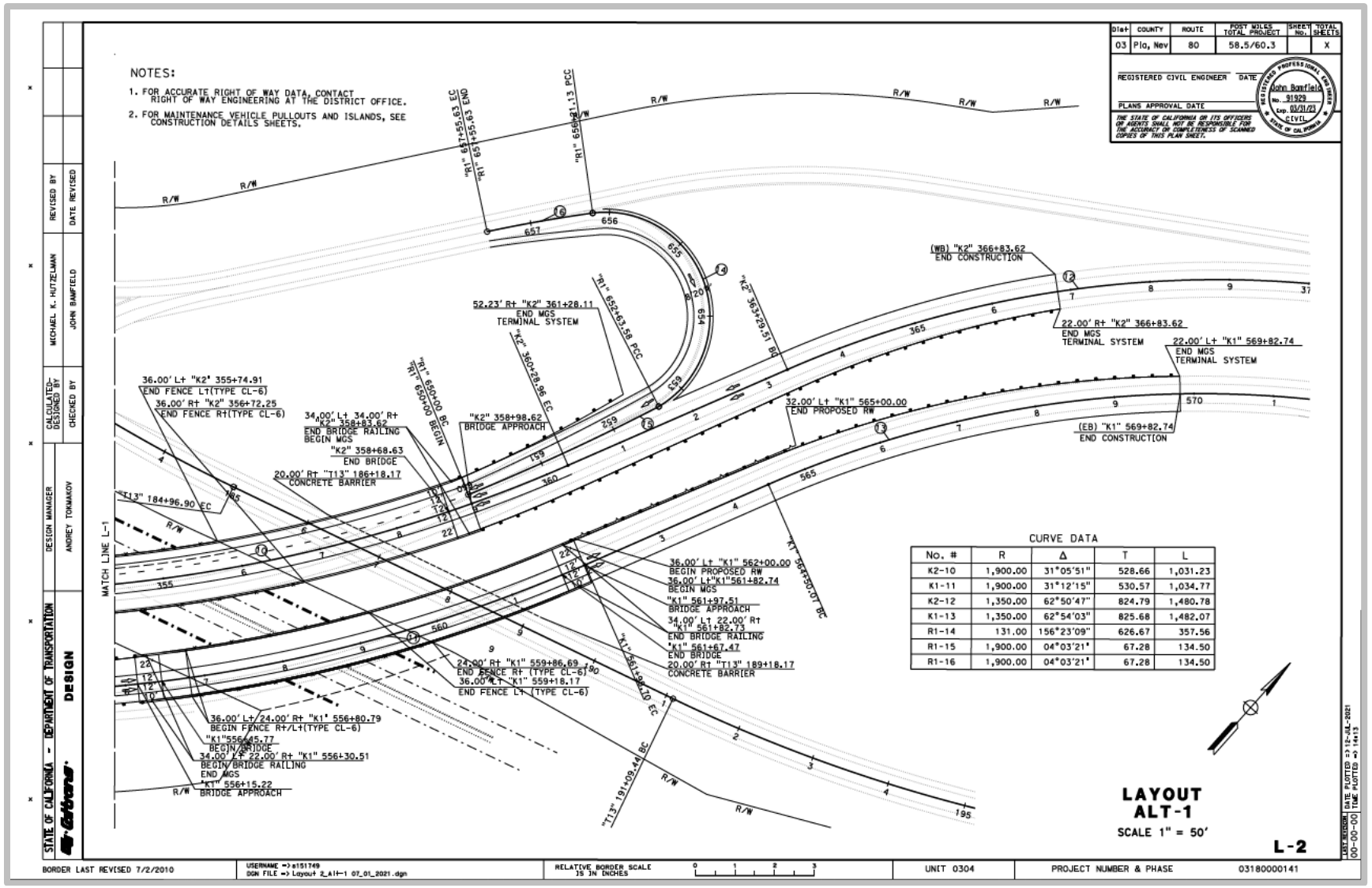
Appendix A Project Layouts

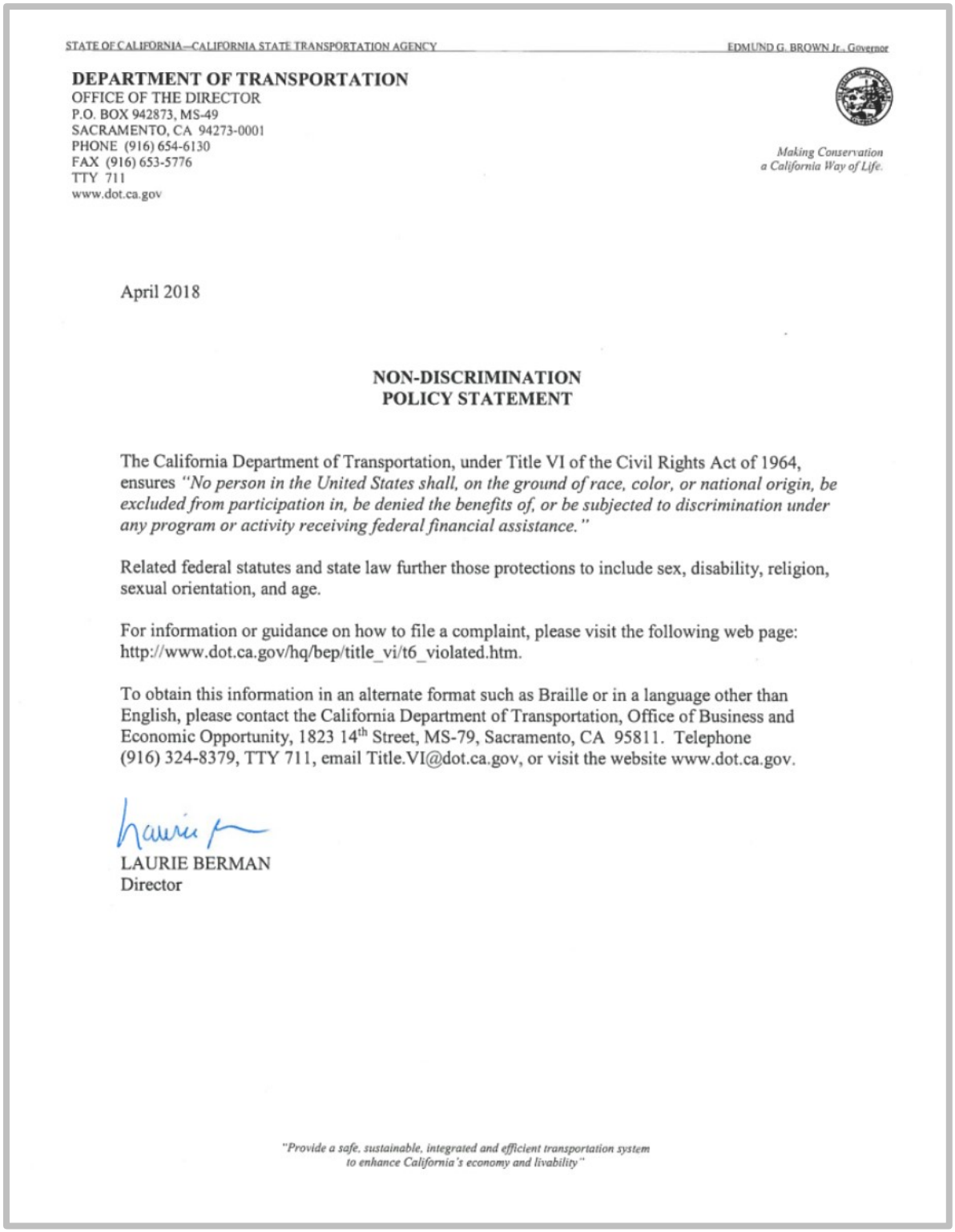


Appx. A Figure 1



Appx. A Figure 2

Appendix B Title VI Policy Statement



STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

April 2018

NON-DISCRIMINATION POLICY STATEMENT

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."*

Related federal statutes and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone (916) 324-8379, TTY 711, email Title.VI@dot.ca.gov, or visit the website www.dot.ca.gov.

LAURIE BERMAN
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Appx. B Figure 1

Appendix C Species List

Plant Species Observed Within the BSA on June 3, 2021	
Botanical Name	**Common Name**
Abies concolor	White Fir
Achillea millefolium	Yarrow
Acmispon americanus	Bird's foot trefoil
Aconogonon phytolaccifolium	Pokeweed knotweed
Agrostis stolonifera	Redtop
Alnus incana	Creek alder
Artemisia douglasiana	Mugwort
Athyrium sp.	Lady fern
Avena fatua	Wild oats
Brassica nigra	Black mustard
Bromus hordeaceus	Soft chess
Calocedrus decurrens	Incense cedar
Calyptridium umbellatum	Pussy toes
Carduus pycnocephalus	Italian thistle
Carex subfusca	Brown sedge
Centaurea solstitialis	Yellow star thistle
Centaurea stoebe	Spotted knapweed
Chaenactis douglasii	Pincushion
Cornus sericia	American dogwood
Cryptantha affinis	Common cryptantha
Dactylis glomerata	Orchard grass
Danthonia californica	California oat grass
Deschampsia sp	Hairgrass
Diplacus sp.	Monkey flower
Elymus elymoides	Squirrel tail grass
Equisetum arvense	Common horsetail
Eriogonum nudum	Naked buckwheat
Erythranthe guttata	Yellow monkey flower
Frangula purshiana	Cascara buckthorn
Holodiscus discolor	Cream bush
Juncus nevadensis	Sierra rush
Lepidium sp.	Pepperweed
Leptosiphon ciliatus	Whiskerbrush
Melilotus albus	White sweetclover
Navarretia divericata	Mountain navarretia
Pellaea bridgesii	Bridges' cliffbrake
Pinus lambertiana	Sugar pine
Pinus Ponderosa	Ponderosa pine
Plantago lanceolata	Narrow leaved plantain
Poa secunda	Pine bluegrass
Populus nigra	Black poplar
Prunus emarginata	Bitter cherry

Pseudognaphalium sp.	Cudweed
Pteridium aquilinum	Western bracken fern
Quercus kelloggi	California black oak
Ribes roezlii	Sierra gooseberry
Nasturtium officinale	Watercress
Rosa bridgesii	Wood rose
Rubus parviflorus	Thimbleberry
Rumex acetosella	Sheep sorrel
Salix lemmonii	Lemmon's willow
Sambucus sp.	Elderberry
Schoenoplectus subterminalis	Swaying bulrush
Sidalcea glaucescens	Glaucous checker mallow
Spiraea splendens	Rose meadowsweet
Stipa occidentalis	Needle grass
Tragopogon dubius	Goat's beard
Typha sp.	Cattail
Verbascum thapsus	Woolly mullein

Quad Name **Cisco Grove**
Quad Number **39120-C5**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - X
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Inventory of Rare and Endangered Plants of California

CALIFORNIA NATIVE PLANT SOCIETY

HOME ABOUT CHANGES REVIEW HELP

Search: Simple Advanced

Search for species and Go

Search Results

Back Export Results

17 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912035]

Scientific Name | Common Name | Family | Lifeform | Blooming Period | Fed List | State List | Global Rank | State Rank | CA Rare Plant Rank | General Habitats | Micro Habitats | Lowest Elevation | Highest Elevation | CA Endemic | Date Added | Photo

Search:

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Botrychium crenulatum	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	None	None	G4	S3	2B.2	 © 2016 Steve Matson
Brasenia schreberi	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	None	None	G5	S3	2B.3	No Photo Available
Bulbostylis capillaris	thread-leaved beaksedge	Cyperaceae	annual herb	Jun-Aug	None	None	G5	S3	4.2	No Photo Available
Carex lasiocarpa	woolly-fruited sedge	Cyperaceae	perennial rhizomatous herb	Jun-Jul	None	None	G5	S2	2B.3	 © 2011 Sierra Pacific Industries
Carex limosa	mud sedge	Cyperaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S3	2B.2	 Steve Matson 2009
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	(Apr) May-Jul	None	None	G4	S4	4.3	No Photo Available
Darlingtonia californica	California pitcherplant	Sarraceniaceae	perennial rhizomatous herb (carnivorous)	Apr-Aug	None	None	G4	S4	4.2	 © 2021 Scot

▲ SCIENTIFIC	COMMON			BLOOMING	FED	STATE	GLOBAL	STATE	CA RARE PLANT	Loring PHOTO
[illegible]	[illegible]ed daisy	[illegible]ceae	[illegible] herb	[illegible]	None	None	[illegible]	[illegible]	[illegible]	No Photo Available
Lewisia kelloggii ssp. hutchisonii	Hutchison's lewisia	Montiaceae	perennial herb	(Apr) May-Aug	None	None	G3G4T3Q	S3	3.2	 Dean Wm. Taylor 2006
Lycopus uniflorus	northern bugleweed	Lamiaceae	perennial herb	Jul-Sep	None	None	G5	S4	4.3	 © 2021 Scot Loring
Phacelia stebbinsii	Stebbins' phacelia	Hydrophyllaceae	annual herb	May-Jul	None	None	G3	S3	1B.2	No Photo Available
Potamogeton epihydrus	Nuttall's ribbon-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	(Jun) Jul-Sep	None	None	G5	S2S3	2B.2	 Louis-M. Landry, 2010
Rhamnus alnifolia	alder buckthorn	Rhamnaceae	perennial deciduous shrub	May-Jul	None	None	G5	S3	2B.2	No Photo Available
Rhynchospora alba	white beaked-rush	Cyperaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S2	2B.2	 © 2021 Scot Loring
Schoenoplectus subterminalis	water bulrush	Cyperaceae	perennial rhizomatous herb (aquatic)	Jun-Aug(Sep)	None	None	G4G5	S3	2B.3	 Dean Wm. Taylor (1996)
Sparganium natans	small bur-reed	Typhaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5	S3	4.3	No Photo Available
Viola tomentosa	felt-leaved violet	Violaceae	perennial herb	(Apr) May-Oct	None	None	G3	S3	4.2	No Photo Available

Showing 1 to 17 of 17 entries

CONTACT US

Send questions and comments to rareplants@cnps.org.

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CONTRIBUTORS

The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project

Developed by

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Cisco Grove (3912035))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ambystoma macrodactylum sigillatum southern long-toed salamander	AAAAA01085	None	None	G5T4	S3	SSC
Botrychium crenulatum scalloped moonwort	PPOPH010L0	None	None	G4	S3	2B.2
Brasenia schreberi watershield	PDCAB01010	None	None	G5	S3	2B.3
Carex lasiocarpa woolly-fruited sedge	PMCYP03720	None	None	G5	S2	2B.3
Carex limosa mud sedge	PMCYP037K0	None	None	G5	S3	2B.2
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Erigeron miser starved daisy	PDAST3M2K0	None	None	G3?	S3?	1B.3
Gulo gulo California wolverine	AMAJF03010	None	Threatened	G4	S1	FP
Lepus americanus tahoensis Sierra Nevada snowshoe hare	AMAEB03012	None	None	G5T3T4Q	S2	SSC
Martes caurina sierrae Sierra marten	AMAJF01014	None	None	G4G5T3	S3	
Phacelia stebbinsii Stebbins' phacelia	PDHYD0C4D0	None	None	G3	S3	1B.2
Rana sierrae Sierra Nevada yellow-legged frog	AAABH01340	Endangered	Threatened	G1	S1	WL
Rhamnus alnifolia alder buckthorn	PDRHA0C010	None	None	G5	S3	2B.2
Rhynchospora alba white beaked-rush	PMCYP0N010	None	None	G5	S2	2B.2
Schoenoplectus subterminalis water bulrush	PMCYP0Q1G0	None	None	G4G5	S3	2B.3

Record Count: 15

Government Version – Dated September, 3 2021 -- Biogeographic Data Branch

Report Printed on Thursday, September 30, 2021

Page 1 of 1

Information Expires 3/3/2022

IPaC U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Nevada County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Sierra Nevada Yellow-legged Frog Rana sierrae — Endangered
Wherever found
There is final critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/9529

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found *There is final critical habitat for this species. The location of the* critical habitat is not available. http://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. http://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Black-throated Gray Warbler *Dendroica nigrescens* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jul 20

Cassin's Finch Carpodacus cassinii — Breeds May 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/9462

Evening Grosbeak Coccothraustes vespertinus — Breeds May 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/3914

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Cassin's Finch BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Evening Grosbeak BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Olive-sided Flycatcher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix D Response to Comments