

**Esplanade Corridor Safety and Accessibility
Improvement Project
City of Chico Capital Improvement Project No. 50355**

Natural Environment Study
(Minimal Impacts)

City of Chico, Butte County, California
Sections 22 and 27, of Township 22 North, Range 1 East
Chico, California, USGS 7.5-minute topographic map
ATPCML-5037(037)

STATE OF CALIFORNIA
Department of Transportation
City of Chico

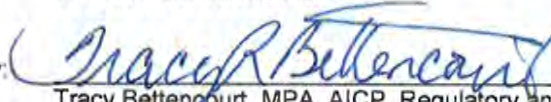
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Summary

The City of Chico, in coordination with the California Department of Transportation District 3 (Caltrans), propose to conduct mobility, connectivity, safety, and accessibility improvements for roadway users of all ages and abilities, including automobiles, trucks, buses, and other large vehicles, bicyclists, and pedestrians (project). The City's primary goal is to incorporate "complete streets" features and provide safer connectivity for all users between the downtown and local destinations along the corridor. The proposed project is located along an approximate 1.25-mile segment of the Esplanade and Oleander Avenue corridors. The project is in the "Chico, CA" United States Geological Survey (USGS) Quadrangle (Quad), Sections 22 and 27, of Township 22 North, Range 1 East (Figures 1 and 2).

This Natural Environment Study-Minimal Impacts [NES (MI)] has been prepared to support the preparation of environmental documents in accordance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). The NES (MI) results are based on literature reviewed, agency database inquiries, and preliminary biological resource surveys conducted in 2018 and 2019.

The project area is dominated by urban influenced habitats with no quality native habitats. As a result, limited suitable habitat exists for special status plant and wildlife species. A variety of tree species occur within the project area including 17 trees requiring removal during project activity. Trees within the project area provide potential nesting, roosting, and foraging habitat for sensitive bird and bat species.

A 9-quad query of California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB 2019; Appendix A) and a U.S Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC 2019; Appendix B) review of the project area was conducted and evaluated. Based on the results, several special status bird and bat species have the potential to occur within the project area. No sensitive plant communities, jurisdictional waters of the U.S., or designated USFWS Critical Habitat exists within the project area. No special status plant or wildlife species, jurisdictional waters, or sensitive habitats were observed during preliminary biological resource surveys. A combination of avoidance and minimization measures (AMM) were developed to reduce the impacts to potential biological resources within the project area.

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Chapter 1 – Introduction

The City of Chico, in coordination with Caltrans, proposes to conduct mobility, connectivity, safety, and accessibility improvements along an approximate 1.25-mile segment of both the Esplanade and Oleander Avenue in the city.

Project History

Purpose and Need

The purpose of the project is to enhance mobility, connectivity, safety, and accessibility for roadway users of all ages and abilities, including automobiles, trucks, buses, and other large vehicles, bicyclists, and pedestrians, on the Esplanade from Memorial Way to 11th Avenue in Chico. The City's primary goal is to incorporate "complete streets" features and provide safer connectivity for all users between the downtown and destinations along the corridor.

The project is needed due to multi-modal operational deficiencies and lack of sufficient facilities for pedestrian and bicycle travel modes on the Esplanade, and the parallel roadway, Oleander Avenue. Currently, no facilities, signage, or pavement markings are provided for bicycle riders on the complex Esplanade boulevard or frontage roads. Car/bicycle collision rates are extremely high. Pedestrians have no pedestrian signal crossings indicators, compounded by a signal system which does not provide the minimum crossing time needed. Curb ramps are installed at marked crosswalk locations with sidewalks, but the ramp designs do not meet current Americans with Disabilities Act (ADA) design requirements. There are substantial gaps in the sidewalk on the east side frontage road of the Esplanade between 8th and 11th Avenues, and in various locations on Oleander Avenue, as well as East 10th Avenue.

Project Description

Project Location

The proposed project is located along an approximate 1.25-mile segment of the Esplanade within the city of Chico between Memorial Way and East 11th Avenue, along Oleander Avenue between Memorial Way and East 10th Avenue, along East 10th Avenue between Esplanade and Oleander Avenue, and along Memorial Way between Esplanade and approximately 0.06 miles (335 feet) east of the Memorial Way and Oleander Avenue intersection. The project is in the "Chico, CA" USGS Quadrangle, Sections 22 and 27, of Township 22 North, Range 1 East. See Figure 1 and 2.

Project Description

The City of Chico proposes to create a separated and paved Class I multi-use bicycle/pedestrian path along the Esplanade corridor, connecting downtown; California State University, Chico; Chico Junior and Senior High Schools; a regional hospital; and neighborhoods adjacent to the existing Airport Class I multi-use path at 11th Avenue. The parallel street to the east of the Esplanade, Oleander Avenue, would receive signage, sidewalk, signal, and stop control improvements between 10th Avenue and Memorial Way. A roundabout would be installed at the intersection of Oleander Avenue and Memorial Way adjacent to Chico Junior High School. Two traffic signals are proposed to be installed at the intersections of Oleander Avenue/1st Avenue and West Sacramento Avenue/Esplanade.

Existing traffic signals would be outfitted with pedestrian signal crossing equipment (now absent), updated detection equipment, an associated traffic signal timing plan to accommodate the added pedestrian phases, and pedestrian refuge islands where applicable. Appropriate American with Disabilities ramps and sidewalks would be added.

The proposed non-motorized “complete streets” improvements along the Esplanade corridor and on Oleander Avenue are listed in more detail in the sections below.

Pedestrian Improvements

- Install new pedestrian countdown crossing signal heads and pedestrian push button activation at all existing traffic signals on the Esplanade with sufficient crossing timing that meets Federal guidelines.
- Add vehicle detection as necessary replacing timed signalization with an on-demand detection system.
- Provide adequate pedestrian crossing refuge islands at unsignalized intersections on the Esplanade.
- Consistently mark pedestrian crosswalks at all crossing locations.
- Prepare enhanced signal timing plan to respond to vehicles, bikes and pedestrian needs.
- Maintain signal progression on the Esplanade during off-peak hours

ADA Improvements

- Improve connection to the 11th Avenue Airport Class I multi-use path with adequate walkway and ramps, on the southwest, southeast and northeast corner of the intersection.

- Install ADA accessible curb ramps at all crosswalk locations.
- Install missing sidewalks at identified gap closure locations

Bicycle Facility Improvements

- Install paved Class I multi-use bicycle/pedestrian path on old rail right-of-way (east side) with appropriate safety crossing measures.
- Discourage wrong-way riders on the west side frontage road by adding a shared space pavement design to slow vehicle and bicycle traffic through conflict zones.
- Add marked bicycle route on Oleander Avenue which favors minimal stopping except at 1st Avenue and 5th Avenue.
- Install traffic signals at West Sacramento Avenue/Esplanade and Oleander Avenue/1st Avenue with bike crossing emphasis.

Junior High School Area Improvements

- Change intersection design at Memorial Way/Oleander Avenue (near Chico Junior High School) to a single-lane roundabout.

General Vehicle Guidance Improvements

- Provide clear and consistent pavement markings at frontage road intersection areas.
- Create the shared space area at crossings of the east-west streets and frontage roads.
- Install traffic signal indications guiding cross traffic to stop “outside” of the frontage road where appropriate.

11th Avenue Connection Improvements

- Enhance connections between the 11th Avenue and the Airport Class I Multi-use path.

Other Amenities

- Install pedestrian-scale lighting in the form of full cutoff, energy-efficient LED fixtures restricted to illuminate pathways in order to minimize light “spill over” to adjacent properties.
- Install replacement landscaping within the project footprint.

Typical Signalized Intersection

- Provide a Class I multi-use path in the eastern median.
- Provide textured “mixing zone” at the intersection of southbound frontage and east-west cross streets.
- Eliminate northbound right-turn pocket, where applicable.
- Provide pedestrian refuge islands on medians.
- Update signal timing with adequate crossing time in the east-west directions.
- Refresh striping and add crosswalks, where applicable.

Typical Unsignalized Intersection

- Provide a Class I multi-use path in the eastern median.
- Provide textured “mixing zone” at the intersection of southbound frontage and east-west cross streets.
- Provide pedestrian refuge islands on medians.
- Refresh striping and add crosswalks, where applicable.

ROW Acquisition and Temporary Construction Easements

To construct the roundabout at the intersection of Memorial Way and Oleander Avenue, both temporary (1,200 square feet) and permanent (1,400 square feet) acquisition is needed from undeveloped land on a parcel containing several Butte County department offices (APN 003-180-022). Temporary and permanent acquisitions would be from a small portion of undeveloped land at the northwest corner of the intersection, away from structures, trees, and other parcel features.

Construction and Schedule

The project would be constructed in one phase. It is currently anticipated that the proposed improvements would be constructed over an approximate 9-month period starting in early Spring of 2022.

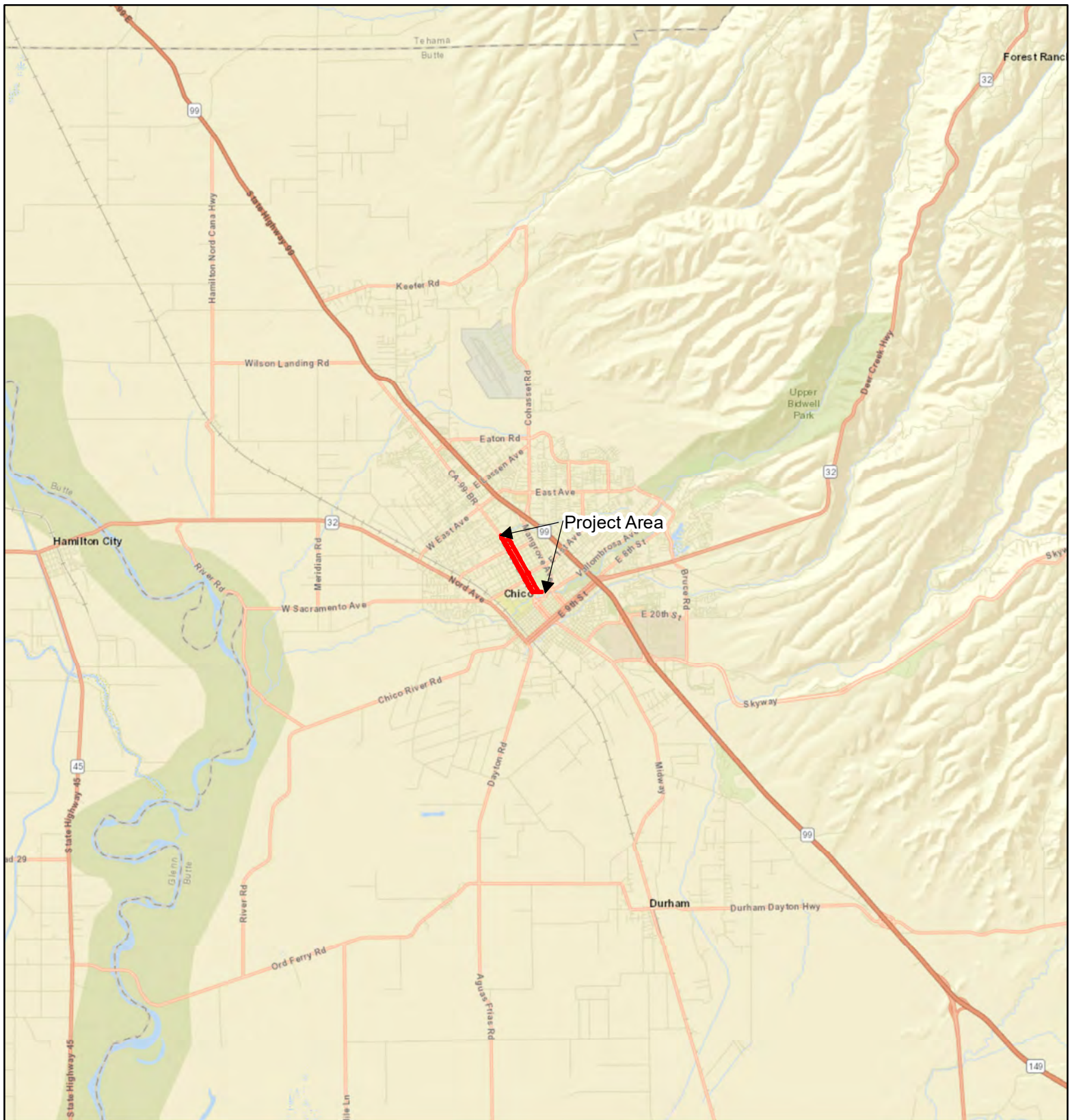
Typical construction equipment would include pneumatic jack hammers, excavators, grading equipment, paving equipment, concrete equipment, striping equipment, generators, or other similar devices. The maximum grading and excavation depth needed for most of the project is approximately 3 inches. However, for the roundabout excavation depths of 3 to 4 feet may be necessary. All construction noise would be temporary and subject to the noise limits in the Chico Municipal Code, Chapter 9.38 Noise Ordinance, which regulates noise generation within the City of Chico. Construction

activity noise is typically restricted to the hours of 7:00 a.m. to 9:00 p.m. on weekdays (10:00 a.m. to 6:00 p.m. on weekends and holidays), unless otherwise approved by the City Engineer. No night or weekend work is anticipated for the proposed project.

Traffic Management

A traffic management plan would be developed and implemented during construction in accordance with Caltrans' 2018 Standard Specifications and in compliance with the California Manual on Uniform Traffic Control Devices, Part 6, and "Temporary Traffic Control". The Esplanade and Oleander Avenue would remain open during construction; however, the project would temporarily impact traffic patterns with on-site traffic controls (e.g., flagging, pilot car) and episodic, temporary single-lane traffic closures. The proposed project would not permanently close roadways or block access to private or commercial properties.

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Project Area

0 1.25 2.5 5 Miles
1 inch = 2.5 miles



Figure 1 - Project Area Location

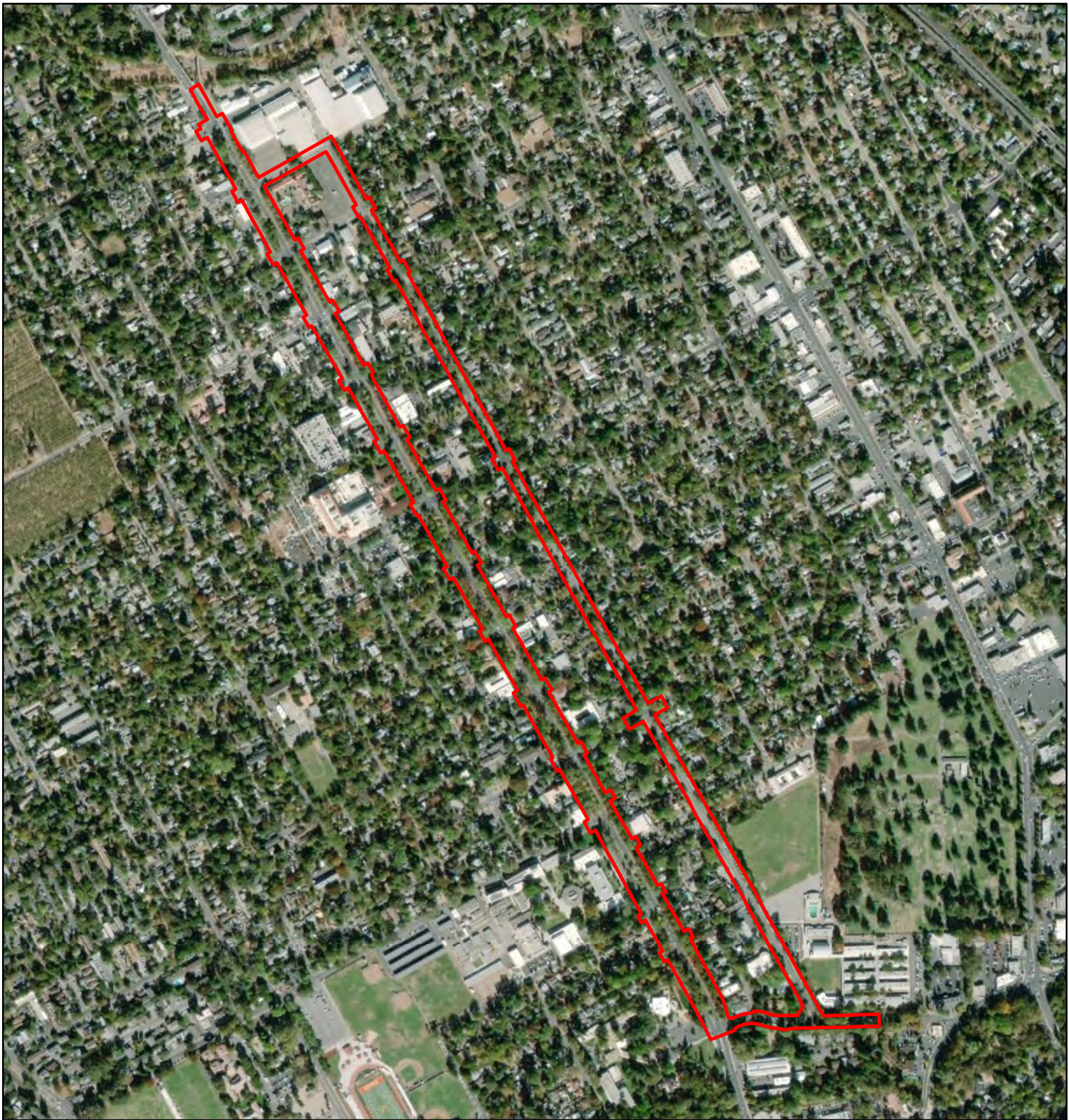
NES (MI) Esplanade Corridor Safety and Accessibility Project

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 Project Area

0 400 800 1,600 Feet
1 inch = 800 feet

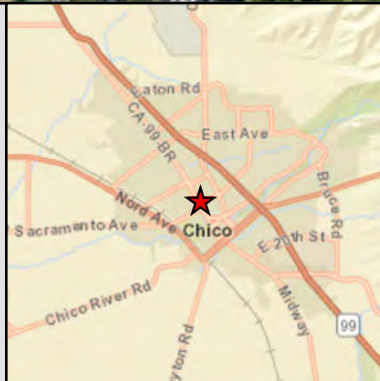


Figure 2 - Project Area

NES (MI) Esplanade Corridor Safety and Accessibility Project

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Chapter 2 – Study Methods

Regulatory Requirements

The federal regulatory requirements and laws that may apply to the proposed project include:

- Federal Endangered Species Act
- Migratory Bird Treaty Act
- Executive Order 13112 – Invasive Species

Applicable state laws and regulations include:

- California Endangered Species Act
- Native Plant Protection Act
- California Fish and Game Code (e.g., 3503, 3503.5, 3504, 3505, 3513)

A brief description of each of the relevant laws and regulations is provided below.

Federal Endangered Species Act. Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce, jointly have the authority to list a species as threatened or endangered (16 United States Code [USC] 1533[c]). FESA defines “endangered” species as those in danger of extinction throughout all or a significant portion of their range. A “threatened” species is any species that is likely to become an “endangered” species within the foreseeable future throughout all, or a significant portion of its range. Additional special-status species include “candidate” species and “species of concern.” “Candidate” species are those for which the U.S. Fish and Wildlife Service (USFWS) has on file enough information to propose listing as endangered or threatened. “Species of concern” are those for which listing is possibly appropriate, but where the USFWS lacks sufficient information to support a listing proposal. A species that has been “delisted” is one whose population has met its recovery goal target and is no longer in jeopardy of extinction.

Section 7 of FESA requires formal consultation with the USFWS or National Marine Fisheries Service (NMFS) for only those species listed as endangered, threatened or proposed for threatened or endangered. Taking of a federally listed species is prohibited under Section 9 of FESA. Taking is defined by FESA [Section 3(19)] to mean “to harass, harm, pursue, hunt, shoot, Natural Environment Survey (Minimal Impact) SR 99/Eaton Interchange Improvements 16 May 2019 wound, kill, trap, capture, or collect, or attempt

to engage in any such conduct.” An incidental take of a listed species requires consultation with the USFWS or NMFS.

Federally listed species may be addressed for a proposed project in one of two ways: (1) a nonfederal government entity may resolve potential adverse impacts to species protected under Section 10 of FESA, or (2) a federal lead agency may resolve potential adverse effects to listed species in accordance with Section 7 of FESA. Both require consultation with the USFWS or NMFS, which administers the Act and ultimately issues a final opinion determining whether a project is likely to adversely affect or jeopardize the continued existence of a federally listed species, or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3],[4]).

Migratory Bird Treaty Act. The Migratory Bird Treaty Act (MBTA) of 1918 (16 United States Code 703-711) is an international treaty for the conservation and management of bird species that may migrate through more than one country. It is enforced in the United States by the USFWS, and makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered a “take” and is potentially punishable by fines and/or imprisonment. In 1972, the MBTA was amended to include protection for migratory birds of prey (raptors). All species and subspecies of the families listed above are protected under the provisions of the 1972 amendment

Executive Order 13112 – Invasive Species. On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive plants that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

Under the E.O., federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

California Endangered Species Act and Native Plant Protection Act. The California Endangered Species Act (CESA) and the Native Plant Protection Act authorizes the California Fish and Game Commission to designate endangered, threatened, and rare species and to regulate the taking of these species (§2050-2098, Fish & Game Code). CESA defines “endangered” species as those whose continued existence in California is jeopardized. State listed “threatened” species are those not presently threatened with extinction, however may become endangered if their environments change or deteriorate. Protection of special-status species is detailed in Sections 2050 and 2098 of the Fish and Game Code. The California Code of Regulations (Title 14, Section 670.5) lists animal species considered endangered and threatened by the State. Formal consultation must be initiated with the California Department of Fish and Wildlife (CDFW) for projects that may have an adverse effect on a state-listed species. If no state listed species will be affected by a proposed project, environmental documentation is provided to the CDFW at the discretion of the lead agency.

Section 2080 of the California Fish and Game Code prohibits the taking of state listed plant and animals. The CDFW also designates “fully protected” or “protected” species as those that may not be taken or possessed without a permit from the Fish and Game Commission and/or the CDFW. Species designated as fully protected or protected may or may not be listed as endangered or threatened.

CDFW’s Natural Heritage Division administers the State’s endangered species program. CDFW’s implementation of the CESA has created a program that is similar in structure to, but different in detail from, the USFWS program implementing the federal ESA.

The CDFW maintains a list of designated endangered, threatened, and rare plant and animal species. Listed species are either designated under the Native Plant Protection Act, or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFW can afford interim protection to candidate species while they are reviewed by the Fish and Game Commission.

The CDFW also maintains a list of animal “Species of Special Concern,” most of which are species whose breeding populations in California may face extirpation. Although these species have no legal status, the CDFW recommends consideration of them during analysis of the impacts of proposed projects to protect declining populations and avoid the need to list them as endangered in the future.

Under provisions of Section 15380(d) of CEQA, the project lead agency and CDFW, in making a determination of significance, must treat non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFW considers species on Lists 1A, 1B, or 2 of the California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California

(Skinner and Pavlik 1994) as qualifying for consideration under this CEQA provision. Species on the Native Plant Society's List 3 or 4 may, but generally do not, qualify for protection under this provision.

California Fish and Game Code (e.g., 3503, 3503.5, 3504, 3505, 3513)

- 3503. It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.
- 3503.5. It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.
- 3504. Subject to the provisions of this code permitting the sale of domestically raised game birds, it is unlawful to sell or purchase a game bird or nongame bird.
- 3505. It is unlawful to take, sell, or purchase any egret, osprey, bird of paradise, gaur, numidi, or any part of such a bird.
- 3513. It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.

Studies Required

Literature Search

Prior to conducting field surveys, literature and databases relevant to the project area were reviewed including CNDDDB (CNDDDB 2019), CNPS On-Line Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019), and USFWS IPaC (USFWS 2019) database queries. These queries were conducted for the Chico USGS 7.5-Minute topographic quadrangle and the eight adjacent surrounding quadrangles including: Nord, Richardson Springs, Paradise West, Ord Ferry, Chico, Hamlin Canyon, Llano Seco, Nelson, and Shippee. Current versions of the official species list results are provided in Appendices A and B.

Field Reviews and Survey Methods

A preliminary biological survey and report was completed to assess project impacts to common and special-status species, their habitats, and aquatic resources. The survey was conducted on December 17, 2018 and January 3, 2019 by Tehama Environmental

Solutions, Inc. (TES) by completing pedestrian surveys of the project limits and adjacent properties. Sensitive biological resources were documented, analyzed, and reported. The biological review report is located in Appendix C.

An additional tree survey was conducted within the project area June 19, 2019 by Burleson Consulting, Inc. The pedestrian survey objective was to document and tag all trees identified for removal and inspect the trees for biological resources (nests). The biological resource survey results are located in Appendix D.

Chapter 3 – Results: Environmental Setting

Description of the Existing Biological and Physical Conditions

Study Area

The project area is located within an urban mosaic, comprised primarily of heavily anthropogenically influenced habitats associated with roadways, residential, and commercial and public infrastructure. Land use within the project area is dominated by transportation infrastructure intermixed with commercial and residential development in all directions and interspersed with disturbed open parcels. Due to the presence of heavy vehicular traffic and development, the project area is consistently exposed to noise, light, dust, emissions, and roadway maintenance activities. As a consequence, no quality native habitats occur within the project area. Vegetated areas are dominated by ornamental landscaping including trees, non-native grasses, weeds, and shrubs. During the biological survey on June 19 2019, one elderberry shrub was observed, approximately 200 feet outside of the project boundary near Sandy Gulch. No active bird nests were observed.

Physical Conditions

Climate

The project area is located within the central valley of California, which is characterized by a Mediterranean climate with hot, dry summers, and cool, wet winters

Topography

According to the USGS Topographic map reviewed for the project area, the elevation of the target property is approximately 195 to 200 feet above mean sea level. Topographic maps reviewed indicate the site has a general gradient to the southwest.

Soil

The soil types expected within the project corridor were obtained from the United States Department of Agriculture Natural Resource Conservation Service (NRCS 2019) and are described below.

Almendra loam. Moderate infiltration rates. Deep, well drained soils with medium textures. The soil does not meet the requirements for a hydric soil. Soil texture class from 0-52 inches is expected to be loam; fine sandy loam from 52 to 86 inches.

Vina fine sandy loam. Moderate infiltration rates. Deep, well drained soils with moderately coarse textures. The soil does not meet the requirements for a hydric soil. Soil texture class from 0-11 inches is expected to be fine sandy loam; sandy loam from 11-50 inches; loamy coarse sand from 50-54 inches; and coarse sand from 54-80 inches.

Vegetation Communities

Two major vegetation community/land cover types were identified within the project area; developed/disturbed urban and ornamental.

Developed/disturbed urban land cover. Areas that have been subjected to various degrees of anthropogenic impacts. Developed areas have been altered for use as roads, housing, and commercial activities. Disturbed areas are typically non-vegetated or sparsely vegetated and often routinely disturbed.

Ornamental land cover. Contains landscaping with mostly non-native trees and shrubs that are regularly maintained. Common tree species occurring within the project area include California black walnut (*Juglans californica*), Sweetgum (*Liquidambar styraciflua*), and California sycamore (*Platanus racemose*).

Regional Species and Habitats and Natural Communities of Concern

Based on the database queries and preliminary biological surveys, special status plant and wildlife species were assessed and classified based on their potential to occur within the project area. Species were classified as either “not expected to occur”, “low potential to occur”, “potential to occur”, or “occur”. Species analyzed included threatened or endangered species under either the California or Federal Endangered Species Acts; candidates for either state or federal listing; species protected under Fish and Game Code of California; federal and CDFW “Species of Special Concern”; and CNPS Rank 1-2 plants.

The project area does not include any jurisdictional perennial or seasonal waters/wetlands and is dominated by urban and managed habitats. The project area does not contain any regional habitats of concern or USFWS designated Critical Habitat.

Table 1 includes lists of these special-status plant and wildlife species with both common and scientific names, listing status, general habitat description, habitat occurrence, recorded or potential occurrence within the project site, and rationale for determination.

Special-Status Plants

No special status plants, wildlife, or sensitive plant communities were observed during preliminary biological surveys. All special status plants identified in the database queries and literature review were determined to be absent due to a lack of suitable habitat within the project area. Several of the special-status plant species are associated with vernal pools, wetlands, or marshes, which do not occur within the project area. Other species occur in woodlands, forests, or chaparral habitats or occur within specific soil types such as clay, alkaline, or serpentine soil; these vegetation communities and soil types are not present within the project area.

Special-Status Wildlife

Based on database queries, literature reviewed, and preliminary surveys, all but eight of the special-status wildlife are not expected to occur in the project area due to a lack of suitable habitat within the project area, or the project area is outside of the species known range. Five special status bird and three special status bat species were classified as “low potential to occur” or “potential to occur”. Species classified as “low potential to occur” include American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), and Swainson’s hawk (*Buteo swainsoni*). Species classified as “potential to occur” include pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and Western red bat (*Lasiurus blossevillei*).

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

Common Name	Scientific Name	Listing Status (Federal/ State/CRPR)	General Habitat Description	Habitat Present/ Absent	Rationale
Plants					
adobe-lily	<i>Fritillaria pluriflora</i>	--/--1B.2	Perennial bulbiferous herb found in chaparral, cismontane woodland, valley and foothill grassland (often adobe).	A	Not expected to occur. Suitable habitat for this species is not present within or

Common Name	Scientific Name	Listing Status (Federal/ State/CRPR)	General Habitat Description	Habitat Present/ Absent	Rationale
			Elevation 550-640 meters. Blooms Feb-Apr.		adjacent to the project site
Ahart's buckwheat	<i>Eriogonum umbellatum</i> var. <i>ahartii</i>	--/--/1B.2	Perennial herb found in cismontane woodland, chaparral (serpentine, slopes, openings). Elevation 365-1,800 meters. Blooms Jun-Sep.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Ahart's paronychia	<i>Paronychia ahartii</i>	--/--/1B.1	Annual herb found in cismontane woodland, valley and foothill grassland, vernal pools. Elevation 30-450 meters. Blooms Feb-Jun.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
big-scale balsamroot	<i>Balsamorhiza macrolepis</i>	--/--/1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Sometimes serpentine areas. Perennial herb blooms March to June. Occurs between 30 – 2,200 meters.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Brazilian watermeal	<i>Wolffia brasiliensis</i>	--/--/2B.3	Perennial herb (aquatic) found in marshes and swamps (assorted shallow freshwater). Elevation 20-90 meters. Blooms Apr, Dec.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
brownish beaked-rush	<i>Rhynchospora capitellata</i>	--/--/2B.2	Perennial herb found in lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest (mesic). Elevation 40-1,800 meters. Blooms Jul-Aug	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Butte County checkerbloom	<i>Sidalcea robusta</i>	--/--/1B.2	Perennial rhizomatous herb found in chaparral, cismontane woodland. Elevation 80-1,400 meters. Blooms Apr-Jun	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Butte County golden clover	<i>Trifolium jokerstii</i>	--/--/1B.2	Annual herb found in valley and foothill grassland (mesic) and vernal pools. Elevation 50-480 meters. Blooms Mar-May	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Butte County meadowfoam	<i>Limnanthes floccosa</i> ssp. <i>californica</i>	FE/SE/1B.1	Annual herb found in valley and foothill grassland (mesic),	A	Not expected to occur. Suitable habitat for this

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
			vernal pools. Elevation 40-820 meters. Blooms Mar-May.		species is not present within or adjacent to the project site
California beaked-rush	<i>Rhynchospora californica</i>	--/--/1B.1	Perennial rhizomatous herb found in bogs and fens, lower montane coniferous forest, meadows and seeps (seeps), marshes and swamps (freshwater). Elevation 40-915 meters. Blooms May-July	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
California satintail	<i>Imperata brevifolia</i>	--/--/2B.2	Perennial rhizomatous herb found in chaparral, coastal scrub, Mojave desert scrub, meadows and seeps (often alkali), riparian scrub (mesic). Elevation 0-1,100 meters. Blooms Sep-May.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Dissected-leaved toothwort	<i>Cardamine pachystigma</i> var. <i>dissectifolia</i>	--/--/1B.2	Perennial rhizomatous herb found in chaparral, lower montane coniferous forest (usually serpentinite, rocky). Elevation 200-2,000 meters. Blooms Feb-May.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Ferris' milk-vetch	<i>Astragalus tener</i> var. <i>ferrisiae</i>	--/--/1B.1	Meadows and seeps (vernally mesic), valley and foothill grassland Annual herb blooms April to May. Occurs between 2 - 75 meters.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
flagella-like atractylocarpus	<i>Campylopodia stenocarpa</i>	--/--/2B.2	Moss found in cismontane woodland. Elevation 90-450 meters.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site.
Greene's tuctoria	<i>Tuctoria greenei</i>	FE/SR/1B.1	Annual herb found in vernal pools. Elevation 275-1,200 meters. Blooms May-July	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site.
hairy Orcutt grass	<i>Orcuttia pilosa</i> Hoov.	FE/SE/1B.1	Annual herb found in vernal pools. Elevation 46-200 meters. Blooms May-Sep	A	Not expected to occur. Suitable habitat for this species is not present within or

Common Name	Scientific Name	Listing Status (Federal/ State/CRPR)	General Habitat Description	Habitat Present/ Absent	Rationale
					adjacent to the project site.
Hoover's spurge	<i>Euphorbia hoover</i>	FT/--/2B.2	Annual herb found in vernal pools. Elevation 22- 230 meters. Blooms Jul-Sep.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site.
pink creamsacs	<i>Castilleja rubicundula</i> var. <i>rubicundula</i>	--/--/1B.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Serpentine. Annual herb (hemiparasitic) blooms April to June. Occurs between 20 - 910 meters.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
recurved larkspur	<i>Delphinium recurvatum</i>	--/--/1B.2	Chenopod scrub, cismontane woodland, valley and foothill grassland. Perennial herb blooms March to June. Occurs between 3 - 790 meters.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Red Bluff dwarf rush	<i>Juncus leiostermus</i> var. <i>leiostermus</i>	--/--/1B.1	Annual herb found in vernal mesic chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools. Elevation 30-1,100 meters. Blooms Mar-Jun.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
silky cryptantha	<i>Cryptantha crinita</i>	--/--/1B.2	Annual herb found in gravelly streambeds within cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland, valley and foothill grassland. Elevation 55-1,000 meters. Blooms Apr-May.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
slender-leaved pondweed	<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	--/--/2B.2	Perennial rhizomatous herb (aquatic) found in marshes and swamps (assorted shallow freshwater). Elevation 270-2,000 meters. Blooms May-Jul.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
veiny monardella	<i>Monardella venosa</i>	--/--/1B.1	Annual herb found in cismontane woodland, valley and foothill grassland (heavy clay).	A	Not expected to occur. Suitable habitat for this species is not

Common Name	Scientific Name	Listing Status (Federal/ State/CRPR)	General Habitat Description	Habitat Present/ Absent	Rationale
			Elevation 55-360 meters. Blooms May-Jul.		present within or adjacent to the project site
watershield	<i>Brasenia schreberi</i>	--/--/2B.2	Marshes and swamps (freshwater). Perennial herb blooms June to September. Occurs between 45 – 1,555 meters.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
white-stemmed clarkia	<i>Clarkia gracilis ssp. albicaulis</i>	--/--/1B.2	Annual herb found in chaparral, cismontane woodland (sometimes serpentine). Elevation 225-1,000 meters. Blooms May-Jul.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
woolly rosemallow	<i>Hibiscus lasiocarpus var. occidentalis</i>	--/--/1B.2	Perennial rhizomatous herb (emergent) found in marshes and swamps (freshwater). Often in riprap on sides of levees. Elevation 0-110 meters. Blooms Jun-Sep.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Invertebrates					
conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE/--/--	The conservancy fairy shrimp is adapted to seasonally inundated features and occur primarily in vernal pools, seasonal wetlands that fill with water during fall and winter rains and dry up in spring and summer. Typically the majority of pools in any vernal pool complex are not inhabited by the species at any one time. Different pools within or between complexes may provide habitat for the fairy shrimp in alternative years, as climatic conditions vary	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT/--/--	The valley elderberry longhorn beetle is completely dependent on its host plant, elderberry (<i>Sambucus spp.</i>), which occurs in riparian and other woodland communities in California's Central Valley and the	A	Not expected to occur. No elderberry shrubs are present within the project site.

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
			associated foothills. Female beetles lay their eggs in crevices on the stems or on the leaves of living elderberry plants. When the eggs hatch, larvae bore into the stems. The larval stages last for one to two years. The fifth instar larvae create emergence holes in the stems and then plug the holes and remain in the stems through pupation. Adults emerge through the emergence holes from late March through June. The short-lived adult beetles forage on leaves and flowers of elderberry shrubs.		
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT/--/--	Vernal pool fairy shrimp is adapted to seasonally inundated features and occur primarily in vernal pools, seasonal wetlands that fill with water during fall and winter rains and dry up in spring and summer. Typically, the majority of pools in any vernal pool complex are not inhabited by the species at any one time. Different pools within or between complexes may provide habitat for the fairy shrimp in alternative years, as climatic conditions vary.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE/--/--	Vernal pool tadpole shrimp is associated with low alkalinity seasonal pools in unplowed grasslands. The vernal pool tadpole shrimp is found only in ephemeral freshwater habitats, including alkaline pools, clay	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
			flats, vernal lakes, vernal pools, vernal swales, and other seasonal wetlands in California. Suitable vernal pools and seasonal swales are generally underlain by hardpan or sandstone. This species inhabits freshwater habitats containing clear to highly turbid water, with water temperatures ranging from 50 to 84 degrees Fahrenheit and pH ranging from 6.2 to 8.5.		
Fish					
Chinook salmon	<i>Oncorhynchus tshawytscha</i> (Central Valley Spring Run ESU)	FT/ST/--	Adult Central Valley spring-run Chinook salmon leave the ocean to begin their upstream migration in late January and early February, and enter the Sacramento River between March and September, primarily in May and June. Spring-run Chinook salmon generally enter rivers as sexually immature fish and must hold in freshwater for up to several months before spawning. While maturing, adults hold in deep pools with cold water. Spawning normally occurs between mid-August and early October, peaking in September	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Delta Smelt	<i>Hypomesus transpacificus</i>	FT/SE/--	The Delta Smelt life cycle follows the four seasons—spring spawning in fresh water, summer migration/rearing in the low salinity zone, fall maturation in the low salinity zone, and winter upstream migration shortly before spawning. Most spawning happens in tidally influenced	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
			backwater sloughs and channel edge waters. Eggs are adhesive, and thought to be released in batches over firm substrates or sand. Delta Smelt is a euryhaline species, able to tolerate a wide salinity range.		
Steelhead Central Valley DPS	<i>Oncorhynchus mykiss irideus</i> pop. 11	FT/--/--	Central Valley steelhead spawn downstream of dams on every major tributary within the Sacramento and San Joaquin River systems. Regardless of life history strategy, for the first year or two of life rainbow trout and steelhead are found in cool, clear, fast-flowing permanent streams and rivers where riffles predominate over pools, there is ample cover from riparian vegetation or undercut banks, and invertebrate life	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Amphibians and Reptiles					
California red-legged frog	<i>Rana draytonii</i>	FT/SSC/--	Inhabits streams with slow-moving water and deep pools, with dense, shrubby riparian vegetation at pool edges. Occurs in foothills surrounding the Sacramento Valley and coastal streams from Marin County to northwestern Baja California. Believed to be extirpated between Los Angeles County and the Mexican border.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Coast horned lizard	<i>Phrynosoma blainvillii</i>	--/SSC/--	A flat-bodied lizard with a wide oval-shaped body, scattered enlarged pointed scales on the upper body and tail, and a large crown of horns or spines on the head. Diurnal. Active during periods of warm	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
			weather, retreating underground and becoming inactive during extended periods of low temperatures or extreme heat. Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills.		
foothill yellow-legged frog	<i>Rana boylei</i>	--/SSC, SC/--	Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
giant gartersnake	<i>Thamnophis gigas</i>	FT/ST/--	Giant gartersnake is found in isolated populations restricted to the Central Valley of California. It is found in freshwater marsh and wetlands, irrigation ditches, low gradient streams and rice fields containing emergent vegetation. Adjacent upland habitat is necessary for cover and aestivation.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Western pond turtle	<i>Emys marmorata</i>	--/SSC/--	A small to medium-sized drab dark brown, olive brown, or blackish turtle with a low unkeeled carapace. Diurnal and aquatic. Typically, active from February through November, with the length of the active season	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
			depending on the temperature of the habitat. May be active during warm periods in winter in warmer climates. Pond turtles are often seen on a log or rock basking above the water, but they will quickly slide into the water when they feel threatened. Pond turtles seldom bask by floating at the surface of the water.		
western spadefoot	<i>Spea hammondi</i>	--/SSC/--	Occurs in grasslands and occasionally hardwood woodlands. This species is largely terrestrial but requires rain pools or other ponded water persisting at least three weeks for breeding. Burrows in loose soils during the dry season. Occurs in the Central Valley and adjacent foothills, the non-desert areas of southern California, and Baja California.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Birds					
American peregrine falcon	<i>Falco peregrinus anatum</i>	--/FP/--	Occurs in a wide range of habitats from wetlands, deserts, forests and islands. In California, breeding habitats include a variety of locations from cliffs in uninhabited areas to tall buildings or bridges within the urban landscape.	HP	Low potential to occur. Suitable habitat for this species is limited within or adjacent to the project site
bald eagle	<i>Haliaeetus leucocephalus</i>	--/SE, FP/--	Lives near large bodies of open water such as lakes, marshes, estuaries, seacoasts and rivers, where fish are abundant. Usually nests within one mile of water in tall trees with open branchwork bordering lakes or large rivers. In Central California, bald eagles	HP	Low potential to occur. Suitable habitat for this species is limited within or adjacent to the project site

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
			prefer foothill pines for nesting.		
bank swallow	<i>Riparia riparia</i>	--/ST/--	Restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. Feeds predominantly over open riparian areas, but also over brushland, grassland, wetlands, water, and cropland.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
burrowing owl	<i>Athene cunicularia</i>	--/SSC/--	Occurs in open annual grasslands or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation in open country in much of North and South America. Also found in agricultural and range lands, railroad rights-of-way, and margins of highways, golf courses, and airports. Usually occupies ground squirrel burrows but will also utilize man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles.	HP	Low potential to occur. Suitable habitat for this species is limited within or adjacent to the project site
California black rail	<i>Laterallus jamaicensis coturniculus</i>	--/ST, FP/--	California black rail occurs near freshwater marshes along the margins of ponds, lakes, and water impoundments; also herb dominated wetlands on sloped ground associated with springs, canal leaks, seepage from impoundments and agricultural irrigation. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
least Bell's vireo	<i>Vireo bellii pusillus</i>	FE/SE/--	Least Bell's vireo primarily occupies riverine riparian habitats along water, including dry portions of intermittent streams that typically provide dense cover within 1 to 2 meters (3.3 to 6.6 feet) off the ground, often adjacent to a complex, stratified canopy.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
loggerhead shrike	<i>Lanius ludovicianus</i>	--/SSC/--	Occurs in broken woodlands, savannah, pinyon-juniper, Joshua tree and riparian woodlands, and desert oasis scrub and washes. Prefers open country with short vegetation for hunting, with perches for scanning and fairly dense shrubs and brush for nesting. Will also inhabit human-created habitats, including pastures, old orchards, cemeteries, and golf courses.	HP	Low potential to occur. Suitable habitat for this species is limited within or adjacent to the project site
Swainson's hawk	<i>Buteo swainsoni</i>	--/ST/--	Swainson's hawk spends the breeding season in the Central Valley of California and is commonly found in agricultural areas or open grasslands containing solitary trees for nesting. Diet consists of small mammals and reptiles.	HP	Low potential to occur. Suitable habitat for this species is limited within or adjacent to the project site
tricolored blackbird	<i>Agelaius tricolor</i>	--/ST, SSC/--	Tricolored blackbird is a colonial species found almost exclusively in California. It utilizes wetlands, marshes and agricultural grain fields for foraging and nesting. The tricolored blackbird population has declined significantly in the past 6 years due to habitat loss and harvest of grain fields before young have fledged.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site

Common Name	Scientific Name	Listing Status (Federal/State/CRPR)	General Habitat Description	Habitat Present/Absent	Rationale
western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FT/SE/--	Western yellow-billed cuckoo inhabits woodlands, thickets, orchards, streamside groves. Breeds mostly in dense deciduous stands, including forest edges, tall thickets, dense second growth, overgrown orchards, scrubby oak woods. Often in willow groves around marshes. In the west, mostly in streamside trees, including cottonwood-willow groves in arid country. Forages by scaling through shrubs and trees, gleaning insects from foliage and branches	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
yellow warbler	<i>Setophaga petechia brewsteri</i>	--/SSC/--	Occurs in wetlands and mature riparian woodlands dominated by cottonwoods (<i>Populus spp.</i>), alders (<i>Alnus spp.</i>), and willows while nesting in the western U.S. and northwestern Baja California. More widespread in brushy areas and woodlands during migration and winter, when occurring from western Mexico to northern South America. Migrants belonging to other subspecies are widespread and common.	A	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project site
Mammals					
pallid bat	<i>Antrozous pallidus</i>	--/SSC/--	Occurs in deserts, grasslands, shrublands, woodlands, and forests in western North America. Most common in open dry habitats with rocky areas for roosting. Roost sites must be protected from high temperatures. Day roosts include caves, crevices, mines and	HP	Potential to occur. Suitable habitat for this species is present within or adjacent to the project site within human-made structures, large-diameter trees, snags.

Common Name	Scientific Name	Listing Status (Federal/ State/CRPR)	General Habitat Description	Habitat Present/ Absent	Rationale
			occasionally hollow trees and buildings.		
western mastiff bat	<i>Eumops perotis californicus</i>	--/SSC/--	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in the crevices in vertical cliff faces, high buildings, and tunnels and travels widely when foraging.	HP	Potential to occur. Suitable habitat for this species is present within or adjacent to the project site within human-made structures, large-diameter trees, snags.
Western red bat	<i>Lasiurus blossevillii</i>	--/SSC/--	The red bat is locally common in some areas of California, occurring from Shasta Co. to the Mexican border, west of the Sierra Nevada Cascade crest and deserts. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. Feeds over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands.	HP	Potential to occur. Suitable habitat for this species is present within or adjacent to the project site within human-made structures, large-diameter trees, snags.

Absent [A] - no habitat present and no further work needed. Habitat Present [HP] -habitat is, or may be present. The species may be present. Present [P] - the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present.

Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); State Rare (SR) Fully Protected (FP); State Rare (SR); State Candidate (SC); State Species of Special Concern (SSC); California Native Plant Society (CNPS), CRPR: California Rare Plant Rank (CNPS) CRPR 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere CRPR 2A: Plants Presumed Extirpated in California, But More Common Elsewhere CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere .1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat) .2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) .3 Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

VELB

According to the CNDDDB, a valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*; VELB) occurrence was observed adjacent to the project area. One elderberry shrub was observed approximately 200 feet outside of the project boundary near Sandy Gulch. It is determined that VELB will not occur within the project area due

to the lack of suitable habitat present. No additional elderberry shrubs (VELB host plant) were observed within the project area during preliminary biological resource surveys.

Birds

Large trees occur within the project area. Tree habitat within the project area provides potential nesting habitat for special status and migratory bird species and maternal roosting habitat for special status bat species. According to the database queries, several special status bird species have the potential to occur including tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), California black rail (*Laterallus jamaicensis coturniculus*), bank swallow (*Riparia riparia*), yellow warbler (*Setophaga petechial*), and least Bell's vireo (*Vireo bellii pusillus*).

Bats

The database query identified several special status bat species with the potential to occur within the project area including pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and western red bat (*Lasiurus blossevillii*). The CNDDDB included one pallid bat occurrence within or adjacent to the project area that documented observing five individuals in 1992 with no specific location identified.

Chapter 4 – Results: Biological Resources, Discussion of Impacts and Mitigation

Habitats and Natural Communities of Special Concern

The project area is highly anthropogenically disturbed, and as a result, the project would occur within an existing disturbed setting that does not contain any native habitats or natural communities of special concern. Common wildlife present in the project area have acclimated and developed tolerance to substantial disturbance that results from the heavily-utilized roadway infrastructure and surrounding land use. Although the project area has little value to most wildlife species, it provides nesting and foraging habitat for common and special-status avian and bat species.

No special status plants, wildlife, or vegetation communities were observed within the project area during preliminary biological surveys. Several trees within the project area contain unoccupied avian nests suggesting potential suitable habitat for special status bird and bat species exists.

Project Impacts

It is not anticipated that project activities would result in a loss of habitat or natural communities of special concern as they are common and abundant throughout the region. No avoidance and minimization efforts or compensatory mitigation is proposed.

Special-Status Plant Species

Survey Results and Project Impacts

No federal or state protected special status plant species were observed within the project area during preliminary surveys. None are expected to occur in the project area due to the lack of suitable habitat. No impacts on special status plants are anticipated and no avoidance or minimization measures are necessary.

Special Status Animal Species

Survey Results and Project Impacts

No special status wildlife species were observed during preliminary surveys. Common wildlife species observed in the project area include native and non-native avian species. Project related activities would not result in loss of sensitive habitat availability locally or regionally, or loss of viability for any of these species given that they are common throughout the region.

Common raptors and passerine birds may nest or roost on existing structures, shrubs, or trees within the project area. Several unoccupied nests were observed during preliminary surveys suggesting avian species utilize the project area for nesting activity. Impacts to these species could include potential temporary displacement during construction activities. Project activities may also temporarily deter wildlife from foraging within the project area. However, short-term potential adverse impacts on foraging in the surrounding lands are considered to be minor as wildlife that currently forage within the project area are assumed to be acclimated to a heavily disturbed area. If vegetation removal must be conducted during the nesting season, a qualified biologist will conduct a preconstruction migratory nesting bird and raptor survey and submit a report of findings and recommendations prior to vegetation removal activities. The potential for adverse effects to any nesting birds during construction of the proposed project would be avoided or minimized with implementation of the AMMs described below.

Suitable roosting habitat for bats occurs within the large trees located within the project area. As such, a preconstruction bat habitat suitability assessment will be conducted prior to the start of project construction to determine whether bats are present. The

potential for adverse effects to any roosting bats during construction of the proposed project would be avoided or minimized with implementation of the measures described below.

Avoidance and Minimization Measures

Based on the results of field surveys, literature review, and other local, state, and federal requirements, the following AMM and Best Management Practices (BMPs) are identified as a means of avoiding and minimizing adverse impacts to biological resources that occur, or have the potential to occur within the project area:

Bio-1 Bird Protection

- In order to comply with Section 10 of the Migratory Bird Treaty Act and relevant sections of the California Fish and Game Code (e.g., 3503, 3503.5, 3504, 3505, 3513), when feasible, project-related construction activities, including tree and vegetation removal, will be initiated or occur during the non-nesting season (August 16 through January 31).
- If project-related construction activities, including tree and vegetation removal, must occur during the avian nesting season (February 1 through August 15), a preconstruction survey for nesting birds shall be conducted by a qualified biologist not more than 7 days prior to the start of noise-generating activities, ground-disturbing construction, or vegetation trimming or removal activities. The survey shall cover the area within the project area and 250 feet outside of the project boundary where accessible. To the maximum extent practicable, a minimum buffer zone from occupied nests shall be determined by the qualified biologist and maintained during physical ground-disturbing activities. Once nesting has ceased, the buffer may be removed.
- If an active nest is found, then the biologist will map the nest location and establish an appropriate species protection buffer around the active nest(s) as determined by the biologist. Construction and vegetation removal activity shall be prohibited within the buffer until the young have fledged (i.e., fly) or the nest fails. Nests shall be monitored once per week and written findings reported to the City (e-mail OK).
- Conduct an additional migratory bird and raptor survey if vegetation removal and/or construction stops for more than 15 days. The survey shall be conducted within seven (7) days prior to the continuation of activities.

Bio-2 Bat Protection

- Removal of potential roost habitat will be avoided during the bat maternity season (May through mid- August). If removal of potential roost habitat occurs outside of the maternity season, no minimization activities will be required.
- If removal of potential roost habitat must be conducted during the maternity season, preconstruction inspections for bats will be conducted using appropriate methods (e.g., camera inspection, exit survey with night optics, acoustic survey) within 14 days of vegetation removal. If bats are found during inspections, removal of that roost feature will be delayed until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight.

Bio-3 Project Site Management

- To avoid attracting predators and nuisance species, the project area shall be clear of debris, where possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from the project area.

Chapter 5 – Conclusions and Regulatory Determinations

Federal Endangered Species Act Consultation Summary

No species listed under the federal ESA will be impacted by the project; therefore, no consultation with the USFWS is required.

Essential Fish Habitat Consultation Summary

No essential fish habitat will be impacted by the project.

California Endangered Species Act Consultation Summary

No species listed under the federal CESA will be impacted by the project; therefore, no consultation with the CDFW is required.

Wetlands and Other Waters Coordination Summary

There are no potentially jurisdictional wetlands or other waters of the U.S. in the project area.

Chapter 6 – References

California Department of Fish and Wildlife (CDFW). 2019. Dataset provided by California Natural Diversity Database in response to nine quad query of project area. Accessed September 2019.

California Native Plant Society (CNPS). 2019. Dataset provided by Inventory of Rare and Endangered Plants (version 8-01a) in response to 5 mile buffer of Project area. Accessed August 2019.

Natural Resource Conservation Service (NRCS) [U.S. Department of Agriculture]. 2019. Soil Survey of Butte Area, California, Parts of Butte and Plumas Counties.

USGS (U.S. Department of the Interior, U.S. Geographic Survey). 1988. 7.5-*Minute Quadrangle Map of Chico, California*.

U.S. Department of Fish and Wildlife (USFWS). 2019. Dataset provided by Information for Planning and Consultation (IPaC) in response to the listed species and habitats within the Proposed Action. Accessed September 2019.

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Appendix A: CNDDDB Species Report

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Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad> IS < IS > (Nord (3912178)> OR < OR > Richardson Springs (3912177)> OR < OR > Paradise West (3912176)> OR < OR > Hamlin Canyon (3912166)> OR < OR > Chico (3912167)> OR < OR > Ord Ferry (3912168)> OR < OR > Llano Seco (3912158)> OR < OR > Nelson (3912157)> OR < OR > Shippee (3912156))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Agelaius tricolor</i> tricolored blackbird	G2G3 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	80 260	955 S:9	1	1	0	0	2	5	6	3	7	2	0
<i>Anthicus antiochensis</i> Antioch Dunes anthicid beetle	G1 S1	None None		100 100	6 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Anthicus sacramento</i> Sacramento anthicid beetle	G1 S1	None None	IUCN_EN-Endangered	100 110	13 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Antrozous pallidus</i> pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	200 200	420 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Ardea alba</i> great egret	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	105 115	43 S:2	1	0	0	0	0	1	2	0	2	0	0
<i>Ardea herodias</i> great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	105 200	155 S:3	1	1	0	0	0	1	2	1	3	0	0
<i>Astragalus tener var. ferrisiae</i> Ferris' milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	105 150	18 S:4	0	0	0	0	1	3	4	0	3	1	0
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	105 310	1985 S:7	0	1	2	0	1	3	4	3	6	0	1



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	175 175	51 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	G2 S2	Endangered None	IUCN_EN-Endangered	190 235	43 S:5	0	0	0	0	0	5	1	4	5	0	0
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	105 290	769 S:26	1	2	2	0	0	21	5	21	26	0	0
<i>Branchinecta meso Vallensis</i> midvalley fairy shrimp	G2 S2S3	None None		215 215	128 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Brasenia schreberi</i> watershield	G5 S3	None None	Rare Plant Rank - 2B.3	100 100	43 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Buteo swainsoni</i> Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	84 180	2510 S:16	2	3	3	0	0	8	14	2	16	0	0
<i>Calystegia atriplicifolia ssp. buttensis</i> Butte County morning-glory	G5T3 S3	None None	Rare Plant Rank - 4.2	700 2,200	121 S:4	0	0	0	0	0	4	2	2	4	0	0
<i>Campylopodiella stenocarpa</i> flagella-like atractylocarpus	G5 S1?	None None	Rare Plant Rank - 2B.2	941 941	3 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Cardamine pachystigma var. dissectifolia</i> dissected-leaved toothwort	G3G5T2Q S2	None None	Rare Plant Rank - 1B.2	1,100 1,400	19 S:4	0	1	1	0	0	2	0	4	4	0	0
<i>Castilleja rubicundula var. rubicundula</i> pink creamsacs	G5T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	185 185	38 S:2	0	0	0	0	2	0	2	0	0	2	0
<i>Clarkia gracilis ssp. albicaulis</i> white-stemmed clarkia	G5T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	700 1,880	32 S:6	0	0	2	0	0	4	3	3	6	0	0
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	G3 S2.1	None None		90 125	60 S:6	5	0	0	0	0	1	6	0	6	0	0
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	85 135	156 S:17	1	0	0	0	0	16	12	5	17	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Cryptantha crinita</i> silky cryptantha	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	120 120	57 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Delphinium recurvatum</i> recurved larkspur	G2? S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	110 110	100 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	G3T2 S2	Threatened None		80 280	271 S:19	4	1	0	0	0	14	10	9	19	0	0
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	135 880	1376 S:6	2	3	1	0	0	0	0	6	6	0	0
<i>Erethizon dorsatum</i> North American porcupine	G5 S3	None None	IUCN_LC-Least Concern	87 1,477	508 S:14	1	0	0	0	0	13	2	12	14	0	0
<i>Eriogonum umbellatum var. ahartii</i> Ahart's buckwheat	G5T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	2,500 2,500	31 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Eumops perotis californicus</i> western mastiff bat	G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority	130 320	296 S:4	0	0	0	0	0	4	2	2	4	0	0
<i>Euphorbia hooveri</i> Hoover's spurge	G1 S1	Threatened None	Rare Plant Rank - 1B.2	175 180	29 S:2	0	1	1	0	0	0	1	1	2	0	0
<i>Falco peregrinus anatum</i> American peregrine falcon	G4T4 S3S4	Delisted Delisted	CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	950 1,800	56 S:2	1	1	0	0	0	0	0	2	2	0	0
<i>Fritillaria eastwoodiae</i> Butte County fritillary	G3Q S3	None None	Rare Plant Rank - 3.2 USFS_S-Sensitive	160 2,600	235 S:10	0	0	0	0	1	9	6	4	9	1	0
<i>Fritillaria pluriflora</i> adobe-lily	G2G3 S2S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	155 320	112 S:7	0	1	0	0	0	6	6	1	7	0	0
<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	G2 S2.1	None None		80 250	56 S:19	7	3	7	1	0	1	19	0	19	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Great Valley Mixed Riparian Forest Great Valley Mixed Riparian Forest	G2 S2.2	None None		85 220	68 S:15	3	3	7	0	0	2	15	0	15	0	0
Great Valley Valley Oak Riparian Forest Great Valley Valley Oak Riparian Forest	G1 S1.1	None None		95 265	33 S:8	1	1	4	0	0	2	8	0	8	0	0
Great Valley Willow Scrub Great Valley Willow Scrub	G3 S3.2	None None		90 110	18 S:7	0	2	3	0	0	2	7	0	7	0	0
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	500 500	327 S:2	1	1	0	0	0	0	0	2	2	0	0
Hibiscus lasiocarpus var. occidentalis woolly rose-mallow	G5T3 S3	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	80 500	173 S:15	0	5	2	2	0	6	14	1	15	0	0
Imperata brevifolia California satintail	G4 S3	None None	Rare Plant Rank - 2B.1 SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	600 800	32 S:2	0	0	0	0	0	2	2	0	2	0	0
Juncus leiostermus var. leiostermus Red Bluff dwarf rush	G2T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive USFS_S-Sensitive	1,300 1,650	62 S:2	0	0	1	0	0	1	1	1	2	0	0
Lanius ludovicianus loggerhead shrike	G4 S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	200 200	110 S:1	0	1	0	0	0	0	0	1	1	0	0
Lasionycteris noctivagans silver-haired bat	G5 S3S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	100 200	139 S:3	0	0	0	0	0	3	2	1	3	0	0



Summary Table Report

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California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lasiurus blossevillii</i> western red bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	130 130	128 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Lasiurus cinereus</i> hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	110 130	238 S:4	0	0	0	0	0	4	1	3	4	0	0
<i>Laterallus jamaicensis coturniculus</i> California black rail	G3G4T1 S1	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	410 570	303 S:3	0	1	0	0	0	2	2	1	3	0	0
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	100 280	325 S:29	2	5	0	0	0	22	10	19	29	0	0
<i>Limnanthes floccosa ssp. californica</i> Butte County meadowfoam	G4T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	120 445	21 S:19	3	6	3	3	0	4	2	17	19	0	0
<i>Limnanthes floccosa ssp. floccosa</i> woolly meadowfoam	G4T4 S3	None None	Rare Plant Rank - 4.2	195 380	54 S:5	1	1	0	1	0	2	5	0	5	0	0
<i>Linderiella occidentalis</i> California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	100 230	438 S:14	2	0	0	0	0	12	1	13	14	0	0
<i>Monardella venosa</i> veiny monardella	G1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	270 270	4 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Myotis yumanensis</i> Yuma myotis	G5 S4	None None	BLM_S-Sensitive IUCN_LC-Least Concern WBWG_LM-Low-Medium Priority	130 530	265 S:3	0	1	0	0	0	2	0	3	3	0	0
<i>Northern Basalt Flow Vernal Pool</i> Northern Basalt Flow Vernal Pool	G3 S2.2	None None		250 250	28 S:1	0	1	0	0	0	0	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	G3 S3.1	None None		175 180	126 S:2	0	0	0	0	0	2	2	0	2	0	0
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	G1 S1.1	None None		150 820	7 S:2	0	0	0	0	0	2	2	0	2	0	0
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	G5T2Q S2	Threatened None	AFS_TH-Threatened		31 S:4	0	0	0	1	0	3	0	4	4	0	0
Oncorhynchus tshawytscha pop. 6 chinook salmon - Central Valley spring-run ESU	G5 S1	Threatened Threatened	AFS_TH-Threatened	700 800	13 S:2	0	0	1	1	0	0	1	1	2	0	0
Pandion haliaetus osprey	G5 S4	None None	CDF_S-Sensitive CDFW_WL-Watch List IUCN_LC-Least Concern	105 120	500 S:4	0	1	0	0	0	3	1	3	4	0	0
Paronychia ahartii Ahart's paronychia	G3 S3	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	240 268	58 S:3	0	0	0	0	0	3	1	2	3	0	0
Phrynosoma blainvillii coast horned lizard	G3G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,220 1,220	780 S:1	0	0	0	0	0	1	1	0	1	0	0
Rana boylei foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	137 919	2411 S:15	1	3	2	0	1	8	4	11	14	0	1
Rhynchospora californica California beaked-rush	G1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	380 850	9 S:4	0	2	0	0	0	2	1	3	4	0	0
Rhynchospora capitellata brownish beaked-rush	G5 S1	None None	Rare Plant Rank - 2B.2	1,500 1,500	25 S:1	0	0	0	0	0	1	1	0	1	0	0
Riparia riparia bank swallow	G5 S2	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	90 140	298 S:25	0	3	2	1	1	18	9	16	24	1	0
Setophaga petechia yellow warbler	G5 S3S4	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	200 200	73 S:1	0	1	0	0	0	0	0	1	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Sidalcea robusta</i> Butte County checkerbloom	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	250 1,300	38 S:33	3	4	1	0	1	24	18	15	32	1	0
<i>Spea hammondi</i> western spadefoot	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	213 320	935 S:5	1	0	1	1	1	1	1	4	4	1	0
<i>Stuckenia filiformis ssp. alpina</i> slender-leaved pondweed	G5T5 S2S3	None None	Rare Plant Rank - 2B.2	260 260	21 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	90 90	590 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Thamnophis gigas</i> giant gartersnake	G2 S2	Threatened Threatened	IUCN_VU-Vulnerable	90 135	366 S:17	3	2	1	0	0	11	8	9	17	0	0
<i>Trifolium jokerstii</i> Butte County golden clover	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_USDA-US Dept of Agriculture	150 268	11 S:5	2	0	0	0	0	3	1	4	5	0	0
<i>Tuctoria greenei</i> Greene's tuctoria	G1 S1	Endangered Rare	Rare Plant Rank - 1B.1	105 180	50 S:5	0	3	1	0	1	0	1	4	4	0	1
<i>Vireo bellii pusillus</i> least Bell's vireo	G5T2 S2	Endangered Endangered	IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	120 200	501 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Wolffia brasiliensis</i> Brazilian watermeal	G5 S2	None None	Rare Plant Rank - 2B.3	100 120	6 S:3	0	0	0	0	0	3	2	1	3	0	0

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Appendix B: IPaC Species Report

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

February 04, 2020

Consultation Code: 08ESMF00-2019-SLI-2921

Event Code: 08ESMF00-2020-E-03015

Project Name: Esplanade Corridor Safety and Accessibility Improvement Project City of Chico

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-2921

Event Code: 08ESMF00-2020-E-03015

Project Name: Esplanade Corridor Safety and Accessibility Improvement Project City of Chico

Project Type: TRANSPORTATION

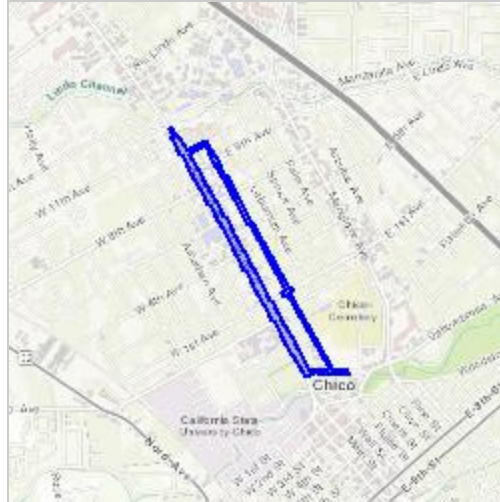
Project Description: The proposed project is located along an approximate 1.25-mile segment of the Esplanade within the City of Chico between Memorial Way and East 11th Avenue, along Oleander Avenue between Memorial Way and East 10th Avenue, along East 10th Avenue between Esplanade and Oleander Avenue, and along Memorial Way between Esplanade and approximately 0.06 miles (335 feet) east of the Memorial Way and Oleander Avenue intersection. The project is in the “Chico, CA” USGS Quadrangle, Sections 22 and 27, of Township 22 North, Range 1 East.

The City of Chico proposes to create a separated and paved Class I multi-use bicycle/pedestrian path along the Esplanade, connecting downtown; California State University, Chico; Chico Junior and Senior High Schools; a regional hospital; and neighborhoods adjacent to the existing Airport Class I multi-use path at 11th Avenue. The parallel street to the east of the Esplanade, Oleander Avenue, would also receive signage, sidewalk, signal, and stop control improvements between 10th Avenue and Memorial Way. A roundabout would be installed at the intersection of Oleander Avenue and Memorial Way adjacent to Chico Junior High School. Two traffic signals are proposed to be installed at the intersections of Oleander Avenue/1st Avenue and West Sacramento Avenue/Esplanade.

The project would be constructed in one phase. It is currently anticipated that the proposed improvements would be constructed over an approximate 9 month period starting in early Spring of 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.74107761049991N121.84797376832935W>



Counties: Butte, CA

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Butte County Meadowfoam <i>Limnanthes floccosa ssp. californica</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4223	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:

September 03, 2019

Consultation Code: 08ESMF00-2019-SLI-2921

Event Code: 08ESMF00-2019-E-09339

Project Name: Esplanade Corridor Safety and Accessibility Improvement Project City of Chico

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

To Whom It May Concern:

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

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

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

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Project Type: TRANSPORTATION

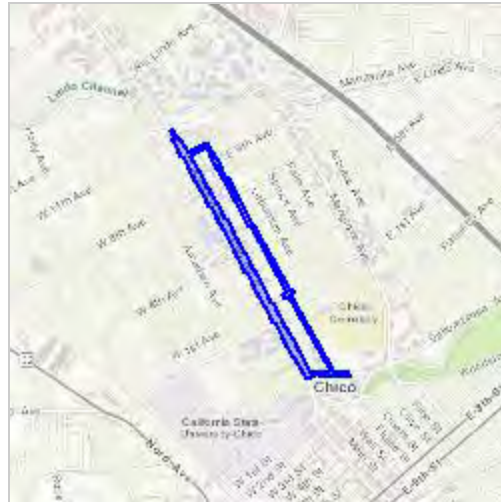
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Flowering Plants

NAME	STATUS
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Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix C: CNPS Rare Plant List

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*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

25 matches found. [Click on scientific name for details](#)

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2B], Found in Quads 3912178, 3912177, 3912176, 3912168, 3912167, 3912166, 3912158 3912157 and 3912156;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	1B.1	S1	G2T1
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Brasenia schreberi	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	2B.3	S3	G5
Campylopodia stenocarpa	flagella-like atractylolcarpus	Dicranaceae	moss		2B.2	S1?	G5
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	Brassicaceae	perennial rhizomatous herb	Feb-May	1B.2	S2	G3G5T2Q
Castilleja rubicundula var. rubicundula	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	1B.2	S2	G5T2
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	Onagraceae	annual herb	May-Jul	1B.2	S3	G5T3
Cryptantha crinita	silky cryptantha	Boraginaceae	annual herb	Apr-May	1B.2	S2	G2
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	annual herb	Jul-Sep(Oct)	1B.2	S1	G1
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2S3	G2G3
Hibiscus lasiocarpus var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
Juncus leiostermus var. leiostermus	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2
Limnanthes floccosa ssp. californica	Butte County meadowfoam	Limnanthaceae	annual herb	Mar-May	1B.1	S1	G4T1
	veiny monardella	Lamiaceae	annual herb	May,Jul	1B.1	S1	G1

[Monardella venosa](#)

<u>Orcuttia pilosa</u>	hairy Orcutt grass	Poaceae	annual herb	May-Sep	1B.1	S1	G1
<u>Paronychia ahartii</u>	Ahart's paronychia	Caryophyllaceae	annual herb	Feb-Jun	1B.1	S3	G3
<u>Rhynchospora californica</u>	California beaked-rush	Cyperaceae	perennial rhizomatous herb	May-Jul	1B.1	S1	G1
<u>Rhynchospora capitellata</u>	brownish beaked-rush	Cyperaceae	perennial herb	Jul-Aug	2B.2	S1	G5
<u>Sidalcea robusta</u>	Butte County checkerbloom	Malvaceae	perennial rhizomatous herb	Apr,Jun	1B.2	S2	G2
<u>Stuckenia filiformis ssp. alpina</u>	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3	G5T5
<u>Trifolium jokerstii</u>	Butte County golden clover	Fabaceae	annual herb	Mar-May	1B.2	S2	G2
<u>Tuctoria greenei</u>	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	1B.1	S1	G1
<u>Wolffia brasiliensis</u>	Brazilian watermeal	Araceae	perennial herb (aquatic)	Apr,Dec	2B.3	S2	G5

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 07 November 2019].

Search the Inventory[Simple Search](#)[Advanced Search](#)[Glossary](#)**Information**[About the Inventory](#)[About the Rare Plant Program](#)[CNPS Home Page](#)[About CNPS](#)[Join CNPS](#)**Contributors**[The Calflora Database](#)[The California Lichen Society](#)[California Natural Diversity Database](#)[The Jepson Flora Project](#)[The Consortium of California Herbaria](#)[CalPhotos](#)**Questions and Comments**rareplants@cnps.org

Appendix D: Preliminary Biological Resource Report

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TEHAMA

ENVIRONMENTAL SOLUTIONS, INC.

January 4, 2019

Ms. Claire Bromund
ICF Jones & Stokes, Inc.
630 K Street, Suite 400
Sacramento, CA 95814

**Re: Preliminary Biological Review
Esplanade Corridor Safety and Accessibility Project
Chico, CA**

Dear Ms. Bromund:

Tehama Environmental Solutions, Inc. (TES) has prepared this letter report for ICF Jones & Stokes, Inc. to present the results of a preliminary biological review, including a file review and site visit for the Esplanade Corridor Safety and Accessibility Project, in the City of Chico, Butte County, California.

METHODS

File Review

Prior to the site visit, TES reviewed the Esplanade Corridor Safety and Accessibility Study provided by the City of Chico along with species lists generated from the California Natural Diversity Database, the US Fish and Wildlife Service and the National Marine Fisheries Service.

Site Visit

Site visits were conducted by Mr. Jeff Souza, TES Principal Biologist, on December 17, 2018 and by Ms. Lori Macdonald, TES Associate Environmental Scientist, on January 3, 2019 to review the project elements in relationship to biological resources. The site visits were conducted by traversing the project limits by car and stopping at select locations.

Big Chico Creek and Lindo Channel (when flowing) provide anadromous fish habitat for Central Valley spring-run Chinook salmon (federal and state Threatened Species), Sacramento River winter-run Chinook salmon (federal and state Endangered Species) and California Central Valley steelhead (federal Threatened Species) and Critical Habitat for Central Valley spring-run Chinook salmon and California Central Valley steelhead. Essential Fish Habitat for Chinook salmon is also present. No direct impacts to wetlands or waterway are anticipated as a part of this project. However, there is a potential for temporary, indirect impacts to occur during construction if construction materials and sediment were to enter the storm drain system.

Valley elderberry longhorn beetle (VELB) habitat, a federal Threatened Species, is present near the project limits. One elderberry shrub was observed approximately 200 feet north of the northern project limits south of Lindo Channel. There is a potential that VELB may be impacted indirectly during construction as a result of construction dust or directly impacted by construction equipment.

Swainson's hawk, a state Threatened Species, has been observed nesting in developed areas and occurrences have been reported within four miles of the project. However, Swainson's hawk has a low

likelihood of nesting within or near the project limits due to a lack of sufficient foraging habitat in the general area.

Several special-status bat species may roost and / or forage within or near the project limits including pallid bat and Western red bat, both California Department of Fish and Wildlife Species of Special Concern.

Nesting habitat exists within and adjacent to the project for a number of other raptors (eagles, hawks and owls) protected under the California Fish and Game Code.

Nesting habitat exists within and adjacent to the project for a number of migratory bird species protected under the U.S. Migratory Bird Treaty Act (16 U.S.C. 703) and the California Fish and Game Code.

Given the developed nature of the project limits, it is not anticipated that rare plants would be present.

CONCLUSIONS

After conducting the site visits and reviewing state and federal special status lists, we provide the following conclusions:

- There are no wetlands, jurisdictional waters and/or riparian habitats within the project boundary per our understanding of the project boundaries.
- Direct impacts to anadromous fisheries located north and south of the project limits are not likely since work will not occur in wetlands and waterways and there will be no changes to the existing stormwater system. Indirect impacts could occur due to construction run-off.
- Potential direct and indirect impacts to VELB may occur due to potential equipment impacts and construction dust.
- Potential impacts to several special-status bats could occur given the presence of trees with cavities and services located within and adjacent to the project limits and the proposed removal of vegetation.
- Potential impacts to nesting raptors and songbirds could occur given the presence of trees and shrubs located within, and adjacent to the project limits and the proposed removal of vegetation.
- It is not anticipated that rare plants would be present since the project area is developed.

Please call me at (530) 528-8272 if you have any questions or would like to discuss the results of this preliminary review.

Sincerely,



Lori Macdonald
Associate Environmental Scientist
Tehama Environmental Solutions, Inc.

LM:rs

Appendix E: Tree Survey Results

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Biological Monitoring/Surveying

Date: 6/19/2019 Start Time: 1200 Stop Time: 1730

Project: _____

Location: Chico CA

Monitor (Name/Phone Number): Phillip Reyes 881 718 7466

Rep. (Name/Phone Number): _____

Construction

Foreman (Name/Phone Number): N/A

Construction Activities¹: N/A

Ground Disturbance: Yes ☐ No ☐

Cloud Cover (%): <u>clear</u>	Wind Speed: <u>1-2 mph</u> Elevation: _____
Temp (°F): <u>91°F</u>	Figure/Map: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Species of Concern ⁵ <u>Elderberry #2 found near Northern boundary of proposed work</u>	Record Number, Location, Observed Activity, and Avoidance Measures ^{2,3,4} : <u>None</u>
Biologically Sensitive Areas to be Avoided ^{6,7} (Describe or habitat type on figure). <u>Trees w/ nests identified and gpsd w/ unit</u> <u>No Active Nesting Activity Observed</u>	<u>More nests may be present</u>
Work Report (work completed; status, discoveries, observations, problems encountered)	

Biological Monitoring/Surveying

Provide other information in the area below:

Sycamore 01 DBH 72"
 Sycamore 02 DBH 66 1/8"
 Sweetgum 01 DBH 96 1/4"
 Sycamore 03 DBH 128 1/8"
 American Sweetgum 02 DBH 77 3/4"
 American Sweetgum 03 DBH 79 5/8"
 Sycamore 04 DBH 122 1/8"
 Sycamore 05 DBH 120 1/2"
 Sycamore 06 DBH 72 1/2"
 American Sweetgum 04 DBH 73 1/4"
 American Sweetgum 05 DBH 87 1/2"
 Sycamore 07 DBH 99 5/8"
 American Sweetgum 06 DBH 75"
 Sycamore 08 DBH 103"
 American Sweetgum 07 DBH 71 3/4"
 American Sweetgum 08 DBH 67 3/4"
 American Sweetgum 09 DBH 88 1/4"
 Sycamore 09 DBH 107 1/2"
 Sycamore 10 DBH 49 7/8"
~~Sycamore 11 DBH~~

¹ CPL=Construct Power Line; CSS=Construct Substation; FW=Fill wetland area; DR = Dredging; PD = Pile Driving;

DEM = Demolition; EG = equipment traffic; CUPL=Construct underground power/pipe line; O&M = Operation and Maintenance; GRD = Grading; STR = Stringing Power Line

² Record Approximate distances from construction site for every sighting (Feet)

³ FO = Fly over; F = foraging; R = resting; PR = pair; N= at nest; FC = carrying food; FL = fledglings;

⁴ AV = avoidance of construction activity

⁵ Species Status

Federal Status:

FE: Endangered

FT: Threatened

FC: Candidate for listing

FSC: Species of Concern

MB: Migratory Bird Treaty Act

State Status:

CE: Endangered

CT: Threatened

CSC: California species of special concern

SFP: State Fully Protected

SA: Special animal

CNPS- California Native Plant Society Status:

1B = Rare, threatened or endangered in California and elsewhere and are rare throughout their range. According to CNPS, all of the plants constituting List 1B meet the definitions of Sec. 1901.

2 = Rare in California, but not elsewhere.

NA = Not Applicable

⁶ Nesting behavior and responses to construction activities

⁷ Within 250 feet of construction activities

Biological Monitoring/Surveying

Photo 1: View of inactive stick nest observed during survey.



Photo 2: View of large inactive stick nest observed during survey.



Biological Monitoring/Surveying

Photo 3: View of tree tag prior to installation on tree scheduled for removal.



Photo 4: View installed tree tag installed on tree scheduled for removal.

