Natural Environment Study (Minimal Impacts)

Eaton Road and State Route 99 Southbound Ramps Project

Chico, Butte County, California

Caltrans District 3-Butte-SR99-Post Miles 36.58-35.97

EA: 03-3J270 / EFIS: 0322000237

November 2024

STATE OF CALIFORNIA
Department of Transportation
City of Chico

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1. Introduction

1.1 Project History

1.1.1 Project Purpose and Need

The purpose of the Eaton Road and State Route 99 Southbound Ramps Project (Project) is to complete a roundabout at Eaton Road and State Route (SR) 99 southbound ramps. The Project would install a roundabout, complete bicycle lanes, and rehabilitate roadway pavement on the offramp and onramp

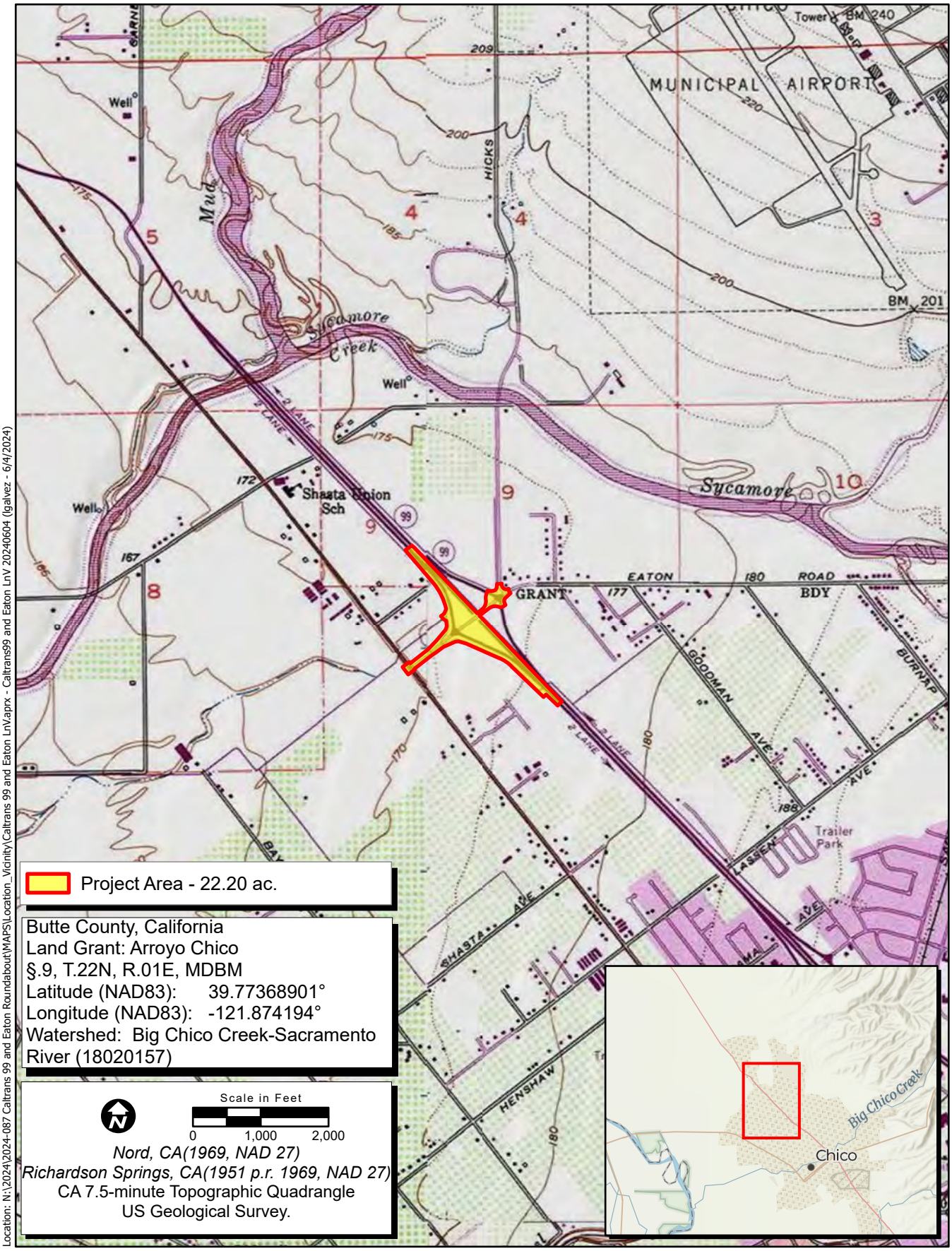
The Project would address the need to improve safety for all travel modes at the SR 99 southbound ramps intersection with Eaton Road. The secondary purpose of the Project is to improve operations, reduce delay, and enhance mobility for all modes of travel through the Project Area.

With the recent completion of the northbound Eaton Road roundabout, additional congestion and potential safety issues have arisen at the existing southbound four-legged intersection with side-street stop control and close proximity between the two intersections. In addition, there are incomplete bicycle and pedestrian facilities throughout the interchange.

1.2 Project Description

The approximately 22.2-acre Proposed Project is located at the on and off ramps of southbound State Route (SR) 99 at Eaton Road in the City of Chico, Butte County, California (Figure 1). The Project spans from Postmile Marker 36.58 to 35.97. The Project proposes to replace the existing intersection of Eaton Road at the SR99 southbound on/off ramps with a multi-lane roundabout. Improvements proposed include:

- Yield control roundabout with modified lane geometrics, curb, gutter, ramps, sidewalk, and streetlights;
- Widened and realigned intersection approaches for entrances/exits to roundabout;
- Widened portion of Eaton Road near Constitution Drive to accommodate traffic lane reconfigurations, including extending an existing box culvert beneath Eaton Road;
- Remove/replace existing mainline Hot Mix Asphalt pavement within roundabout limits and on approaches to roundabout;
- Buffered 10-foot wide pedestrian and bicycle shared-use path through the new roundabout and along a maintenance path north of the roundabout;
- Americans with Disabilities Act compliant curb ramps and two-stage pedestrian crossings with pedestrian refuges;



Location: N:\2024\2024-087 Caltrans 99 and Eaton Roundabout\MAPS\Location_Vicinity\Caltrans 99 and Eaton LnV.aprx - Caltrans99 and Eaton LnV 20240604 (lgalvez - 6/4/2024)

Map Date: 6/4/2024
Sources: ESRI, USGS

Figure 1. Project Location and Vicinity

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2024-087 Eaton Road and State Route 99 Southbound Ramps Project

- Three pre-cast pedestrian bridges approximately 14 feet wide and approximately 30 to 50 feet long clear spanning a Shasta Union Drainage Assessment District ditch;

- Adjusted utility vaults and manholes to match final pavement surface elevations along Eaton Road;

- Modified existing drainage facilities and storm water quality treatment facilities where necessary to ensure proper treatment and drainage; and

- Temporary construction easements and potential right-of-way acquisition for conforming one to two parcels to a new shared-use-path to existing sidewalk and bike lanes along Eaton Road

The Project correspond to portions of Section 9, Township 22 North, and Range 01 East of the Arroyo Chico Landgrant (Mount Diablo Base and Meridian) of the “Richardson Springs, California” and "Nord, California" 7.5-minute quadrangles (U.S. Geological Survey [USGS] 1969 and 1951, photorevised 1969, respectively). The approximate center of the Project is located at 39.77368901° latitude and -121.874194° longitude and is located within the Big Chico Creek-Sacramento River Watershed (Hydrologic Unit Code #18020157; Natural Resources Conservation Service, USGS, and U.S. Environmental Protection Agency [USEPA] 2016).

1.3 Results Summary

There is habitat present in the Project for four special-status plant species, one special-status bird species, several common species of bird that are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code, and two special-status species of bats. No habitats or communities of special concern, or potential waters of the U.S./State were observed within the Project. Results of the assessment are presented in section 3 of this report. Recommendations for avoidance and minimization measures to minimize potential Project impacts to special-status and regulated species are presented in section 4 of this report.

2. Study Methods

The purpose of this Natural Environment Study (Minimal Impacts) (NESMI) is to assess the potential for occurrence of special-status plant and animal species or their habitat, and sensitive habitats such as riparian and oak woodlands, and potential waters of the United States (U.S.)/State, including wetlands, within the Biological Study Area (BSA) which is further defined in section 3.1.1. This assessment does not include determinate field surveys conducted according to agency-promulgated protocols. The conclusions and recommendations presented in this report are based upon a review of the available literature and site reconnaissance.

For the purposes of this assessment, special-status species are defined as plants or animals that:

- are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act (ESA);
- are listed or candidates for future listing as threatened or endangered under the California ESA;
- meet the definitions of endangered or rare under Section 15380 of the California Environmental Quality Act (CEQA) Guidelines;
- are identified as a species of special concern by the California Department of Fish and Wildlife (CDFW);
- are birds identified as birds of conservation concern (BCC) by the U.S. Fish and Wildlife Service (USFWS);
- are plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (California Rare Plant Ranks [CRPR] 1 and 2);
- are plants listed as rare under the California Native Plant Protection Act (NPPA; California Fish and Game Code, Section 1900 et seq.);
- are fully protected in California in accordance with the California Fish and Game Code, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes); or,
- are identified as a Watch List species by the CDFW, which “are taxa that were previously Species of Special Concern (SSCs) but do not currently meet SSC criteria, and for which there is concern and a need for additional information to clarify status.”

Only species that fall into one of the above listed groups were considered for this assessment.

Potential impacts to protected biological resources were investigated and documented to comply with the provisions of various state and federal environmental statutes and executive orders. Biological resources database searches were conducted to identify biological resources with potential to occur in the vicinity of the BSA. A reconnaissance-level field assessment was conducted on May 24, 2024, to assess potential species, habitats, and aquatic resources that are present in the BSA. The database searches and site assessment are further discussed in Sections 2.2.1, 2.2.2 and 2.2.3. The results of the study are further discussed in Section 3.

Following the site visit, the potential for protected biological resources to occur within the BSA was evaluated and potential impacts to protected resources were determined as discussed in Sections 3.2, 4.0, and 5.0.

2.1 Regulatory Requirements

2.1.1 Federal Regulations

2.1.1.1 Federal Endangered Species Act

The ESA protects plants and animals that are listed as endangered or threatened by the USFWS and the National Marine Fisheries Service (NMFS). Section 9 of ESA prohibits the taking of listed wildlife, where take is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16 U.S. Code [USC] 1538). Under Section 7 of ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a Biological Opinion (BO), the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.1.2 Section 7

Section 7 of ESA mandates that all federal agencies consult with USFWS and/or NMFS to ensure that federal agencies’ actions do not jeopardize the continued existence of a listed species or adversely modify critical habitat for listed species. The adverse modifications will require formal consultation with USFWS or NMFS if direct and/or indirect effects will occur to critical habitat that appreciably diminish the value of critical habitat for both the survival and recovery of a species. The applicant must conduct a biological assessment (BA) for the purpose of analyzing the potential effects of the project on listed species and critical habitat to establish and justify an "effect determination" if adverse effects are likely. The federal agency reviews the BA and prepares a BO if it concludes that the project may adversely affect a listed species or its habitat. The BO may recommend *reasonable and prudent alternatives* to the project to avoid jeopardizing or adversely modifying habitat.

2.1.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of

depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

2.1.1.4 Federal Clean Water Act

The U.S. Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into Waters of the U.S. under Section 404 of the Clean Water Act (CWA). "Discharges of fill material" is defined as the addition of fill material into Waters of the U.S., including, but not limited to, the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 CFR Section 328.2(f)]. In addition, Section 401 of the CWA (33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Substantial impacts to wetlands (over 0.5 acre of impact) may require an individual permit. Projects that only minimally affect wetlands (less than 0.5 acre of impact) may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

On December 22, 2022, the USEPA and Department of the Army (Agencies) announced a final rule defining Waters of the U.S. The definition was founded upon the pre-2015 "Rapanos" decision, updated to reflect consideration of U.S. Supreme Court decisions, the science, and the Agencies' technical expertise. The final rule was published in the Federal Register on January 18, 2023 and effective as of March 20, 2023.

On May 25, 2023, the U.S. Supreme Court adopted a narrower definition of Waters of the U.S. in the case *Sackett v. Environmental Protection Agency*. Under the majority opinion, Waters of the U.S. refers to "geographical features that are described in ordinary parlance as 'streams, oceans, rivers, and lakes' and to adjacent wetlands that are 'indistinguishable' from those bodies of water due to a continuous surface connection." At this time, it is unclear if or when the Agencies will issue guidance interpreting the U.S. Supreme Court's opinion.

2.1.2 State or Local Regulations

2.1.2.1 California Endangered Species Act

The California ESA (California Fish and Game Code Sections 2050-2116) generally parallels the main provisions of the federal ESA, but unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. *Take* is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered, threatened or candidate species or result in destruction or adverse modification of essential habitat.

2.1.2.2 Fully Protected Species

The state of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the state and/or federal ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code Section 4700 for mammals, 3511 for birds, 5050 for reptiles and amphibians, and 5515 for fish) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species. CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit.

2.1.2.3 Native Plant Protection Act

The NPPA of 1977 was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW and provided in California Fish and Game Code Sections 1900-1913. The Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code Sections 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.1.2.4 Protected Birds

Sections 3503, 3513, and 3800 of the California Fish and Game Code specifically protects birds. Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Additionally,

Subsection 3503.5 prohibits the take, possession, or destruction of any birds and their nests in the orders Strigiformes (owls) or Falconiformes (hawks and eagles). These provisions, along with the federal MBTA, serve to protect birds and their nests. Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA. Section 3800 states that it is unlawful to take nongame birds, such as those occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the commission or a mitigation plan approved by CDFW for mining operations.

2.1.2.5 California Streambed Alteration Notification/Agreement

Section 1602 of the California Fish and Game Code requires that a Streambed Alteration Application (SAA) be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW reviews the proposed actions and, if necessary, submits proposed measures to protect affected fish and wildlife resources to the applicant. The SAA is the final proposal mutually agreed upon by CDFW and the Applicant. Projects that require an SAA often also require a permit from the USACE under Section 404 of the CWA. The conditions of the Section 404 permit and the SAA overlap in these instances.

2.1.2.6 Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, with any region that could affect the quality of the waters of the state" (Water Code 13260(a)). Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, which are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of a Waste Discharge Requirements for these activities.

2.1.2.7 California Environmental Quality Act

Per CEQA Guidelines Section 15380, a species not protected on a federal or state list may be considered rare or endangered if the species meets certain specified criteria. These criteria follow the definitions in the federal and California ESAs, and Sections 1900-1913 of the California Fish and Game Code, which deal with rare or endangered plants or animals. Section 15380 was included in the CEQA Guidelines primarily to deal

with situations where a project under review may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

2.1.2.8 CEQA Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant and are particularly relevant to SSC. Generally, impacts to listed (rare, threatened, or endangered) species are considered significant and require lead agencies to prepare an Environmental Impact Report to thoroughly analyze and evaluate the impacts. Assessment of "impact significance" to populations of non-listed species (e.g., SSC) usually considers the proportion of the species' range that will be affected by a project, impacts to habitat, and the regional and population level effects.

Specifically, Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;

- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;

- have a substantial adverse effect on federally protected Waters of the U.S. including wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;

- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of,

an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA because although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

2.1.2.9 Species of Special Concern

The CDFW defines SSC as a species, subspecies, or distinct population of an animal native to California that are not legally protected under ESA, the California ESA or the California Fish and Game Code, but currently satisfy one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is listed as federally (but not state) threatened or endangered, or meets the state definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.
- SSC are typically associated with threatened habitats. Project-related impacts to SSC, state-threatened or endangered species are considered significant under CEQA.

SSC are typically associated with threatened habitats. Projects that result in substantial impacts to SSC may be considered significant under CEQA.

2.1.2.10 USFWS Birds of Conservation Concern

The 1988 amendment to the Fish and Wildlife Conservation Act mandates USFWS "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under ESA." To meet this requirement, USFWS published a list of BCC (USFWS 2021) for the U.S. The list identifies the migratory and nonmigratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS' highest conservation priorities. Projects that result in substantial impacts to BCC may be considered significant under the CEQA, depending on the policy of the lead agency.

2.1.2.11 California Rare Plant Ranks

The CNPS maintains the *Inventory of Rare and Endangered Plants of California* (CNPS 2024), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, or low populations. Plant species meeting one of these criteria are assigned to one of six CRPR. The rank system was developed in collaboration with government, academia, non-governmental organizations, and private sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the California Natural Diversity Database (CNDDB). The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere
- Rare Plant Rank 3 – a review list of plants about which more information is needed
- Rare Plant Rank 4 – a watch list of plants of limited distribution

Additionally, the CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 1 through 3, with 1 being the most threatened and 3 being the least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for the majority of plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California), and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

- Threat Rank 0.1 – Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- Threat Rank 0.2 – Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
- Threat Rank 0.3 – Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Rank; and differences in Threat

Ranks do not constitute additional or different protection (CNPS 2024). Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, or 2 are typically considered significant under CEQA Guidelines Section 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 3 or 4.

2.2 Studies Required

2.2.1 Literature Search

The following resources were reviewed to determine the special-status species that have been documented within or in the vicinity of the BSA or that otherwise have the potential to occur on-site:

- USFWS Information for Planning and Consultation (IPaC) System Resource Report List for the BSA (USFWS 2024);
- NMFS Resources data for the “Richardson Springs, California” and "Nord, California" 7.5-minute USGS quadrangle (National Oceanic and Atmospheric Administration 2024)
- CNDDB data for the “Richardson Springs, California” and "Nord, California" 7.5-minute USGS quadrangles and the surrounding ten USGS quadrangles (CDFW 2024); and,
- CNPS’ electronic Inventory of Rare and Endangered Plants of California was queried for the “Richardson Springs, California” and "Nord, California" 7.5-minute USGS quadrangles and the surrounding ten USGS quadrangles (CNPS 2024).

The results of the database queries are included in Appendix A.

2.2.2 Field Reviews

The reconnaissance survey entailed the biologist walking meandering transects through the BSA while noting visual observations of biological resources, representative habitats, and vegetation communities within the BSA. Special attention was given to identifying those portions of the BSA with the potential to support special-status species and sensitive habitats. During the field survey, vegetation communities occurring within the BSA were characterized and the following biological resource information was collected:

- Plant and animal species directly observed, or their sign;
- Burrows and any other special habitat features;
- Elderberry (*Sambucus nigra* ssp. *mexicana*) shrubs;
- Aquatic resources; and,

- Representative BSA photographs.

Based on species occurrence information from database queries, literature review, and observations in the field, a list of special-status and CNDDB-tracked plant and animal species that have the potential to occur within the vicinity of the BSA was generated and is located in Section 3.2. Each of the species was evaluated for being absent, its habitat being present, the species being present, or critical habitat present within the BSA through the database queries, literature review, and field observations, and categorized based on the following criteria:

- **Absent** - No suitable habitat (including soils and elevation requirements) and/or the species is not known to occur within the vicinity of the BSA based on CNDDB records and other documentation.

- **Habitat Present** - Species habitat was observed during the site visit within the BSA based.

- **Present** – The species was observed within the BSA or is known to occur within the BSA based on CNDDB records or other documentation.

- **Critical Habitat** – Project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present.

2.2.3 Survey Methods

2.3 Personnel and Survey Dates

ECORP Consulting, Inc. Senior Biologist Daniel Machek conducted the reconnaissance-level field visit for the BSA on May 24, 2024. Mr. Machek has 17 years of professional experience as a wildlife biologist working in northern California. His areas of expertise are in herpetology, ornithology, bats, and aquatic resource delineation. He is also experienced in regulatory permitting and compliance, and preparing technical reports, including Biological Assessments for Section 7 consultation, Biological Resource Assessments, and California Department of Transportation (Caltrans) Natural Environmental Studies. He has also conducted wetland delineations, biological construction monitoring, and surveys for numerous special-status plant and wildlife species.

2.4 Agency Coordination and Professional Contacts

No communications with agency personnel or other professionals have occurred.

2.5 Limitations That May Influence Results

No limitations and constraints that may influence the results of this NESMI have been identified.

3. Results: Environmental Setting

3.1 Description of the Existing Physical and Biological Conditions

3.1.1 Biological Study Area

The BSA is located within flat terrain situated at an elevational range of approximately 170 to 200 feet above mean sea level (MSL) in the Sacramento Valley Subregion of the Great Central Valley floristic region of California (Baldwin et al. 2012). The BSA includes the southbound lane of SR99, the off and on ramps at Eaton Road, and Eaton Road from the intersection of Esplanade Road to the SR99 northbound roundabout (Figure 2). The primary construction activities would occur on Eaton Road from Constitution Avenue to the western abutment of the SR99 overcrossing. The BSA was delineated along the Project limits since the noise and visual impacts of construction will be similar to the baseline noise and visual conditions present from traffic on the SR 99 and Eaton Road.

Representative photographs of the BSA are included in Appendix B.

3.1.1 Physical Conditions

The BSA is primarily composed of developed roads. An ephemeral stormwater drainage ditch, which is part lined with concrete and part unlined, runs parallel to southbound SR99, passes under Eaton Road through a culvert, continues parallel to southbound SR99, and eventually crosses under SR99, and continues east past northbound SR99. The surrounding land use includes a business park and medium density residential. The BSA is located within the Big Chico Creek-Sacramento River Watershed.

A stormwater drainage ditch, which is part concrete lined and part unlined, runs parallel to southbound SR99 and provides marginal habitat for wildlife and plants. The stormwater ditch appears to collect stormwater from agricultural fields and housing developments northeast of the BSA where it flows south, parallel to northbound SR99. The stormwater ditch then passes under SR99 and enters the northern side of the BSA where it then flows south, parallel to southbound SR99. It flows through a culvert under Eaton Road and continues flowing south parallel to southbound SR99. It flows east through a culvert under SR99 out of the southern limits of the BSA. The drainage ditch appears to continue flowing south offsite parallel to northbound SR99 before turning east toward Godman Avenue and eventually entering a directed inlet at Godman Avenue. The stormwater ditch was dry at the time of the reconnaissance-level field visit.

3.1.2 Biological Conditions

The BSA is disturbed, developed, or otherwise anthropogenically influenced (Figure 3). A description of the disturbed/developed land cover type is described below.

A list of plants observed during the reconnaissance-level site visit is included as Appendix C. A list of wildlife observed during the reconnaissance-level site visit is included as Appendix D.

Location: N:\2024\2024-087 Caltrans 99 and Eaton Roundabout\MAPS\Aerial_Maps\Caltrans 99 and Eaton Aerials.aprx - Caltrans99 and Eaton Biological Study Area 20240604 (lgalvez - 8/8/2024)

Map Date: 8/8/2024

Sources: maxar, Esri World Imagery

Figure 2. Biological Study Area

Map Contents

Study Area - 22.20 ac.

Land Cover Types

Developed

Disturbed

Sources: Maxar, Esri World Imagery

Location: N:\2024\2024-087 Caltrans 99 and Eaton Roundabout\MAPS\Vegetation_and_LandCover\Caltrans 99 and Eaton Vegetation aprx - Caltrans 99 and Eaton Vegetation 20240729 (galvez - 7/29/2024)

Map Date: 7/29/2024

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Scale in Feet
0 40

Figure 3. Land Cover Types

2024-087 Eaton Road and State Route 99 Southbound Ramps Project

3.1.3 Disturbed/Developed

The disturbed and developed land cover type is found across the entire BSA. The portions of the BSA with hardscape such as sidewalks and pavement are considered developed. The portions of the BSA without hardscape that are devoid of vegetation or are dominated by vegetation planted by humans and nonnative ruderal herbaceous species are considered the disturbed land cover type. The disturbed land cover type includes roadsides and the stormwater drainage ditch that are maintained and typically devoid of vegetation. This landcover type also includes pine (*Pinus* sp.), valley oak (*Quercus lobata*), California sycamore (*Platanus racemosa*), and other ornamental trees that are maintained. The herbaceous layer of the disturbed land cover type is dominated by non-native annual grasses and other invasive species as well as ornamental landscaping.

3.1.4 Habitat Connectivity

Habitat connectivity is established when a natural wildlife movement corridor connects blocks of undeveloped, relatively large wildlife habitat. The habitat areas connected can be either native or nonnative areas, as long as they support wildlife habitat values. A wildlife corridor is defined as the entirety of a linear path between such larger habitat areas that functions to allow for genetic interchange between wildlife populations. Wildlife corridors provide genetic interchange between otherwise separate wildlife populations and effectively increase the wildlife population viability within each connected block of habitat. They are also typically useful for dispersal of young animals and are a means for escape and survival during stochastic disturbances such as fire, flood, or other large-scale disturbance.

The BSA does not provide wildlife movement corridors or Essential Habitat Connectivity areas based on the California Essential Habitat Connectivity Project that is maintained by CDFW and Caltrans (CDFW 2010).

3.2 Regional Species and Habitats and Natural Communities of Concern

Table 1 lists all of the special-status plant and wildlife species identified in the literature review as potentially occurring within the vicinity (12 USGS quad search) of the BSA. All species in Table 1 were evaluated for their potential to occur within the BSA, based on site characteristics such as soils, elevation, and vegetation communities and species-specific information such as typical habitats and known geographical and elevational ranges. This table includes the listing status for each species, a brief habitat description, and a determination on the potential to occur within the BSA. Each species with potential habitat within the BSA is further discussed in Section 4.

Table 1. Potentially Occurring Special-Status Plant and Wildlife Species

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Plants					
Sanborn's onion	*Allium sanbornii* var. *sanbornii*	US: -- CA: -- CNPS: 4.2	Chaparral, cismontane woodland, and lower montane coniferous forests, usually with gravelly, serpentine soil. Elevation: 855–4,955 feet Bloom Period: May–September	A	There is no suitable habitat within the BSA.
Depauperate milk-vetch	*Astragalus pauperculus*	US: -- CA: -- CNPS: 4.3	Occurs within vernally mesic and volcanic soils in chaparral, cismontane woodland, and valley and foothill grasslands. Elevation: 195–3,985 feet Bloom Period: March–June	A	There is no suitable habitat within the BSA.
Ferris' milk-vetch	*Astragalus tener* var. *ferrisiae*	US: -- CA: -- CNPS: 1B.1	Vernally mesic meadows and seeps and in sub–alkaline flats within valley and foothill grasslands. Elevation: 5–245 feet Bloom Period: April–May	A	There is no suitable habitat within the BSA.
Mexican mosquito fern	*Azolla microphylla*	US: -- CA: -- CNPS: 4.2	Marshes and swamps, ponds or slow–moving bodies of water. Elevation: 100–330 feet Bloom Period: August	A	There is no suitable habitat within the BSA.
Big-scale balsamroot	*Balsamorhiza macrolepis*	US: -- CA: -- CNPS: 1B.2	Chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils. Elevation: 150'–5,100' Bloom Period: March–June	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Valley brodiaea	*Brodiaea rosea* ssp. *vallicola*	US: -- CA: -- CNPS: 4.2	Occurs in old alluvial terraces and silt, sandy, or gravelly soils in vernal pools and swales within valley and foothill grassland. Elevation: 35–1,100 feet Bloom Period: April–May	A	There is no suitable habitat within the BSA.
Callahan's mariposa-lily	*Calochortus syntrophus*	US: -- CA: -- CNPS: 1B.1	Cismontane woodland and vernally mesic valley and foothill grassland. Elevation: 1,725'–3,755' Bloom Period: May–June	A	There is no suitable habitat within the BSA. Outside of species elevational range.
Butte County calycadenia	*Calycadenia oppositifolia*	US: -- CA: -- CNPS: 4.2	Occurs on volcanic, granitic, and serpentine areas of chaparral, cismontane woodland, lower montane coniferous forest, meadows, seeps and valley and foothill grassland. Elevation: 295–3,100 feet Bloom Period: April–July	HP	The volcanic soils within the BSA may provide suitable habitat for this species.
Spicate calycadenia	*Calycadenia spicata*	US: -- CA: -- CNPS: 1B.3	Adobe, clay, disturbed areas, dry, gravelly, openings, roadsides, and rocky sites within cismontane woodland and valley and foothill grassland. Elevation: 130'–4,595' Bloom Period: May–September	HP	The roadsides may provide suitable habitat for this species.
Butte County morning-glory	*Calystegia atriplicifolia* ssp. *buttensis*	US: -- CA: -- CNPS: 4.2	Occurs on rocky sites and sometimes roadsides of chaparral, lower montane coniferous forest, valley and foothill grassland Elevation: 1,855'-5,000' Bloom Period: May-July	A	There is no suitable habitat within the BSA. Outside of species elevational range.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Dissected-leaved toothwort	*Cardamine pachystigma* var. *dissectifolia*	US: -- CA: -- CNPS: 1B.2	Rocky, usually serpentine soils of chaparral and lower montane coniferous forest. Elevation: 835'–6,890' Bloom Period: February– May	A	There is no suitable habitat within the BSA.
Pink creamsacs	*Castilleja rubicundula* var. *rubicundula*	US: -- CA: -- CNPS: 1B.2	Serpentine substrates in chaparral openings, cismontane woodland, meadows and seeps, and valley and foothill grassland. Elevation: 65'–2,985' Bloom Period: April–June	A	There is no suitable habitat within the BSA.
White-stemmed clarkia	*Clarkia gracilis* ssp. *albicaulis*	US: -- CA: -- CNPS: 1B.2	Sometimes serpentine soils of chaparral and cismontane woodland. Elevation: 805'–3,560' Bloom Period: May–July	A	There is no suitable habitat within the BSA. Outside of species elevational range.
Mildred's clarkia	*Clarkia mildrediae* ssp. *mildrediae*	US: -- CA: -- CNPS: 1B.3	Sandy, usually granitic soils of cismontane woodland and lower montane coniferous forest. Elevation: 805'–5,610' Bloom Period: May–August	A	There is no suitable habitat within the BSA. Outside of species elevational range.
Marsh claytonia	*Claytonia palustris*	US: -- CA: -- CNPS: 4.3	Meadows and seeps (mesic), marshes and swamps, and upper montane coniferous forest. Elevation: 3,280–8,205 feet Bloom Period: May–October	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Silky cryptantha	*Cryptantha crinita*	US: -- CA: -- CNPS: 1B.2	Gravelly streambeds of cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland, and valley and foothill grassland habitats. Elevation: 200'–3,985' Bloom Period: April–May	A	There is no suitable habitat within the BSA.
Red-stemmed cryptantha	*Cryptantha rostellata*	US: -- CA: -- CNPS: 4.2	Often gravelly volcanic openings and roadsides of cismontane woodland and valley and foothill grassland. Elevation: 130–2,625 feet Bloom Period: April–June	HP	There is suitable habitat within the BSA.
Dwarf downingia	*Downingia pusilla*	US: -- CA: -- CNPS: 2B.2	Mesic areas in valley and foothill grassland, and vernal pools. Species has also been found in disturbed areas such as tire ruts and scraped depressions. Elevation: 5'–1,460' Bloom Period: March–May	A	There is no suitable habitat within the BSA.
Ahart's buckwheat	*Eriogonum umbellatum* var. *ahartii*	US: -- CA: -- CNPS: 1B.2	Serpentine soils, slopes, and openings of chaparral and cismontane woodland. Elevation: 1,310'–6,560' Bloom Period: June–September	A	There is no suitable habitat within the BSA. Outside of species elevational range.
Shield-bracted monkeyflower	*Erythranthe glaucescens*	US: -- CA: -- CNPS: 4.3	Serpentine seeps and sometimes streambanks of chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. Elevation: 195–4,070 feet Bloom Period: February–August	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Hoover's spurge	*Euphorbia hooveri*	US: FT CA: -- CNPS: 1B.2	Vernal pools. Elevation: 80'–820' Bloom Period: July–September	A	There is no suitable habitat within the BSA.
Butte County fritillary	*Fritillaria eastwoodiae*	US: -- CA: -- CNPS: 1B.2	Chaparral, cismontane woodland, and openings in lower montane coniferous forest and occasionally is found on serpentine soils. Elevation: 165–4,920 feet Bloom Period: March–June	A	There is no suitable habitat within the BSA.
Adobe lily	*Fritillaria pluriflora*	US: -- CA: -- CNPS: 1B.2	Adobe soils in chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 195'–2,315' Bloom Period: February–April	A	There is no suitable habitat within the BSA. There is one historic and non-specific location occurrence within the BSA; however, the BSA is disturbed and not suitable to support adobe lily.
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	US: -- CA: CE CNPS: 1B.2	Clay substrates of marshes and swamps (lake margins) and vernal pools. Elevation: 35'–7,790' Bloom Period: April–August	A	There is no suitable habitat within the BSA.
Hogwallow starfish	*Hesperevax caulescens*	US: -- CA: CE CNPS: 4.2	Mesic areas with clay soil within valley and foothill grassland, shallow vernal pools, and sometimes alkaline areas. Elevation: 0–1,655 feet Bloom Period: March–June	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Woolly rose-mallow	*Hibiscus lasiocarpos* var. *occidentalis*	US: -- CA: -- CNPS: 1B.2	Marshes and freshwater swamps. Often in riprap on sides of levees. Elevation: 0–395 feet Bloom Period: June–September	A	There is no suitable habitat within the BSA.
California satintail	*Imperata brevifolia*	US: -- CA: -- CNPS: 2B.1	Mesic areas in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali) and riparian scrub. Elevation: 0'–3,985' Bloom Period: September–May	A	There is no suitable habitat within the BSA.
Red Bluff dwarf rush	*Juncus leiospermus* var. *leiospermus*	US: -- CA: -- CNPS: 1B.1	Vernally mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools. Elevation: 115'–4,100' Bloom Period: March–June	A	There is no suitable habitat within the BSA.
Coulter's goldfields	*Lasthenia glabrata* ssp. *coulteri*	US: -- CA: CE CNPS: 1B.1	Coastal marshes and swamps, playas, and vernal pools. Elevation: 5–4,005 feet Bloom Period: February–June	A	There is no suitable habitat within the BSA.
Legenere	*Legenere limosa*	US: -- CA: -- CNPS: 1B.1	Various seasonally inundated areas including wetlands, wetland swales, marshes, vernal pools, artificial ponds, and floodplains of intermittent drainages. Elevation: 5'–2,885' Bloom Period: April–June	A	There is no suitable habitat within the BSA.
Serpentine leptosiphon	*Leptosiphon ambiguus*	US: -- CA: -- CNPS: 4.2	Usually serpentine soils of cismontane woodland, coastal scrub, and valley and foothill grassland. Elevation: 395–3,710 feet Bloom Period: March–June	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Humboldt lily	*Lilium humboldtii* ssp. *humboldtii*	US: -- CA: -- CNPS: 4.2	Occurs in openings within chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 295–4,200 feet Bloom Period: May–July	A	There is no suitable habitat within the BSA.
Butte County meadowfoam	*Limnanthes floccosa* ssp. *californica*	US: FE CA: CE CNPS: 1B.1	Mesic valley and foothill grassland and vernal pools. Elevation: 150'–3,050' Bloom Period: March–May	A	There is no suitable habitat within the BSA.
Woolly meadowfoam	*Limnanthes floccosa* ssp. *floccosa*	US: -- CA: -- CNPS: 4.2	Vernally mesic chaparral, cismontane woodland, valley and foothill grassland, and vernal pools. Elevation: 195–4,380 feet Bloom Period: March–May	A	There is no suitable habitat within the BSA.
Lassics lupine	*Lupinus constancei*	US: FE CA: CE CNPS: 1B.1	Lower montane coniferous forest (serpentinite). Elevation: 4,920'-6,560' Bloom Period: July	A	There is no suitable habitat within the BSA. Outside of species elevational range.
Veiny monardella	*Monardella venosa*	US: FE CA: CE CNPS: 1B.1	Heavy clay soils in cismontane woodland and valley and foothill grasslands. Elevation: 195'–1,345' Bloom Period: May–July	A	There is no suitable habitat within the BSA.
Tehama navarretia	*Navarretia heterandra*	US: -- CA: -- CNPS: 4.3	Mesic areas in valley and foothill grassland and vernal pools. Elevation: 100–3,315 feet Bloom Period: April–June	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Adobe navarretia	*Navarretia nigelliformis* ssp. *nigelliformis*	US: -- CA: -- CNPS: 4.2	Clay and sometimes serpentine soils in vernally mesic valley and foothill grasslands and sometimes in vernal pools. Elevation: 330–3,280 feet Bloom Period: April–June	A	There is no suitable habitat within the BSA.
California Orcutt grass	*Orcuttia californica*	US: FE CA: CE CNPS: 1B.1	Vernal pools Elevation: 50'–2,165' Bloom Period: April–August	A	There is no suitable habitat within the BSA.
Hairy Orcutt grass	*Orcuttia pilosa*	US: FE CA: CE CNPS: 1B.1	Vernal pools. Elevation: 150'–655' Bloom Period: May–September	A	There is no suitable habitat within the BSA.
Slender Orcutt grass	*Orcuttia tenuis*	US: FT CA: CE CNPS: 1B.1	Vernal pools, often gravelly. Elevation: 115'–5,775' Bloom Period: May–September	A	There is no suitable habitat within the BSA.
Ahart's paronychia	*Paronychia ahartii*	US: -- CA: -- CNPS: 1B.1	Well–drained rocky outcrops, often vernal pool edges, and volcanic upland of cismontane woodland, valley and foothill grassland, and vernal pools. Elevation: 100'–1,675' Bloom Period: February–June	A	There is no suitable habitat within the BSA.
Bidwell's knotweed	*Polygonum bidwelliae*	US: -- CA: -- CNPS: 4.2	Volcanic soils of chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 195–3,935 feet Bloom Period: April–July	HP	There is marginally suitable habitat for this species within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
California beaked-rush	*Rhynchospora californica*	US: -- CA: -- CNPS: 1B.1	Bogs and fens, lower montane coniferous forest, seeps in meadows, and freshwater marshes and swamps. Elevation: 150'–3,315' Bloom Period: May–July	A	There is no suitable habitat within the BSA.
Brownish beaked-rush	*Rhynchospora capitellata*	US: -- CA: -- CNPS: 2B.2	Mesic areas in lower montane coniferous forest, upper montane coniferous forests, meadows and seeps, marshes and swamps. Elevation: 150'–6,560' Bloom Period: July–August	A	There is no suitable habitat within the BSA.
Hall's rupertia	*Rupertia hallii*	US: -- CA: -- CNPS: 1B.2	Sometimes roadsides and often openings in cismontane woodland and lower montane coniferous forest. Elevation: 1,790'–7,380' Bloom Period: June–August	A	There is no suitable habitat within the BSA. Outside of species elevational range.
Sanford's arrowhead	*Sagittaria sanfordii*	US: -- CA: -- CNPS: 1B.2	Shallow marshes and freshwater swamps. Elevation: 0'–2,135' Bloom Period: May–October	A	There is no suitable habitat within the BSA.
Siskiyou jellyskin lichen	*Scytinium siskiyouense*	US: -- CA: -- CNPS: 1B.1	Epiphytic, usually on the bark of plants in the Fagaceae family, such as *Quercus* or *Chrysolepis,* in lower montane coniferous forest and North Coast coniferous forest. Elevation: 2,085'–4,790' Bloom Period: N/A	A	There is no suitable habitat within the BSA. Outside of species elevational range.
Butte County checkerbloom	*Sidalcea robusta*	US: -- CA: -- CNPS: 1B.2	Chaparral and cismontane woodland. Elevation: 295'–5,250' Bloom Period: April–June	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Northern slender pondweed	*Stuckenia filiformis* ssp. *alpina*	US: -- CA: -- CNPS: 2B.2	Assorted shallow freshwater marshes and swamps. Elevation: 985'–7,055' Bloom Period: May–July	A	There is no suitable habitat within the BSA. Outside of species elevational range.
Greene's tuctoria	*Tuctoria greenei*	US: FE CA: CR CNPS: 1B.1	Vernal pools. Elevation: 100'–3,510' Bloom Period: May–July	A	There is no suitable habitat within the BSA.
Brazilian watermeal	*Wolffia brasiliensis*	US: -- CA: -- CNPS: 2B.3	Assorted shallow freshwater marshes and swamps. Elevation: 65'–330' Bloom Period: April–December	A	There is no suitable habitat within the BSA.
Invertebrates					
Crotch bumble bee	*Bombus crotchii*	US: -- CA: CC	Primarily nests underground in open grassland and scrub habitats from the California coast east to the Sierra Cascade and south to Mexico. Survey Period: March-September	A	There is no suitable nesting habitat within the BSA with minimal foraging opportunities due to disturbed land cover being mowed.
Conservancy fairy shrimp	*Branchinecta conservatio*	US: FE CA: --	Vernal pools/wetlands. Survey Period: November-April when surface water is present.	A	There is no suitable habitat within the BSA.
Vernal pool fairy shrimp	*Branchinecta lynchi*	US: FT CA: --	Vernal pools/wetlands. Survey Period: November–April when surface water is present.	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Monarch butterfly	*Danaus plexippus*	US: FC CA: --	Overwinters along coastal California in wind-protected groves of eucalyptus, Monterey pine and cypress with nearby nectar and water sources; disperses in spring throughout California. Adults breed and lay eggs during the spring and summer, feeding on a variety of nectar sources; eggs are laid exclusively on milkweed plants.	A	There is no suitable habitat within the BSA.
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	US: FT CA: --	Found exclusively on its host plant, the elderberry shrub, in riparian and oak woodland/ oak savannah habitats of California's Central Valley from Shasta to Madera counties.	A	There is no suitable habitat within the BSA. Elderberry shrubs were not observed within the BSA.
Vernal pool tadpole shrimp	*Lepidurus packardi*	US: FE CA: --	Vernal pools/wetlands. Survey Period: November-April when surface water is present.	A	There is no suitable habitat within the BSA.
Fish					
Green sturgeon	*Acipenser medirostris*	US: FT CA: SSC	Anadromous; undammed cold-water rivers that have relatively deep pools with large substrates. Survey Period: N/A	A	There is no suitable habitat within the BSA.
Steelhead (CA Central Valley DPS)	*Oncorhynchus mykiss irideus*	US: FT CA: SSC	Fast-flowing, well-oxygenated rivers and streams below dams in the Sacramento and San Joaquin River systems. Survey Period: N/A	A	There is no suitable habitat within the BSA.
Chinook salmon (Central Valley spring-run ESU)	*Oncorhynchus tshawytscha*	US: FT CA: CT	Undammed rivers, streams, creeks in the Sacramento and San Joaquin River systems. Survey Period: N/A	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Chinook salmon (Sacramento River winter-run ESU)	*Oncorhynchus tshawytscha*	US: FE CA: CE	Undammed reaches of the mainstem and tributaries to the Sacramento River downstream of Shasta Reservoir. Survey Period: N/A	A	There is no suitable habitat within the BSA.
Amphibians					
Western spadefoot (Northern DPS)	*Spea hammondii*	US: FPT CA: SSC	California endemic species of vernal pools, swales, and seasonal wetlands in grassland, scrub and woodland habitats throughout the Central Valley and South Coast Ranges. Prefers open areas with sandy or gravelly soils. Survey Period: Winter-Spring.	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Foothill yellow-legged frog Northwest/ North Coast Clade	*Rana boylii*	US: -- CA: SSC	Partly shaded shallow streams and riffles in variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of permanent water to attain metamorphosis. Can be active all year in warmer locations; become inactive or hibernate in colder climates. Northern Coast Ranges, Klamath Mountains and Cascade Range. Survey Period: May–October.	A	There is no suitable habitat within the BSA.
Foothill yellow-legged frog North Feather River/Upper Feather River Watershed Clade	*Rana boylii*	US: FT CA: CT, SSC	Partly shaded shallow streams and riffles in variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of permanent water to attain metamorphosis. Can be active all year in warmer locations; become inactive or hibernate in colder climates. Feather River watershed above Oroville. Survey Period: May–October.	A	There is no suitable habitat within the BSA.
Reptiles					
Northwestern pond turtle	*Actinemys marmorata*	US: FPT CA: SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches. Survey Period: April-September	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Blainville's ("Coast") horned lizard	*Phrynosoma blainvillii*	US: -- CA: SSC	Formerly a wide-spread horned lizard found in a wide variety of habitats, often in lower elevation areas with sandy washes and scattered low bushes. Also occurs in Sierra Nevada foothills. Requires open areas for basking, but with bushes or grass clumps for cover, patches of loamy soil or sand for burrowing and an abundance of ants (Stebbins and McGinnis 2012). In the northern Sacramento area, this species appears restricted to the foothills between 1000 to 3000 feet from Cameron Park (El Dorado County) north and west to Grass Valley and Nevada City. Survey Period: April-October	A	There is no suitable habitat within the BSA.
Giant garter snake	*Thamnophis gigas*	US: FT CA: CT	Freshwater ditches, sloughs, and marshes in the Central Valley. Almost extirpated from the southern parts of its range. Survey Period: April-October	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Birds					
Yellow-billed cuckoo	*Coccyzus americanus*	US: FT CA: CE	Breeding habitat is generally open woodland with clearings and low, dense, scrubby vegetation associated with watercourses, and includes desert riparian woodlands with willow, Fremont's cottonwood, alder, walnut, box-elder, and dense mesquite. Nests are generally found in deciduous hardwoods with thick bushes, vines, or hedgerows providing dense foliage within 10 meters (33 feet) of ground; prefer riparian patches of at least 81 hectares (200 acres). Winters in South America. Nesting: June 15-August 15	A	There is no suitable habitat within the BSA.
California black rail	*Laterallus jamaicensis coturniculus*	US: -- CA: CT, CFP	Salt marsh, shallow freshwater marsh, wet meadows, and flooded grassy vegetation. In California, primarily found in coastal and Bay-Delta communities, but also in Sierran foothills (Butte, Yuba, Nevada, Placer, El Dorado counties). Nesting: March-September	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
California gull (nesting colony)	*Larus californicus*	US: BCC CA: CDFW WL	Nesting occurs in the Great Basin, Great Plains, Mono Lake, and south San Francisco Bay. Breeding colonies located on islands on natural lakes, rivers, or reservoirs. Winters along Pacific Coast from southern British Columbia south to Baja California and Mexico. In California, winters along coast and inland (Central Valley, Salton Sea). Nesting: April-August	A	There is no suitable habitat within the BSA.
Golden eagle	*Aquila chrysaetos*	US: CFP CA: CDFW WL	Nesting habitat includes mountainous canyon land, rimrock terrain of open desert and grasslands, riparian, oak woodland/ savannah, and chaparral. Nesting occurs on cliff ledges, river banks, trees, and human-made structures (e.g., windmills, platforms, and transmission towers). Breeding occurs throughout California, except the immediate coast, Central Valley floor, Salton Sea region, and the Colorado River region, where they can be found during Winter. Nesting: February-August Wintering in Central Valley: October-February	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Osprey	*Pandion haliaetus*	US: -- CA: CDFW WL	Nesting habitat requires close proximity to accessible fish, open nest site free of mammalian predators, and extended ice-free season. Nest in large trees, snags, cliffs, transmission/ communication towers, artificial nest platforms, channel markers/buoys. Nesting: April-September	A	There is no suitable habitat within the BSA.
Northern harrier	*Circus hudsonius*	US: BCC CA: SSC	Nests on the ground in open wetlands, marshy meadows, wet/lightly grazed pastures, (rarely) freshwater/brackish marshes, tundra, grasslands, prairies, croplands, desert, shrub-steppe, and (rarely) riparian woodland communities. Nesting: April-September	A	There is no suitable habitat within the BSA.
Bald eagle	*Haliaeetus leucocephalus*	US: Delisted CA: CE, CFP	Typically nests in forested areas near large bodies of water in the northern half of California; nest in trees and rarely on cliffs; wintering habitat includes forest and woodland communities near water bodies (e.g., rivers, lakes), wetlands, flooded agricultural fields, open grasslands. Nesting: February-September Wintering: October-March	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Swainson's hawk	*Buteo swainsoni*	US: -- CA: CT	Nesting occurs in trees in agricultural, riparian, oak woodland, scrub, and urban landscapes. Forages over grassland, agricultural lands, particularly during disking/harvesting, irrigated pastures. Nesting: March-August	HP	The trees within the disturbed land cover type of the BSA provides marginal nesting habitat due to the large amount of human disturbance in the area
Western screech-owl	*Megascops kennicottii*	US: BCC CA: --	Breeding habitat includes vegetation communities with deciduous trees, such as riparian, desert, and oak and pine-oak woodlands. Nesting: March-July	A	There is no suitable habitat within the BSA.
Burrowing owl	*Athene cunicularia*	US: BCC CA: SSC	Nests in burrows or burrow surrogates in open, treeless, areas within grassland, steppe, and desert biomes. Often with other burrowing mammals (e.g., prairie dogs, California ground squirrels). May also use human-made habitat such as agricultural fields, golf courses, cemeteries, roadside, airports, vacant urban lots, and fairgrounds. Nesting: February-August	A	There is no suitable habitat within the BSA.
Long-eared owl	*Asio otus*	US: BCC CA: SSC	Nests in open forests, riparian woodland, conifer forests, dense vegetation adjacent to grasslands, shrublands or other open communities. Nesting: March-August Wintering in Central Valley: November-March	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Nuttall's woodpecker	*Dryobates nuttallii*	US: BCC CA: --	Resident from northern California south to Baja California. Nests in tree cavities in oak woodlands and riparian woodlands. Nesting: April-July	HP	The oak trees within the disturbed land cover type of the BSA provide suitable habitat.
Olive-sided flycatcher	*Contopus cooperi*	US: BCC CA: SSC	Nests in montane and northern coniferous forests, in forest openings, forest edges, semi-open forest stands. In California, nests in coastal forests, Cascade and Sierra Nevada region. Winters in Central to South America. Nesting: May-August	A	There is no suitable habitat within the BSA.
Least Bell's vireo	*Vireo bellii pusillus*	US: FE CA: CE	In California, breeding range includes Ventura, Los Angeles, Riverside, Orange, San Diego, and San Bernardino counties, and rarely Stanislaus and Santa Clara counties. Nesting habitat includes dense, low shrubby vegetation in riparian areas, brushy fields, young second-growth woodland, scrub oak, coastal chaparral and mesquite brushland. Winters in southern Baja California Sur. Nesting: April 1-July 31	A	There is no suitable habitat within the BSA.
Yellow-billed magpie	*Pica nuttallii*	US: BCC CA: --	Endemic to California; found in the Central Valley and coast range south of San Francisco Bay and north of Los Angeles County; nesting habitat includes oak savannah with large in large expanses of open ground; also found in urban parklike settings. Nesting: April-June	HP	The trees within the BSA provide suitable nesting habitat for this species.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Oak titmouse	*Baeolophus inornatus*	US: BCC CA: --	Nests in tree cavities within dry oak or oak-pine woodland and riparian; where oaks are absent, they nest in juniper woodland, open forests (gray, Jeffrey, Coulter, pinyon pines and Joshua tree). Nesting: March-July	HP	The trees within the BSA provide suitable nesting habitat for this species.
Bank swallow	*Riparia riparia*	US: -- CA: CT	Nests colonially along coasts, rivers, streams, lakes, reservoirs, and wetlands in vertical banks, cliffs, and bluffs in alluvial, friable soils. May also nest in sand, gravel quarries and road cuts. In California, breeding range includes northern and central California. Nesting: May-July	A	There is no suitable habitat within the BSA.
Wrentit	*Chamaea fasciata*	US: BCC CA: --	Coastal sage scrub, northern coastal scrub, chaparral, dense understory of riparian woodlands, riparian scrub, coyote brush and blackberry thickets, and dense thickets in suburban parks and gardens. Nesting: March-August	A	There is no suitable habitat within the BSA.
Cassin's finch	*Haemorhous cassinii*	US: BCC CA: --	Breeds throughout the conifer belts of North America's western interior mountains, from central British Columbia to northern New Mexico and Arizona; mostly between 3,000'-10,000' elevation. Often in mature forests of pine, spruce and aspen; especially open, dry pine forests. Some will breed in open sagebrush shrubland with scattered western junipers. Nesting: May-July	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Lawrence's goldfinch	*Spinus lawrencei*	US: BCC CA: --	Breeds in Sierra Nevada and inner Coast Range foothills surrounding the Central Valley and the southern Coast Range to Santa Barbara County east through southern California to the Mojave Desert and Colorado Desert into the Peninsular Range. Nests in arid and open woodlands with chaparral or other brushy areas, tall annual weed fields, and a water source (e.g., small stream, pond, lake), and to a lesser extent riparian woodland, coastal scrub, evergreen forests, pinyon-juniper woodland, planted conifers, and ranches or rural residences near weedy fields and water. Nesting: March-September	A	There is no suitable habitat within the BSA.
Belding's savannah sparrow	*Passerculus sandwichensis beldingi*	US: BCC CA: CE	Resident coastally from Point Conception south into Baja California; coastal salt marsh. Year-round resident; nests March-August	A	There is no suitable habitat within the BSA.
Santa Barbara song sparrow	*Melospiza melodia graminea*	US: BCC CA: SSC	Resident of San Miguel Island and Santa Rosa Island of the Channel Islands. Year-round resident; nests March-August	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Tricolored blackbird	*Agelaius tricolor*	US: BCC CA: CT, SSC	Breeds locally west of Cascade-Sierra Nevada and southeastern deserts from Humboldt and Shasta counties south to San Bernardino, Riverside and San Diego counties. Central California, Sierra Nevada foothills and Central Valley, Siskiyou, Modoc and Lassen counties. Nests colonially in freshwater marsh, blackberry bramble, milk thistle, triticale fields, weedy (mustard, mallow) fields, giant cane, safflower, stinging nettles, tamarisk, riparian scrublands and forests, fiddleneck and fava bean fields. Nesting: March-August	A	There is no suitable habitat within the BSA.
Bullock's oriole	*Icterus bullockii*	US: BCC CA: --	Breeding habitat includes riparian and oak woodlands. Nesting: March-July	HP	The trees within the BSA provide suitable nesting habitat for this species.
Saltmarsh common yellowthroat	*Geothlypis trichas sinuosa*	US: BCC CA: SSC	Breeds in salt marshes of San Francisco Bay; winters San Francisco south along coast to San Diego County. Nesting: March-July	A	There is no suitable habitat within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Mammals					
Pallid bat	*Antrozous pallidus*	US: -- CA: SSC	Crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of redwoods, cavities of oaks, exfoliating pine and oak bark, deciduous trees in riparian areas, and fruit trees in orchards). Also roosts in various human structures such as bridges, barns, porches, bat boxes, and human occupied as well as vacant buildings (Western Bat Working Group [WBWG] 2024). Survey Period: April-September	HP	One cavity in a California sycamore was observed at the southbound on ramp.
Western red bat	*Lasiurus frantzii*	US: -- CA: SSC	Roosts in foliage of trees or shrubs; Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores) (WBWG 2024). Survey Period: April-September	HP	Marginally suitable habitat is present within the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Western mastiff bat	*Eumops perotis californicus*	US: -- CA: SSC	Primarily a cliff-dwelling species, found in similar crevices in large boulders and buildings. Survey Period: April-September	A	There is no suitable habitat within the BSA.

[1]Habitat descriptions for plant species are from the CNPS Rare Plant Inventory (CNPS 2024) unless otherwise cited.
[2]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); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS); Federal Endangered Species Act (FESA); California Endangered Species Act (CESA); Distinct Population Segment (DPS); Evolutionarily Significant Unti (ESU); USFWS Bird of Conservation Concern (BCC); CESA- or NPPA-listed, Rare (CR); California ESA- or NPPA-listed, Threatened (CT); California ESA or NPPA listed, Endangered (CE); Candidate for CESA listing as Endangered or Threatened (CC); California Fish and Game Code Fully Protected Species (§ 3511-birds, § 4700-mammals, §5 050-reptiles/amphibians) (CFP); CRPR/Rare or Endangered in California and elsewhere (1B); Plants rare, threatened, or endangered in California but more common elsewhere (2B); CRPR/Plants About Which More Information is Needed – A Review List (3); CRPR/Plants of Limited Distribution – A Watch List (4); Threat Rank/Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat) (0.1); Threat Rank/Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) (0.2); Threat Rank/Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known) (0.3)

4. Results: Biological Resources, Discussion of Impacts, and Mitigation

4.1 Habitats and Natural Communities of Special Concern

The CDFW CNDDB results identify the following Natural Communities of Special Concern as occurring within the vicinity of the BSA: Northern Hardpan Vernal Pool, Northern Volcanic Mudflow Vernal Pool, Coastal and Valley Freshwater Marsh, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Valley Oak Riparian Forest, and Great Valley Willow Scrub (CDFW 2024). None of these Natural Communities of Special Concern were observed within the BSA; therefore, a discussion of these Natural Communities of Special Concern will not be included in this report.

4.1.1 Discussion of Aquatic Resources

A constructed stormwater drainage ditch that flows parallel to southbound SR99 is present within the BSA. A discussion of this aquatic resource is presented below. An aquatic resources delineation has not been conducted.

4.1.1.1 Survey Results

A constructed stormwater drainage ditch flows west through a culvert under SR99 from outside the northern limits of the BSA and begins flowing north to south parallel to southbound SR99. It flows through a culvert under Eaton Road and continues flowing south parallel to southbound SR99. It flows east through a culvert under SR99 out of the southern limits of the BSA. The drainage ditch appears to continue flowing south offsite parallel to northbound SR99 before turning east toward Godman Avenue and eventually entering a directed inlet at Godman Avenue. The majority of the northern section of the drainage ditch is concrete lined before passing under Eaton Road. The majority of the southern section of the drainage ditch is earthen after it passes under Eaton Road. The ditch is human created and maintained and does not exhibit an Ordinary High Water Mark (OHWM) or three parameters of a wetland.

4.1.1.2 Project Impacts

The ditch does not exhibit an OHWM or wetland characteristics and is not expected to be considered a water of the U.S. or State. The Project proposes to widen Eaton Road and extend the existing box culvert by approximately 5 feet to accommodate traffic lanes. The Project proposes to construct a free span concrete bridge over the drainage ditch near the SR99 southbound offramp before it meets Eaton Road.

4.1.1.3 Avoidance and Minimization Efforts/Compensatory Mitigation

There are no potential waters of the U.S./State in the BSA, so no avoidance and minimization measures (AMMs) are proposed.

4.2 Special-Status Plant Species

Plants are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the presence of habitat required by the special-status plants occurring on site. No special-status plants were found to be present within the BSA during the reconnaissance site visit; however, protocol-level surveys have not been conducted. The BSA supports potential habitat for four special-status plants, based on the literature review and findings from the reconnaissance site survey (Table 1). The following section provides a brief discussion of the four potentially occurring special-status plant within the BSA.

4.2.1 Discussion of Butte County Calycadenia

Butte County calycadenia (*Calycadenia oppositifolia*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is an herbaceous annual that occurs on volcanic, granitic, and serpentinite areas of chaparral, cismontane woodland, lower montane coniferous forest, meadows, seeps, and valley and foothill grassland. Butte County calycadenia blooms from April through July and is known to occur at elevations ranging from 295 to 3,100 feet above MSL. This species is endemic to California; the current range is Butte County (CNPS 2024).

4.2.1.1 Survey Results

Butte County calycadenia was not observed within the BSA during the reconnaissance-level field assessment; however, protocol special-status plant surveys were not conducted within the BSA. There are no CNDDB occurrences of Butte County calycadenia within five miles of the BSA (CDFW 2024). The volcanic soils within the disturbed land cover type provide marginally suitable habitat for this species. Butte County calycadenia has habitat present within the BSA.

4.2.1.2 Project Impacts

The Project is not expected to impact special-status plants with the implementation of AMMs.

4.2.1.3 Avoidance and Minimization Efforts/Compensatory Mitigation

If construction activities may impact special-status plant habitat, floristic plant surveys would be conducted during the appropriate blooming period. All suitable habitat would be surveyed within the work area plus a 25-foot buffer according to accepted USFWS, CDFW, and CNPS protocols prior to construction. If no special-status plants are found within the Project site, no further measures pertaining to special-status plants are necessary.

If special-status plants are identified within 25 feet of the Project impact area, they shall be avoided, if feasible. Caltrans and appropriate regulatory agency (CDFW or USFWS) shall be notified, and an avoidance zone for special-status plant occurrences will be established and clearly demarcated prior to construction. The avoidance zones shall include the extent of the special-status plants plus a 25-foot buffer, unless otherwise determined by a qualified biologist in consultation with the appropriate regulatory agency and shall be maintained until the completion of construction. A qualified biologist/biological monitor shall be present if work must occur within the avoidance buffer to ensure special-status plants are not impacted by the work.

If avoidance is not feasible, appropriate mitigation measures for impacts would be determined in consultation with the appropriate regulatory agency and may include measures such as restoration or permanent preservation of onsite or offsite habitat for special-status plants and/or translocation of plants or seeds from impacted areas to unaffected habitats.

4.2.2 Spicate Calycadenia

Spicate calycadenia (*Calycadenia spicata*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.3 species. This species is an herbaceous annual that occurs on adobe, clay, disturbed, dry, gravelly, roadsides, opening, and rocky areas of cismontane woodland and valley and foothill grasslands. Spicate calycadenia blooms from March through September and is known to occur at elevations ranging from 130 to 4,595 feet above MSL. This species is endemic to

California; the current range includes Amador, Butte, Calaveras, El Dorado, Fresno, Kern, Nevada, Placer. Sacramento, San Joaquin, Stanislaus, Tulare, Tuolumne, and Yuba Counties (CNPS 2024).

4.2.2.1 Survey Results

Spicate calycadenia was not observed within the BSA during the reconnaissance-level field assessment; however, protocol special-status plant surveys were not conducted within the BSA. There are no CNDDB occurrences of spicate calycadenia within five miles of the BSA (CDFW 2024). The disturbed land cover type provides suitable habitat for this species. Spicate calycadenia has habitat present within the BSA.

4.2.2.2 Project Impacts

The Project is not expected to impact special-status plants with the implementation of AMMs.

4.2.2.3 Avoidance and Minimization Efforts/Compensatory Mitigation

Implement special-status plant survey AMMs from section 4.2.1.3.

4.2.3 Discussion of Red-Stemmed Cryptantha

Red-stemmed cryptantha (*Cryptantha rostellata*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is an herbaceous annual that occurs on gravelly, volcanic openings as well as roadsides, in cismontane woodland and valley and foothill grassland. Red-stemmed cryptantha blooms from April through June and is known to occur at elevations ranging from 130 to 2,625 feet above MSL. The current range of this species includes Butte, Colusa, Napa, and Sutter counties (CNPS 2024).

4.2.3.1 Survey Results

Red-stemmed cryptantha was not observed within the BSA during the reconnaissance-level field assessment; however, protocol special-status plant surveys were not conducted within the BSA. There are no CNDDB occurrences of red-stemmed cryptantha within five miles of the BSA (CDFW 2024). The gravelly roadsides with volcanic soils of the disturbed land cover type provide suitable habitat for this species. Red-stemmed cryptantha has habitat present within the BSA.

4.2.3.2 Project Impacts

The Project is not expected to impact special-status plants with the implementation of AMMs.

4.2.3.3 Avoidance and Minimization Efforts/Compensatory Mitigation

Implement special-status plant survey AMMs from section 4.2.1.3.

4.2.4 Discussion of Bidwell's Knotweed

Bidwell's knotweed (*Polygonum bidwelliae*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.3 species. This species is an herbaceous annual that occurs in volcanic soil in areas of chaparral, cismontane woodland, and valley and foothills grassland. Bidwell's knotweed blooms from April through July and is known to occur at elevations ranging from 195 to 3,935 feet above MSL. This species is endemic to California; its current range includes Butte, Shasta, and Tehama counties (CNPS 2024).

4.2.4.1 Survey Results

Bidwell's knotweed was not observed within the BSA during the reconnaissance-level field assessment; however, protocol special-status plant surveys were not conducted within the BSA. There are no CNDDB occurrences of Bidwell's knotweed within five miles of the BSA (CDFW 2024). The gravelly roadsides with volcanic soils of the disturbed land cover type provide suitable habitat for this species. Bidwell's knotweed has habitat present within the BSA.

4.2.4.2 Project Impacts

The Project is not expected to impact special-status plants with the implementation of AMMs.

4.2.4.3 Avoidance and Minimization Efforts/Compensatory Mitigation

Implement special-status plant survey AMMs from section 4.2.1.3.

4.3 Special-Status Animal Species

Animals are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring on site. No special-status animals were observed within the BSA during the site-reconnaissance visit; however, protocol surveys were not conducted for special-status animal species. The BSA supports potential habitat for one CESA listed animal, Swainson's hawk (*Buteo swainsoni*) and six non-listed special-status animal species (Table 1). The following sections discuss these species.

4.3.1 Discussion of Swainson's Hawk

The Swainson's hawk (*Buteo swainsoni*) is listed as a threatened species and are protected pursuant to the CESA. This species nests in North America (Canada, western U.S., and Mexico) and typically winters from South America north to Mexico. However, a small population has been observed wintering in the Sacramento-San Joaquin River Delta (Bechard et al. 2020). In California, the nesting season for Swainson's hawk ranges from mid-March to late August.

Swainson's hawks nest in tall trees in a variety of wooded communities including riparian, oak woodland, roadside landscape corridors, urban areas, and agricultural areas, among others. Foraging habitat includes open grassland, savannah, low-cover row crop fields, and livestock pastures. In the Central Valley, Swainson's hawks typically feed on a combination of California vole (*Microtus californicus*), California ground squirrel (*Otospermophilus beecheyi*), ring-necked pheasant (*Phasianus colchicus*), many passerine birds, and grasshoppers (*Melanopulus* species). Swainson's hawks are opportunistic foragers and will readily forage in association with agricultural mowing, harvesting, discing, and irrigating (Estep 1989). The removal of vegetative cover by such farming activities results in more readily available prey items for this species.

4.3.1.1 Survey Results

No Swainson's hawks were observed within the BSA during the reconnaissance-level field assessment; however, surveys were not conducted. There is one CNDDB occurrence of a Swainson's hawk within 5 miles of the BSA (CDFW 2024). The trees within the BSA provide nesting habitat for this species. Swainson's hawk has nesting habitat present in the BSA.

4.3.1.2 Project Impacts

With the implementation of AMMs, the Project is not expected to impact Swainson's hawk.

4.3.1.3 Avoidance and Minimization Efforts/Compensatory Mitigation

If Project activities are scheduled during the Swainson's hawk nesting season (March 1 to August 31), then prior to beginning work on the Project, a qualified biologist shall survey for Swainson's hawk nesting activity. The survey area shall include a 0.25-mile distance surrounding the Project Area. The qualified biologist shall conduct surveys according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000) or, if proposing an alternate survey methodology, shall submit the proposed survey timing and methods to CDFW for review and written approval prior to initiation of surveys. If Swainson's hawk nesting activity is observed during the survey, then the survey results shall be submitted to CDFW for review prior to starting Project activities. If the qualified biologist identifies nesting Swainson's hawks, then they shall recommend

a no disturbance buffer in coordination with CDFW, and the contractor shall implement the buffer under the supervision of a qualified biologist. Project activities shall be prohibited within the no disturbance buffer between March 1 to August 31, unless otherwise approved in writing by CDFW. The buffer shall be kept in place until after the qualified biologist confirms the young have fledged, are foraging independently, and the nest is no longer active for the season. If the qualified biologist determines that avoidance measures are insufficient to avoid take of the birds, their nest, or their eggs, all specific project activities shall cease, and Caltrans shall immediately consult with CDFW pursuant to California ESA.

4.3.2 Discussion of Nuttall's Woodpecker

The Nuttall's woodpecker (*Dryobates nuttallii*) is not listed and protected under either state or federal ESAs but is considered a USFWS BCC. They are resident from Siskiyou County south to Baja California. Nuttall's woodpeckers nest in tree cavities primarily within oak woodlands, but also can be found in riparian woodlands (Lowther et al. 2020). Breeding occurs from April through July.

4.3.2.1 Survey Results

Nuttall's woodpecker was not observed within the BSA during the reconnaissance-level field assessment; however, surveys were not conducted and habitat for these species is present within the BSA. There are no CNDDB occurrences of Nuttall's woodpecker within 5 miles of the BSA (CDFW 2024). The trees within the BSA provide nesting habitat for this species. Nuttall's woodpecker has potential to occur in the BSA.

4.3.2.2 Project Impacts

With the implementation of AMMs below, the Project is not expected to impact Nuttall's woodpecker.

4.3.2.3 Avoidance and Minimization Efforts/Compensatory Mitigation

Prior to construction activities between February 1 and September 1, the following measures are recommended to minimize potential impacts to special-status birds:

If Project activities are to occur during the nesting season (generally February 1 through August 31), conduct a preconstruction nesting bird survey of all suitable nesting habitat within 14 days of the commencement of Project activities. If there is a lapse in Project-related work of 14 days or longer, then an additional survey shall be conducted prior to resuming Project activities. The survey shall be conducted within a 500-foot radius of Project work areas for raptors and within a 100-foot radius for other nesting birds. If any active nests are observed, these nests shall be designated a sensitive area and protected by an avoidance buffer implemented by the contractor and under the supervision of a qualified biologist until a qualified biologist has determined that the young have fledged, are foraging independently, and the nest is no longer active. A Preconstruction Nesting Bird Survey Report will be prepared by a qualified biologist that

includes surveyors' names and qualifications, dates and times of surveys, methods, results, and recommendations. If there is a lapse in Project activities of 14 days or longer, then additional nesting bird survey(s) will be conducted.

4.3.3 Discussion of Yellow-Billed Magpie

The yellow-billed magpie (*Pica nuttalli*) is not listed pursuant to either the California or federal ESAs but is considered a USFWS BCC. This endemic species is a yearlong resident of the Central Valley and Coast Ranges from San Francisco Bay to Santa Barbara County. Yellow-billed magpies build large, bulky nests in trees in a variety of open woodland habitats, typically near grassland, pastures or cropland. Nest building begins in late January to mid-February, which may take up to 6 to 8 weeks to complete, with eggs laid from April through May, and fledging from May through June. The young leave the nest about 30 days after hatching. Yellow-billed magpies are highly susceptible to West Nile Virus, which may have been the cause of death to thousands of magpies during 2004-2006 (Koenig and Reynolds 2020).

4.3.3.1 Survey Results

Yellow-billed magpie was not observed within the BSA during the reconnaissance-level field assessment; however, surveys were not conducted and habitat for these species is present within the BSA. There are no CNDDB occurrences of yellow-billed magpie within 5 miles of the BSA (CDFW 2024). The trees within the BSA provide nesting habitat for this species. Yellow-billed magpie has potential to occur in the BSA.

4.3.3.2 Project Impacts

With the implementation of the AMMs in section 4.3.2.3, the Project is not expected to impact yellow-billed magpie.

4.3.3.3 Avoidance and Minimization Efforts/Compensatory Mitigation

Implement nesting bird preconstruction survey AMMs in section 4.3.2.3.

4.3.4 Discussion of Oak Titmouse

Oak titmouse (*Baeolophus inornatus*) are not listed and protected under either State or federal ESAs but are considered a USFWS BCC. Oak titmouse breeding range includes southwestern Oregon south through California's Coast, Transverse, and Peninsular ranges, western foothills of the Sierra Nevada, into Baja California; they are absent from the humid northwestern coastal region and the San Joaquin Valley (Cicero et al. 2020). They are found in dry oak or oak-pine woodlands but may also use scrub oaks or other brush near woodlands (Cicero et al. 2020). Nesting occurs during March through July.

4.3.4.1 Survey Results

Oak titmouse was not observed within the BSA during the reconnaissance-level field assessment; however, surveys were not conducted and habitat for these species is present within the BSA. There are no CNDDB occurrences of Nuttall's woodpecker within 5 miles of the BSA (CDFW 2024). The trees within the BSA provide nesting habitat for this species. Oak titmouse has potential to occur in the BSA.

4.3.4.2 Project Impacts

With the implementation of the AMMs in section 4.3.2.3, the Project is not expected to impact oak titmouse.

4.3.4.3 Avoidance and Minimization Efforts/Compensatory Mitigation

Implement nesting bird preconstruction survey AMMs in section 4.3.2.3.

4.3.5 Discussion of Bullock's Oriole

The Bullock’s oriole (*Icterus bullockii*) is not listed pursuant to either the California or federal ESAs but is currently a BCC according to the USFWS. In California, Bullock’s orioles are found throughout the state except the higher elevations of mountain ranges and the eastern deserts (Small 1994). They are found in riparian and oak woodlands where nests are built in deciduous trees, but may also use orchards, conifers, and eucalyptus trees (Flood et al. 2020). Nesting occurs from March through July.

4.3.5.1 Survey Results

Bullock's oriole was not observed within the BSA during the reconnaissance-level field assessment; however, surveys were not conducted and habitat for these species is present within the BSA. There are no CNDDB occurrences of Bullock's oriole within 5 miles of the BSA (CDFW 2024). The trees within the BSA provide nesting habitat for this species. Bullock's oriole has potential to occur in the BSA.

4.3.5.2 Project Impacts

With the implementation of the AMMs in section 4.3.2.3, the Project is not expected to impact Bullock's oriole.

4.3.5.3 Avoidance and Minimization Efforts/Compensatory Mitigation

Implement nesting bird preconstruction survey AMMs in section 4.3.2.3.

4.3.6 Discussion of Pallid Bat

The pallid bat (*Antrozous pallidus*) is not listed pursuant to either the federal or California ESAs; however, this species is considered an SSC by CDFW. The pallid bat is a large, light-colored bat with long, prominent ears and pink, brown, or grey wing and tail membranes. This species ranges throughout North America from the interior of British Columbia south to Mexico, and east to Texas. The pallid bat inhabits low elevation (below 6,000 feet) rocky arid deserts and canyonlands, shrub-steppe grasslands, karst formations, and higher elevation coniferous forest (Western Bat Working Group [WBWG] 2024). This species roosts alone or in groups in the crevices of rocky outcrops and cliffs, caves, mines, trees, and in various human structures such as bridges, and barns. Pallid bats are feeding generalists that glean a variety of arthropod prey from surfaces as well as capturing insects on the wing. Foraging occurs over grasslands, oak savannahs, ponderosa pine forests, talus slopes, gravel roads, lava flows, fruit orchards, and vineyards. Although this species utilizes echolocation to locate prey, they often use only passive acoustic cues. This species is not thought to migrate long distances between summer and winter sites (WBWG 2024).

4.3.6.1 Survey Results

Pallid bat and bat sign were not observed within the BSA during the reconaissance-level field assessment; however, a survey for bats was not conducted but potential day-roosting habitat was observed to be present within the BSA. There is one CNDDB occurrence of pallid bat within 5 miles of the BSA (CDFW 2024). Trees with cavities provide suitable day-roosting habitat for this species within the BSA. Pallid bat has the potential to occur within the BSA.

4.3.6.2 Project Impacts

With the implementation of the following AMMs, the Project is not expected to impact pallid bat.

4.3.6.3 Avoidance and Minimization Efforts/Compensatory Mitigation

- If trees are scheduled to be removed or trimmed, then a qualified bat biologist will conduct a bat habitat assessment for suitable bat roosting habitat prior to any construction activities. The habitat assessment should be conducted one year prior to the initiation of construction activities, if feasible, and no less than 30 days prior to the initiation of construction activities. If no suitable roosting habitat is identified, no further measures are necessary. If suitable roosting habitat and/or signs of bat use are identified during the assessment, the roosting habitat should be avoided to the extent possible.

- If avoidance of the identified bat roosting habitat is not feasible, then a qualified bat biologist will prepare a Bat Management Plan that will include specific avoidance and minimization measures to reduce impacts to roosting bats. The

Bat Management Plan will be submitted to the CalTrans biologist for approval prior to the removal of trees. The Project-specific Bat Management Plan shall include the requirement for an emergence and/or preconstruction survey for roosting bats, roost removal timing and methodology; and will include as necessary and appropriate the inclusion of acoustic monitoring, no-disturbance buffers, methods and materials for passive exclusion of bats, species-specific habitat replacement mitigation, and/or post-construction mitigation monitoring.

- Emergence surveys shall not be conducted during the bat inactive/hibernation period (typically October 15 through March 1, or when nighttime low temperatures are 45 degrees Fahrenheit or lower and rain is not over 0.5 inch in 24 hours), as bats are not detectable using emergence survey methods during their inactive period. If a maternity roost is located, that roost will remain undisturbed until after the maternity season (maternity season is typically April 15-August 31) or until a qualified biologist has determined the roost is no longer active.

- If tree removal/trimming occurs outside of the bat maternity season and outside of bat hibernation season, tree removal during the weather parameters described shall be conducted after bat exclusion has been installed and left in place for no less than three days prior to removal/trimming, or using the two-step tree removal methods described below:

    - As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that may reduce the likelihood of bats using the habitat.

    - Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat on habitat trees (or outer fronds in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats. If bats are observed during the two-step removal process, the biologist will be immediately notified, the tree will be left until the next day, and the biologist will inspect the tree to ensure the tree does not contain bats prior to disturbance. If bats remain the following day, CDFW will be notified and measures will be submitted, such as methods for passive bat exclusion, for written acceptance prior to implementation and tree disturbance.

- If bat roost mitigation is required, roost mitigation will be installed as far in advance of the bat maternity season as possible, but no less than 30 days prior to roost removal.

4.3.7 Discussion of Western Red Bat

The western red bat (*Lasiurus frantzii*) is not listed pursuant to either the California or federal ESAs; however, this species is considered an SSC by CDFW. The western red bat is easily distinguished from other western bat species by its distinctive red coloration. This species is broadly distributed, its range extending from southern British Columbia in Canada through Argentina and Chile in South America, and including much of the western United States. This solitary species day roosts primarily in the foliage of trees or shrubs in edge habitats bordering streams or open fields, in orchards, and occasionally urban areas. They may be associated with intact riparian habitat, especially with willows, cottonwoods, and sycamores. This species may occasionally utilize caves for roosting as well. They feed on a variety of insects, and generally begin to forage one 1 to two 2 hours after sunset. This species is considered highly migratory; however, the timing of migration and the summer ranges of males and females may be different. Winter behavior of this species is poorly understood (WBWG 2024).

4.3.7.1 Survey Results

Western red bat and bat sign were not observed within the BSA during the reconnaissance-level field assessment; however, a survey for bats was not conducted but day-roosting habitat was observed to be present within the BSA. There is one CNDDB occurrence of western red bat within 5 miles of the BSA (CDFW 2024). Trees provide suitable day-roosting habitat for this species within the BSA. Western red bat has the potential to occur within the BSA.

4.3.7.2 Project Impacts

With the implementation of the AMMs below, the Project is not expected to impact western red bat.

4.3.7.3 Avoidance and Minimization Efforts/Compensatory Mitigation

- If trees are scheduled to be removed or trimmed, then a qualified bat biologist will conduct a bat habitat assessment for suitable bat roosting habitat prior to any construction activities. The habitat assessment should be conducted one year prior to the initiation of construction activities, if feasible, and no less than 30 days prior to the initiation of construction activities. If no suitable roosting habitat is identified, no further measures are necessary. If suitable roosting habitat and/or signs of bat use are identified during the assessment, the roosting habitat should be avoided to the extent possible.

- If avoidance of the identified bat roosting habitat is not feasible, then a qualified bat biologist will prepare a Bat Management Plan that will include specific avoidance and minimization measures to reduce impacts to roosting bats. The Bat Management Plan will be submitted to the Caltrans biologist for approval prior to the removal of trees. The Project-specific Bat Management Plan shall include the requirement for an emergence and/or preconstruction survey for roosting bats, roost removal timing and methodology; and will include as necessary and appropriate the inclusion of acoustic monitoring, and no-disturbance buffers.

- Emergence surveys shall not be conducted during the bat inactive/hibernation period (typically October 15 through March 1, or when nighttime low temperatures are 45 degrees Fahrenheit or lower and rain is not over 0.5 inch in 24 hours), as bats are not detectable using emergence survey methods during their inactive period. If western red bat is determined by a qualified bat biologist to be roosting within the Project Area, the western red bat roosting habitat will remain undisturbed until after the maternity season (maternity season is typically April 15-August 31).

- If tree removal/trimming occurs outside of the bat maternity season and outside of bat hibernation season, tree removal during the weather parameters described shall be conducted using the two-step tree removal methods described below:

    - As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that may reduce the likelihood of bats using the habitat.

    - Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice, or exfoliating bark habitat on habitat trees (or outer fronds in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats. If western red bats are observed during the two-step removal process, work within the western red bat habitat shall immediately halt, and the qualified biologist and Caltrans biologist will be immediately notified. the remaining vegetation within the western red bat habitat will be left undisturbed for the remainder of the bat maternity season and will only be removed upon written acceptance from the Caltrans biologist.

5. Conclusions and Regulatory Determinations

5.1 Federal Endangered Species Act Consultation Summary

A list from the USFWS IPaC to determine what federally listed species and critical habitats have potential to occur in the vicinity of the BSA was requested and received on May 21, 2024 (USFWS 2024; Appendix A).

There are no federally listed species or critical habitat that are known to occur or have potential to occur within the BSA; therefore, no consultation with USFWS or NMFS is required.

5.2 California Endangered Species Act Summary

No State-listed species are known to occur within the BSA. However, one State-listed species, Swainson's hawk, has potential to occur within the BSA. Implementation of AMMs described in Section 4.3.1.3 will avoid or minimize impacts to Swainson's hawk, and no consultation with the CDFW is necessary for the Project at this time.

No other State-listed species were identified by various database searches with the potential to occur within the BSA.

5.3 Essential Fish Habitat Consultation Summary

No essential fish habitat or critical habitat are present within the BSA; no consultation with NMFS is required.

5.4 Wetlands and Other Waters Coordination Summary

There is a stormwater drainage ditch that doesn't support an OHWM or wetland characteristics present within the BSA. A formal aquatic resources delineation has not been conducted, but no aquatic resources that are potential waters of the U.S./State were observed during the reconnaissance site visit and none are expected to occur onsite. Therefore, no coordination with the applicable federal and state resource agencies for the Project is needed before construction begins.

5.5 Invasive Species

Plants on California Invasive Plant Council's California Invasive Plant Inventory were identified during the reconnaissance-level site assessment and are identified in Appendix C. In compliance with Executive Order (EO) 13112, and subsequent guidance from Federal Highway Administration), avoidance and minimization measures will be implemented to prevent the spread of weeds during construction and disturbed areas will be revegetated with native species appropriate to the area. Management measures may include, but are not limited to, the following:

- Use of only certified weed-free straw or rice straw mulch;

- Use of native, non-invasive species or non-persistent hybrids in erosion control plantings to stabilize site conditions and prevent invasive species from colonizing;

- Minimize disturbance to the greatest extent possible;

- Ensure construction equipment is cleaned to remove debris that could contain invasive species or their seeds prior to transport to and from the construction area; and

- Restrict washing of construction vehicles and equipment to approved maintenance facilities or staging areas.

No substantial populations of invasive wildlife have been documented in the BSA. Therefore, no measures for invasive wildlife are proposed for the Project.

5.6 Other

5.6.1 Migratory Bird Treaty Act Birds

Native bird species and their nests are protected under the MBTA (16 USC 703-712). The MBTA states that all migratory birds and their parts, including eggs, nests, and feathers, are fully protected. The MBTA prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase, or barter, any migratory bird, its eggs, parts, and nests, except as authorized under a valid permit.

EO 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) directs Federal agencies “taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations to develop and implement a Memorandum of Understanding with the Fish and Wildlife Service that promotes the conservation of migratory bird populations.” In accordance with EO 13186 and the provisions of the MBTA, the measures described in Section 4.3.3.3 would be applied for this Project. With the implementation of the nesting bird and raptor AMM in section 4.3.2.3, the Project is not expected to impact nesting birds or raptors.

5.6.2 California Fish and Game Code

Sections 3503, 3513, and 3800 of the California Fish and Game Code specifically protect birds. Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 prohibits the take, possession, or destruction of any birds in the orders Strigiformes (owls) or Falconiformes (hawks and eagles), as well as their nests and eggs. Section 3513 prohibits the take or possession of any migratory nongame bird as designated in the MBTA. Section 3800 states that, with limited exceptions, it is unlawful to take any nongame bird, defined as all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. These provisions, along with the federal MBTA, serve to protect all nongame birds and their nests and eggs, except as otherwise provided in the code.

With the implementation of the nesting bird and raptor AMM in section 4.3.2.3, the Project is not expected to impact nesting birds or raptors.

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7. Appendices

Appendix A: Species Search Results

Appendix B: Representative Photographs

Appendix C: Plant Species Observed List

Appendix D: Wildlife Species Observed List

APPENDIX A Species Search Results

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Nord (3912178) OR Richardson Springs (3912177) OR Richardson Springs NW (3912188) OR Campbell Mound (3912187) OR Cohasset (3912186) OR Paradise West (3912176) OR Hamlin Canyon (3912166) OR Chico (3912167) OR Ord Ferry (3912168) OR Hamilton City (3912261) OR Foster Island (3912271) OR Vina (3912281))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAABF02020	***Spea hammondii*** western spadefoot	Proposed Threatened	None	G2G3	S3S4	SSC
AAABH01051	***Rana boylii pop. 1*** foothill yellow-legged frog - north coast DPS	None	None	G3T4	S4	SSC
AAABH01052	***Rana boylii pop. 2*** foothill yellow-legged frog - Feather River DPS	Threatened	Threatened	G3T2	S2	
ABNGA04010	***Ardea herodias*** great blue heron	None	None	G5	S4	
ABNGA04040	***Ardea alba*** great egret	None	None	G5	S4	
ABNKC01010	***Pandion haliaetus*** osprey	None	None	G5	S4	WL
ABNKC10010	***Haliaeetus leucocephalus*** bald eagle	Delisted	Endangered	G5	S3	FP
ABNKC19070	***Buteo swainsoni*** Swainson's hawk	None	Threatened	G5	S4	
ABNKD06071	***Falco peregrinus anatum*** American peregrine falcon	Delisted	Delisted	G4T4	S3S4	
ABNME03041	***Laterallus jamaicensis coturniculus*** California black rail	None	Threatened	G3T1	S2	FP
ABNRB02022	***Coccyzus americanus occidentalis*** western yellow-billed cuckoo	Threatened	Endangered	G5T2T3	S1	
ABNSB10010	***Athene cunicularia*** burrowing owl	None	None	G4	S2	SSC
ABPAU08010	***Riparia riparia*** bank swallow	None	Threatened	G5	S3	
ABPBW01114	***Vireo bellii pusillus*** least Bell's vireo	Endangered	Endangered	G5T2	S3	
ABPBXB0020	***Agelaius tricolor*** tricolored blackbird	None	Threatened	G1G2	S2	SSC
AFCAA01031	***Acipenser medirostris pop. 1*** green sturgeon - southern DPS	Threatened	None	G2T1	S1	SSC
AFCHA0205B	***Oncorhynchus tshawytscha pop. 7*** chinook salmon - Sacramento River winter-run ESU	Endangered	Endangered	G5T1Q	S2	
AFCHA0205L	***Oncorhynchus tshawytscha pop. 11*** chinook salmon - Central Valley spring-run ESU	Threatened	Threatened	G5T2Q	S2	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AFCHA0209K	***Oncorhynchus mykiss irideus pop. 11*** steelhead - Central Valley DPS	Threatened	None	G5T2Q	S2	SSC
AMACC01020	***Myotis yumanensis*** Yuma myotis	None	None	G5	S4	
AMACC02010	***Lasionycteris noctivagans*** silver-haired bat	None	None	G3G4	S3S4	
AMACC05032	***Lasiurus cinereus*** hoary bat	None	None	G3G4	S4	
AMACC05080	***Lasiurus frantzii*** western red bat	None	None	G4	S3	SSC
AMACC10010	***Antrozous pallidus*** pallid bat	None	None	G4	S3	SSC
AMACD02011	***Eumops perotis californicus*** western mastiff bat	None	None	G4G5T4	S3S4	SSC
AMAFJ01010	***Erethizon dorsatum*** North American porcupine	None	None	G5	S3	
ARAAD02030	***Emys marmorata*** western pond turtle	Proposed Threatened	None	G3G4	S3	SSC
ARACF12100	***Phrynosoma blainvillii*** coast horned lizard	None	None	G4	S4	SSC
ARADB36150	***Thamnophis gigas*** giant gartersnake	Threatened	Threatened	G2	S2	
CARA2441CA	***Central Valley Drainage Valley Floor River*** Central Valley Drainage Valley Floor River	None	None	GNR	SNR	
CARA2442CA	***Central Valley Drainage Fall Run Chinook Stream*** Central Valley Drainage Fall Run Chinook Stream	None	None	GNR	SNR	
CARA2443CA	***Central Valley Drainage Hardhead/Squawfish Stream*** Central Valley Drainage Hardhead/Squawfish Stream	None	None	GNR	SNR	
CTT44110CA	***Northern Hardpan Vernal Pool*** Northern Hardpan Vernal Pool	None	None	G3	S3.1	
CTT44132CA	***Northern Volcanic Mud Flow Vernal Pool*** Northern Volcanic Mud Flow Vernal Pool	None	None	G1	S1.1	
CTT52410CA	***Coastal and Valley Freshwater Marsh*** Coastal and Valley Freshwater Marsh	None	None	G3	S2.1	
CTT61410CA	***Great Valley Cottonwood Riparian Forest*** Great Valley Cottonwood Riparian Forest	None	None	G2	S2.1	
CTT61420CA	***Great Valley Mixed Riparian Forest*** Great Valley Mixed Riparian Forest	None	None	G2	S2.2	
CTT61430CA	***Great Valley Valley Oak Riparian Forest*** Great Valley Valley Oak Riparian Forest	None	None	G1	S1.1	
CTT63410CA	***Great Valley Willow Scrub*** Great Valley Willow Scrub	None	None	G3	S3.2	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ICBRA03010	***Branchinecta conservatio*** Conservancy fairy shrimp	Endangered	None	G2	S2	
ICBRA03030	***Branchinecta lynchi*** vernal pool fairy shrimp	Threatened	None	G3	S3	
ICBRA03150	***Branchinecta mesovallensis*** midvalley fairy shrimp	None	None	G2	S2S3	
ICBRA06010	***Linderiella occidentalis*** California linderiella	None	None	G2G3	S2S3	
ICBRA10010	***Lepidurus packardi*** vernal pool tadpole shrimp	Endangered	None	G3	S3	
ICMAL05E10	***Stygobromus gallawayae*** Gallaway's amphipod	None	None	G1	S1	
IICOL48011	***Desmocerus californicus dimorphus*** valley elderberry longhorn beetle	Threatened	None	G3T3	S3	
IICOL49010	***Anthicus sacramento*** Sacramento anthicid beetle	None	None	G4	S4	
IICOL49020	***Anthicus antiochensis*** Antioch Dunes anthicid beetle	None	None	G3	S3	
IICOL58010	***Atractelmis wawona*** Wawona riffle beetle	None	None	G3	S1S2	
IIHYM24260	***Bombus pensylvanicus*** American bumble bee	None	None	G3G4	S2	
IIHYM24480	***Bombus crotchii*** Crotch's bumble bee	None	Candidate Endangered	G2	S2	
NLTES34580	***Scytinium siskiyouense*** Siskiyou jellyskin lichen	None	None	G2G3	S1S2	1B.1
PDAST11061	***Balsamorhiza macrolepis*** big-scale balsamroot	None	None	G2	S2	1B.2
PDAST1P090	***Calycadenia spicata*** spicate calycadenia	None	None	G3?	S3	1B.3
PDAST5L0A1	***Lasthenia glabrata ssp. coulteri*** Coulter's goldfields	None	None	G4T2	S2	1B.1
PDBOR0A0Q0	***Cryptantha crinita*** silky cryptantha	None	None	G2	S2	1B.2
PDBRA0K1B1	***Cardamine pachystigma var. dissectifolia*** dissected-leaved toothwort	None	None	G3G5T2Q	S2	1B.2
PDCAM060C0	***Downingia pusilla*** dwarf downingia	None	None	GU	S2	2B.2
PDCAR0L0V0	***Paronychia ahartii*** Ahart's paronychia	None	None	G3	S3	1B.1
PDCON04012	***Calystegia atriplicifolia ssp. buttensis*** Butte County morning-glory	None	None	G5T3	S3	4.2

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDEUP0D150	***Euphorbia hooveri*** Hoover's spurge	Threatened	None	G1	S1	1B.2
PDFAB0F8R3	***Astragalus tener var. ferrisiae*** Ferris' milk-vetch	None	None	G2T1	S1	1B.1
PDFAB62010	***Rupertia hallii*** Hall's rupertia	None	None	G2G3	S2S3	1B.2
PDLAM18082	***Monardella venosa*** veiny monardella	None	None	G1	S1	1B.1
PDLIM02042	***Limnanthes floccosa ssp. californica*** Butte County meadowfoam	Endangered	Endangered	G4T1	S1	1B.1
PDLIM02043	***Limnanthes floccosa ssp. floccosa*** woolly meadowfoam	None	None	G4T4	S3	4.2
PDMAL0H0R3	***Hibiscus lasiocarpos var. occidentalis*** woolly rose-mallow	None	None	G5T3	S3	1B.2
PDMAL110P0	***Sidalcea robusta*** Butte County checkerbloom	None	None	G2	S2	1B.2
PDONA050J1	***Clarkia gracilis ssp. albicaulis*** white-stemmed clarkia	None	None	G5T3	S3	1B.2
PDONA050Q2	***Clarkia mildrediae ssp. mildrediae*** Mildred's clarkia	None	None	G3T3?	S3?	1B.3
PDPGN086UY	***Eriogonum umbellatum var. ahartii*** Ahart's buckwheat	None	None	G5T3	S3	1B.2
PDSCR0D482	***Castilleja rubicundula var. rubicundula*** pink creamsacs	None	None	G5T2	S2	1B.2
PDSCR0R060	***Gratiola heterosepala*** Boggs Lake hedge-hyssop	None	Endangered	G2	S2	1B.2
PMALI040Q0	***Sagittaria sanfordii*** Sanford's arrowhead	None	None	G3	S3	1B.2
PMCYP0N060	***Rhynchospora californica*** California beaked-rush	None	None	G1	S1	1B.1
PMCYP0N080	***Rhynchospora capitellata*** brownish beaked-rush	None	None	G5	S1	2B.2
PMJUN011L2	***Juncus leiospermus var. leiospermus*** Red Bluff dwarf rush	None	None	G2T2	S2	1B.1
PMLEM03020	***Wolffia brasiliensis*** Brazilian watermeal	None	None	G5	S2	2B.3
PMLIL0D1S0	***Calochortus syntrophus*** Callahan's mariposa-lily	None	None	G2	S2	1B.1
PMLIL0V060	***Fritillaria eastwoodiae*** Butte County fritillary	None	None	G3Q	S3	3.2
PMLIL0V0F0	***Fritillaria pluriflora*** adobe-lily	None	None	G2G3	S2S3	1B.2

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PMPOA3D020	***Imperata brevifolia*** California satintail	None	None	G3	S3	2B.1
PMPOA4G040	***Orcuttia pilosa*** hairy Orcutt grass	Endangered	Endangered	G1	S1	1B.1
PMPOA4G050	***Orcuttia tenuis*** slender Orcutt grass	Threatened	Endangered	G2	S2	1B.1
PMPOA6N010	***Tuctoria greenei*** Greene's tuctoria	Endangered	Rare	G1	S1	1B.1
PMPOT03091	***Stuckenia filiformis ssp. alpina*** northern slender pondweed	None	None	G5T5	S2S3	2B.2

Record Count: 86

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

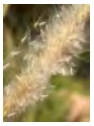
Search Results

51 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3912178:3912177:3912188:3912187:3912186:3912176:3912166:3912167:3912168:3912261:3912271:3912281]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Allium sanbornii var. *sanbornii*	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	None	None	G4T4?	S3S4	4.2		1994-01-01	 ©2018 Steven Perry
Astragalus pauperculus	depauperate milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 ©2012 Tim Kellison
Astragalus tener var. *ferrisiae*	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	None	None	G2T1	S1	1B.1	Yes	1994-01-01	No Photo Available
Azolla microphylla	Mexican mosquito fern	Azollaceae	annual/perennial herb	Aug	None	None	G5	S4	4.2		1994-01-01	No Photo Available
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©1998 Dean Wm. Taylor
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
Calochortus syntrophus	Callahan's mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jun	None	None	G2	S2	1B.1	Yes	2001-01-01	 ©2018 Julie Kierstead Nelson
Calycadenia oppositifolia	Butte County calycadenia	Asteraceae	annual herb	Apr-Jul	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available

Calycadenia spicata	spicate calycadenia	Asteraceae	annual herb	May-Sep	None	None	G3?	S3	1B.3		2023-04-05	 © 2023 Christopher Bronny
Calystegia atriplicifolia ssp. *buttensis*	Butte County morning-glory	Convolvulaceae	perennial rhizomatous herb	May-Jul	None	None	G5T3	S3	4.2	Yes	1984-01-01	 ©2018 Sierra Pacific Industries
Cardamine pachystigma var. *dissectifolia*	dissected-leaved toothwort	Brassicaceae	perennial rhizomatous herb	Feb-May	None	None	G3G5T2Q	S2	1B.2	Yes	1988-01-01	No Photo Available
Castilleja rubicundula var. *rubicundula*	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	None	None	G5T2	S2	1B.2	Yes	2001-01-01	 ©2010 Vernon Smith
Clarkia gracilis ssp. *albicaulis*	white-stemmed clarkia	Onagraceae	annual herb	May-Jul	None	None	G5T3	S3	1B.2	Yes	1994-01-01	No Photo Available
Clarkia mildrediae ssp. *mildrediae*	Mildred's clarkia	Onagraceae	annual herb	May-Aug	None	None	G3T3?	S3?	1B.3	Yes	1974-01-01	No Photo Available
Claytonia palustris	marsh claytonia	Montiaceae	perennial herb	May-Oct	None	None	G4	S4	4.3	Yes	1988-01-01	 ©2006 Dean Wm. Taylor, Ph.D.
Cryptantha crinita	silky cryptantha	Boraginaceae	annual herb	Apr-May	None	None	G2	S2	1B.2	Yes	1980-01-01	 ©2009 Sierra Pacific Industries
Cryptantha rostellata	red-stemmed cryptantha	Boraginaceae	annual herb	Apr-Jun	None	None	G4	S3	4.2		2018-06-26	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980-01-01	 © 2013 Aaron Arthur

Eriogonum umbellatum var. *ahartii*	Ahart's buckwheat	Polygonaceae	perennial herb	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	2010-11-29	No Photo Available
Erythranthe glaucescens	shield-bracted monkeyflower	Phrymaceae	annual herb	Feb-Aug(Sep)	None	None	G3G4	S3S4	4.3	Yes	1974-01-01	 Neal Kramer 2020
Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	annual herb	Jul-Sep(Oct)	FT	None	G1	S1	1B.2	Yes	1974-01-01	No Photo Available
Fritillaria eastwoodiae	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3Q	S3	3.2		1974-01-01	 ©2009 Sierra Pacific Industries
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2G3	S2S3	1B.2	Yes	1974-01-01	 © 2015 Steve Matson
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974-01-01	 © 2020 Steven Perry
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	None	None	G3	S3	2B.1		2006-12-26	 © 2020 Matt C. Berger

Juncus leiospermus var. *leiospermus*	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	None	None	G2T2	S2	1B.1	Yes	1974-01-01  ©2016 Dylan Neubauer
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1		1994-01-01  © 2013 Keir Morse
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01  ©2000 John Game
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	Yes	1994-01-01  © 2010 Aaron Schusteff
Lilium humboldtii ssp. *humboldtii*	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	None	None	G4T3	S3	4.2	Yes	1994-01-01  © 2008 Sierra Pacific Industries
Limnanthes floccosa ssp. *californica*	Butte County meadowfoam	Limnanthaceae	annual herb	Mar-May	FE	CE	G4T1	S1	1B.1	Yes	1980-01-01  © 2007 George W. Hartwell
Limnanthes floccosa ssp. *floccosa*	woolly meadowfoam	Limnanthaceae	annual herb	Mar-May(Jun)	None	None	G4T4	S3	4.2		1980-01-01  © 2021 Scot Loring
Monardella venosa	veiny monardella	Lamiaceae	annual herb	May-Jul	None	None	G1	S1	1B.1	Yes	1984-01-01  © 2007 George W. Hartwell
Navarretia heterandra	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4	S4	4.3		1974-01-01  ©2021 Scot Loring

Navarretia nigelliformis ssp. *nigelliformis*	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	None	None	G4T3	S3	4.2	Yes	2007-04-02	 © 2008 Zoya Akulova
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	FE	CE	G1	S1	1B.1		1974-01-01	No Photo Available
Orcuttia pilosa	hairy Orcutt grass	Poaceae	annual herb	May-Sep	FE	CE	G1	S1	1B.1	Yes	1980-01-01	 © 2003 George W. Hartwell
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974-01-01	 © 2013 Justy Leppert
Paronychia ahartii	Ahart's paronychia	Caryophyllaceae	annual herb	Feb-Jun	None	None	G3	S3	1B.1	Yes	1988-01-01	 © 2004 Carol W. Witham
Polygonum bidwelliae	Bidwell's knotweed	Polygonaceae	annual herb	Apr-Jul	None	None	G4	S4	4.3	Yes	1974-01-01	 ©2020 Neal Kramer
Rhynchospora californica	California beaked-rush	Cyperaceae	perennial rhizomatous herb	May-Jul	None	None	G1	S1	1B.1	Yes	1974-01-01	 © 2004 Steve Matson
Rhynchospora capitellata	brownish beaked-rush	Cyperaceae	perennial herb	Jul-Aug	None	None	G5	S1	2B.2		1974-01-01	 ©2004 Dean Wm. Taylor
Rupertia hallii	Hall's rupertia	Fabaceae	perennial herb	Jun-Aug(Sep)	None	None	G2G3	S2S3	1B.2	Yes	1994-01-01	No Photo Available

Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
Scytinium siskiyouense	Siskiyou jellyskin lichen	Collemataceae	foliose lichen		None	None	G2G3	S1S2	1B.1		2022-10-13	No Photo Available
Sidalcea robusta	Butte County checkerbloom	Malvaceae	perennial rhizomatous herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2010 George W Hartwell
Stuckenia filiformis ssp. *alpina*	northern slender pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	None	None	G5T5	S2S3	2B.2		1994-01-01	 Dana York (2016)
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	FE	CR	G1	S1	1B.1	Yes	1974-01-01	 ©2008 F. Gauna
Wolffia brasiliensis	Brazilian watermeal	Araceae	perennial herb (aquatic)	Apr-Dec	None	None	G5	S2	2B.3		2001-01-01	 © 2021 Scot Loring

Showing 1 to 51 of 51 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 21 May 2024].

IPaC resource list

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

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

Location

Butte County, California

Local office

Sacramento Fish And Wildlife Office

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

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

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. 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.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
Western Spadefoot Spea hammondii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

Insects

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

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Butte County Meadowfoam *Limnanthes floccosa ssp. californica* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4223	Endangered
Greene's Tuctoria *Tuctoria greenei* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1573	Endangered

Hoover's Spurge Chamaesyce hooveri — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/3019

Lassics Lupine Lupinus constancei — Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/7976

Slender Orcutt Grass Orcuttia tenuis — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/1063

Critical habitats

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

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

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

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

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

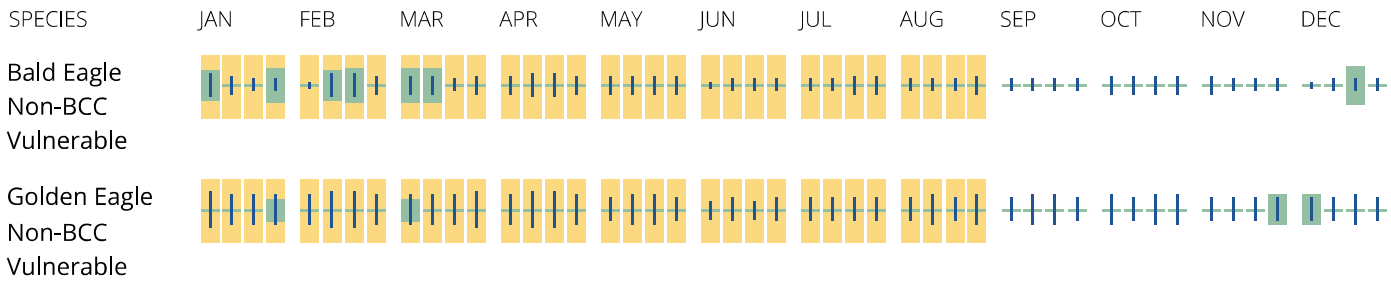
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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

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

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

probability of presence breeding season survey effort no data



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31

Belding's Savannah Sparrow Passerculus sandwichensis beldingi — Breeds Apr 1 to Aug 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8

Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

Cassin's Finch Haemorhous cassinii — Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9462

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Spinus lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Northern Harrier *Circus hudsonius* — Breeds Apr 1 to Sep 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8350

Nuttall's Woodpecker *Dryobates nuttallii* — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse *Baeolophus inornatus* — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

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

Santa Barbara Song Sparrow *Melospiza melodia graminea* — Breeds Mar 1 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/5513

Tricolored Blackbird *Agelaius tricolor* — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Western Screech-owl *Megascops kennicottii cardonensis* — Breeds Mar 1 to Jun 30
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Wrentit *Chamaea fasciata* — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli* — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

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

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

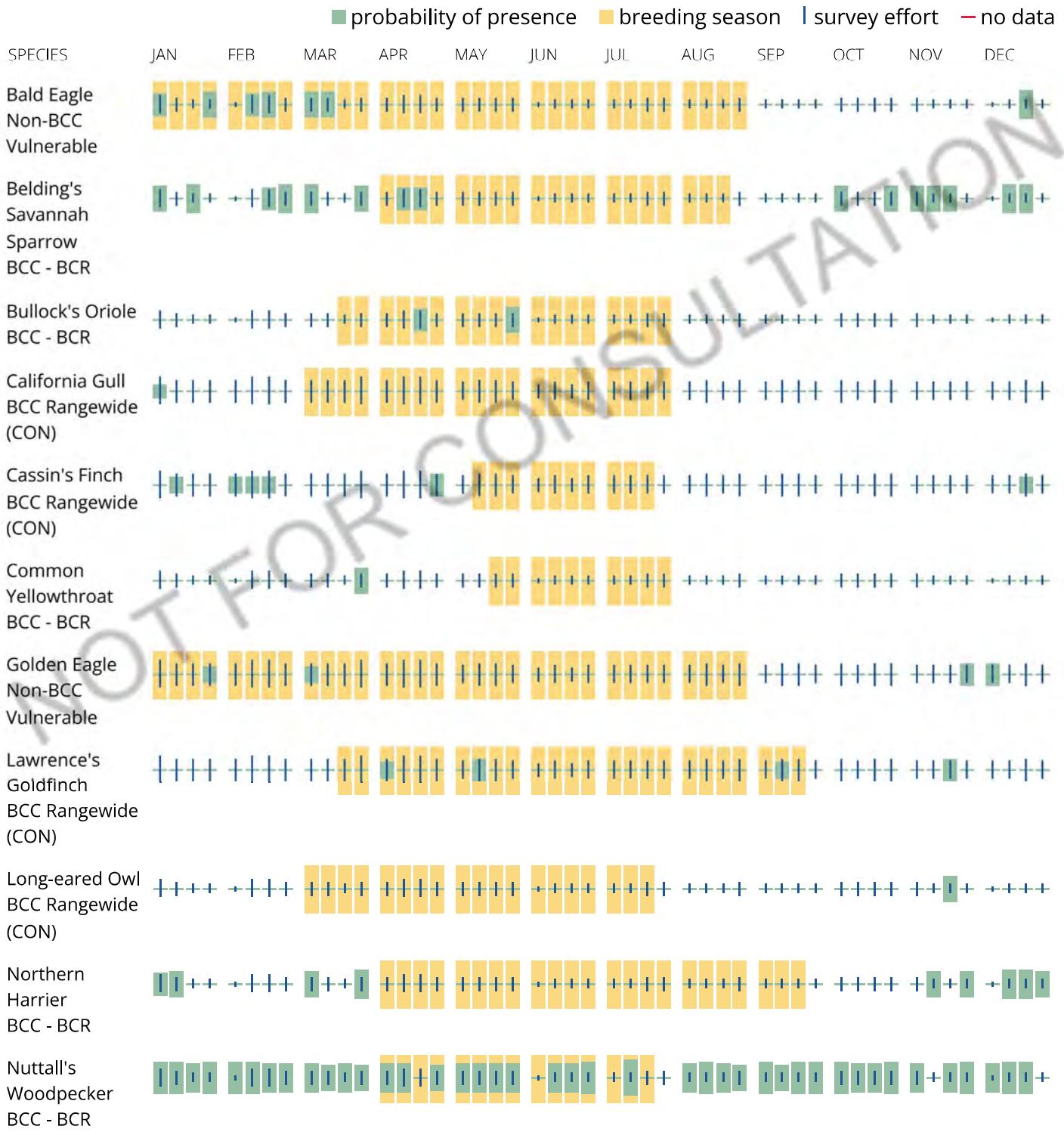
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

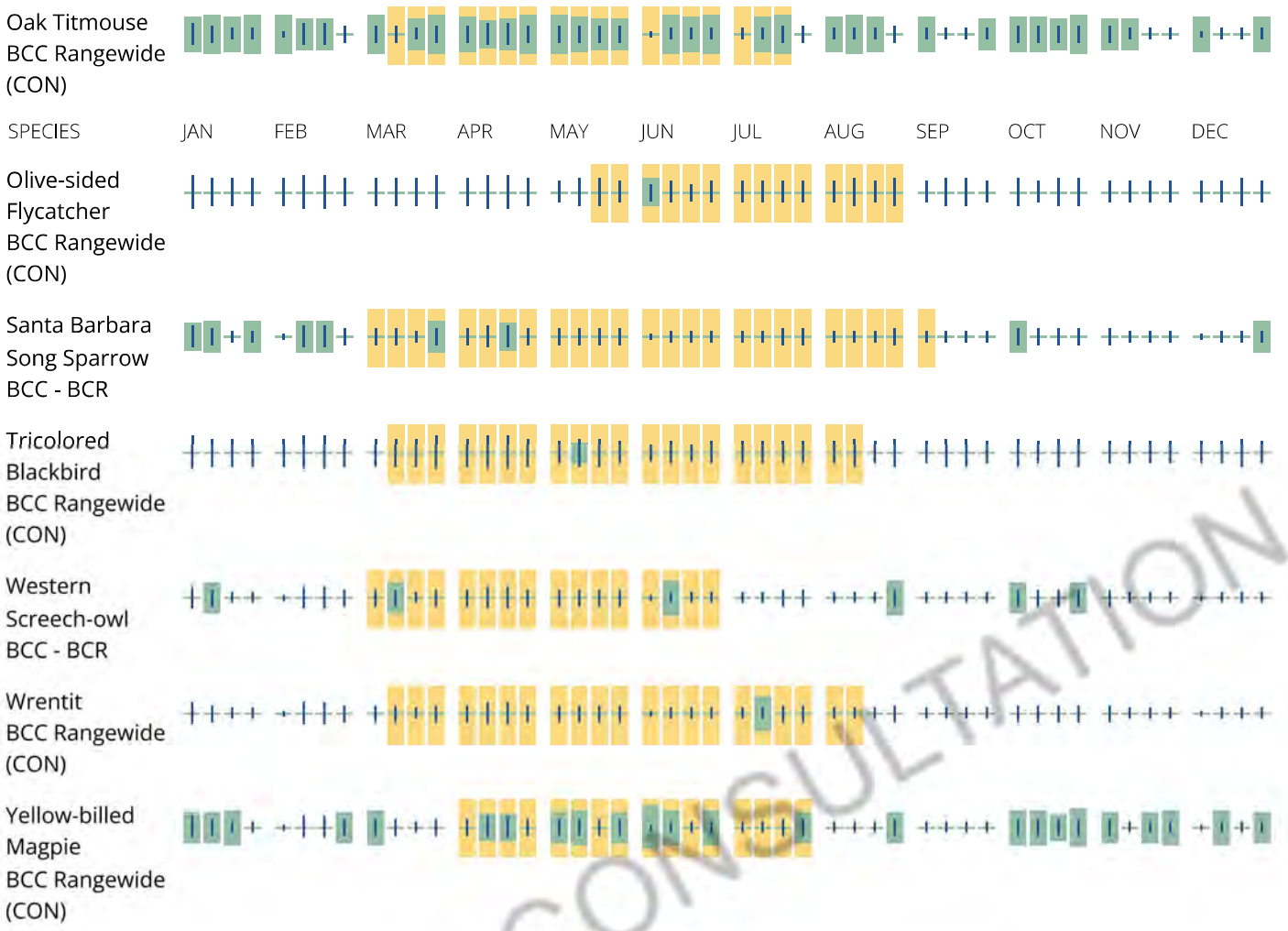
No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

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





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

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

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

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

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

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

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R5UBFx

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

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

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

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

Data exclusions

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

Data precautions

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

Quad Name **Nord**
Quad Number **39121-G8**

ESA Anadromous Fish

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

ESA Anadromous Fish Critical Habitat

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

ESA Marine Invertebrates

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

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

ESA Whales

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

ESA Pinnipeds

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

Essential Fish Habitat

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

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Richardson Springs**
Quad Number **39121-G7**

ESA Anadromous Fish

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

ESA Anadromous Fish Critical Habitat

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

ESA Marine Invertebrates

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

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

ESA Whales

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

ESA Pinnipeds

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

Essential Fish Habitat

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

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

APPENDIX B Representative Site Photographs

Photo 1. Looking east toward southbound on and off ramp.

Photo 2. Looking south toward southbound on ramp.

Photo 3. Section south of Eaton Rd between southbound SR99 and on ramp.

Photo 4. Section north of Eaton Rd between southbound SR99 and off ramp.

Photo 5. Looking north toward southbound SR99 off ramp.

Photo 6. Looking south toward Eaton Rd at area between southbound SR 99 and off ramp.

Photo 7. Sycamore with crevice, suitable day-roosting bat habitat.

Photo 8. Looking southeast toward area between northbound SR99 off ramp.

Photo 9. Looking south toward southbound SR99

Photo 10. Looking south where drainage turns east and crosses under SR99

Photo 11. Drainage adjacent to southbound SR99 offramp.

Photo 12. Looking south where drainage turns west and emerges from crossing under SR99.

APPENDIX C Plant Species Observed List

Plants Observed Onsite (May 24, 2024)

Scientific Name	Common Name
Avena sp.*^	Wild oat
*Bromus diandrus**^	Ripgut brome
*Bromus hordeaceus**^	Soft brome
*Callistemon citrinus**	Crimson bottlebrush
*Centaurea solstitialis**^	Yellow star-thistle
*Cichorium intybus**	Chickory
*Convolvulus arvensis**	Field bindweed
Croton setiger	Turkey mullein
*Erodium botrys**	Broadleaf filaree
Eschscholzia californica	California poppy
*Festuca perennis**^	Annual ryegrass
*Hedera helix**^	English ivy
*Hordeum murinum**^	Foxtail barley
Juglans hindsii	Northern California black walnut
*Lactuca serriola**	Prickly lettuce
*Leontodon saxatillis**	Lesser hawkbit
*Ligustrum japonicum**^	Texas privet
*Malva parviflora**	Cheeseweed mallow
*Nerium oleander**	Oleander
Pinus sp.	Pine species
*Pistacia chinensis**	Chinese pistache
*Plantago lanceolata**^	English plantain
Platanus racemosa	California sycamore
*Prunus dulcis**	Almond
Quercus lobata	Valley oak
*Raphanus raphanistrum**	Jointed charlock
*Rumex crispus**^	Curly dock
*Sorghum halepense**	Johnsongrass
*Torilis arvensis**^	Field hedge parsley
*Triadica sebifera**^	Chinese tallowtree
*Trifolium hirtum**^	Rose clover
*Vicia villosa**	Hairy vetch
Xanthium orientale	Common cocklebur

* - Non-native Species
^ - California Invasive Plant Inventory plant

APPENDIX D Wildlife Species Observed List

Wildlife Observed List (May 24, 2024)

Common Name	Scientific Name
Birds	
Mourning Dove	*Zenaida macroura*
Red-shouldered Hawk	*Buteo lineatus*
Black Phoebe	*Sayornis nigricans*
California Scrub-Jay	*Aphelocoma californica*
Northern Mockingbird	*Mimus polyglottos*
European Starling*	*Sturnus vulgaris*
House Sparrow*	*Passer domesticus*
Reptiles	
Western fence lizard	*Sceloporus occidentalis*

* Non-native Species