

Biological Resources Assessment

New Ridgeview High School Project

Butte County, California

Prepared For:

Paradise Unified School District

CLIENT REVIEW DRAFT



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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LIST OF ACRONYMS AND ABBREVIATIONS

BA	Biological assessment
BCC	Birds of conservation concern
BO	Biological opinion
BRA	Biological resources assessment
CARI	California Aquatic Resource Inventory
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ESA	Endangered Species Act
MBTA	Migratory Bird Treaty Act
NAD	North American Datum
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
Project	New Ridgeview High School Project

LIST OF ACRONYMS AND ABBREVIATIONS

PUSD	Paradise Unified School District
RWQCB	Regional Water Quality Control Board
SSC	CDFW Species of Special Concern
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group

1.0 INTRODUCTION

On behalf of the Paradise Unified School District (PUSD), ECORP Consulting, Inc. conducted a biological resources assessment (BRA) for the New Ridgeview High School Project (Project) located in the town of Paradise, Butte County, California. The purpose of the assessment was to collect information on the biological resources present or with the potential to occur in the Project Study Area, assess potential biological impacts related to Project activities, and identify potential mitigation measures to inform and support the Project's California Environmental Quality Act (CEQA) documentation for biological resources.

1.1 Project Location

The Project is located east of the Paradise High School campus on Maxwell Drive, between Fairview Drive and Pleasant Lane (Figure 1. *Project Location and Vicinity*). The site corresponds to a portion of Section 14, Township 22 North, and Range 3 East of the "Paradise East, California" 7.5-minute quadrangle (North American Datum [NAD]27) (U.S. Geological Survey [USGS] 1994). The approximate center of the Project is located at latitude 39.762264° (North American Datum [NAD]83) and longitude -121.611785° (NAD83) within the Butte Creek Watershed (Hydrologic Unit Code #18020158) (Natural Resources Conservation Service [NRCS], USGS, and U.S. Environmental Protection Agency [USEPA] 2018).

1.2 Project Description

The PUSD is proposing to construct a new high school facility with parking, totaling 17,000 square feet, including six classrooms, administration, and 135 parking lot spots.

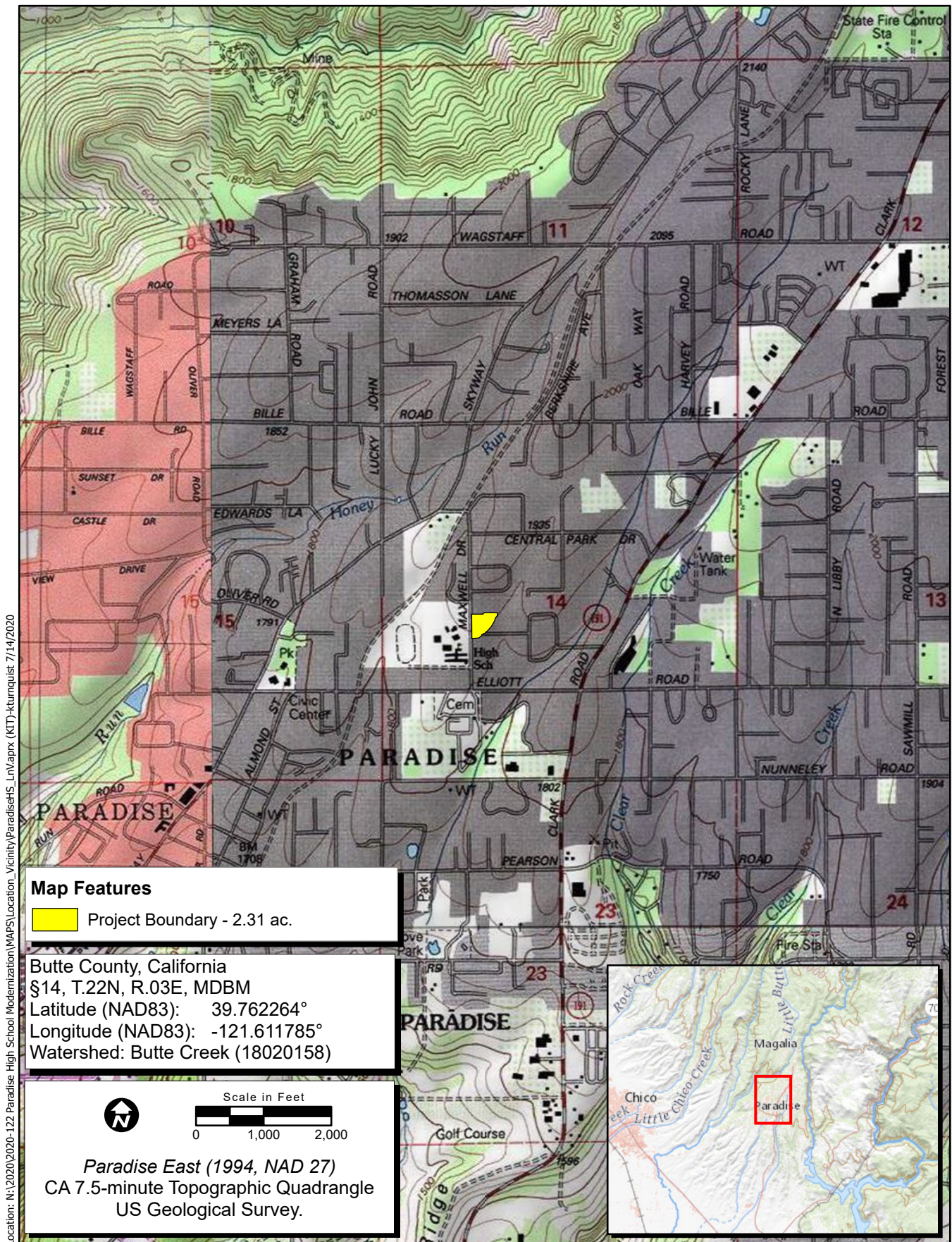
1.3 Purpose of This Biological Resources Assessment

The purpose of this BRA is to assess the potential for occurrence of special-status plant and animal species and their habitats, and sensitive habitats such as wetlands and riparian communities within the Project Study Area. This assessment includes information generated from the reconnaissance-level site assessment and does not include a wetland delineation performed according to U.S. Army Corps of Engineers (USACE) standards, nor does it include determinate field surveys for special-status plant and animal species.

This assessment includes a preliminary analysis of impacts on biological resources anticipated to result from the Project as presently defined. The mitigation recommendations presented in this assessment are based on a preliminary impact analysis, a review of existing literature, and the results of the site reconnaissance survey.

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 § 15380 of the CEQA Guidelines;



Map Date: 7/14/2020
 Sources:

- are identified as a species of special concern (SSC) 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 considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California", "plants about which more information is needed", or "plants of limited distribution – a watch list" (i.e., species with a California Rare Plant Rank [CRPR] of 1B, 2, 3, or 4);
- are plants listed as rare under the California Native Plant Protection Act (NPPA) (California Fish and Game Code, § 1900 et seq.); or
- are fully protected in California in accordance with the California Fish and Game Code, § 3511 (birds), § 4700 (mammals), § 5050 (amphibians and reptiles), and § 5515 (fishes).

2.0 REGULATORY SETTING

2.1 Federal Regulations

2.1.1 Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by USFWS and the National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits, without authorization, 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 under federal jurisdiction and removing, cutting, digging up, damaging, or destroying any listed plant in any other area in knowing violation of state law (16 U.S. Code [USC] 1538).

Under Section 7 of the ESA, federal agencies are required to consult with USFWS and/or NMFS if their actions, including permit approvals and 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), USFWS and NMFS 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 the issuance of incidental take permits where no other federal actions are necessary provided a habitat conservation plan is developed.

Section 7 Consultation

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. 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 adverse modifications will require formal consultation with USFWS or NMFS. If adverse effects are likely,

the federal lead agency must prepare a biological assessment (BA) for the purpose of analyzing the potential effects of the proposed project on listed species and critical habitat to establish and justify an "effect determination." Often a third-party, non-federal applicant drafts the BA for the lead federal agencies. The USFWS/NMFS reviews the BA; if it concludes that the project may adversely affect a listed species or its habitat, it prepares a BO. The BO may recommend "reasonable and prudent alternatives" to the project to avoid jeopardizing or adversely modifying habitat.

Critical Habitat

Critical Habitat is defined in Section 3 of the federal ESA as:

1. the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection; and
2. specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

For inclusion in a Critical Habitat designation, habitat within the geographical area occupied by the species at the time it was listed must first have features essential to the conservation of the species (16 USC 1533). Critical Habitat designations identify, to the extent known and using the best scientific data available, habitat areas that provide essential life cycle needs of the species (areas on which are found the primary constituent elements). Primary constituent elements are the physical and biological features that are essential to the conservation of the species and that may require special management considerations or protection. These include but are not limited to the following:

1. Space for individual and population growth and for normal behavior.
2. Food, water, air, light, minerals, or other nutritional or physiological requirements.
3. Cover or shelter.
4. Sites for breeding, reproduction, or rearing (or development) of offspring.
5. Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. 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 under the MBTA, 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 nongame birds in § 3800, migratory birds in § 3513, and birds of prey in § 3503.5 of the California Fish and Game Code.

2.1.3 Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into “Waters of the United States” without a permit from the USACE. The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3 7b). The USEPA also has authority over wetlands, including the authority to veto permits issued by USACE under CWA Section 404(c).

Projects involving activities that have no more than minimal individual and cumulative adverse environmental effects may meet the conditions of one of the Nationwide Permits already issued by USACE (Federal Register 82:1860, January 6, 2017). If impacts on wetlands could be substantial, an individual permit is required. 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).

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

The California ESA (California Fish and Game Code §§ 2050-2116) protects species of fish, wildlife, and plants listed by the State as endangered or threatened. Species identified as candidates for listing may also receive protection. Section 2080 of the California ESA prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit. 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 projects under permits issued by CDFW.

2.2.2 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 federal and/or California ESAs. Fully protected species are identified in the California Fish and Game Code § 4700 for mammals, § 3511 for birds, § 5050 for reptiles and amphibians, and § 5515 for fish.

These sections of the California Fish and Game Code provide that fully protected species may not be taken or possessed at any time, including prohibition of CDFW from issuing incidental take permits for fully protected species under the California ESA. CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit, and may allow incidental take for lawful activities carried out under an approved Natural Community Conservation Plan within which such species are covered.

2.2.3 Native Plant Protection Act

The NPPA of 1977 (California Fish and Game Code §§ 1900-1913) was established with the intent to “preserve, protect and enhance rare and endangered plants in this state.” The NPPA is administered by CDFW. The Fish and Game Commission has the authority to designate native plants as “endangered” or “rare.” The NPPA prohibits the take of plants listed under the NPPA, but the NPPA contains a number of exemptions to this prohibition that have not been clarified by regulation or judicial rule. In 1984, the California ESA brought under its protection all plants previously listed as endangered under NPPA. Plants listed as rare under NPPA are not protected under the California ESA, but are still protected under the provisions of NPPA. The Fish and Game Commission no longer lists plants under NPPA, reserving all listings to the California ESA.

2.2.4 California Fish and Game Code Special Protections for Birds

In addition to protections contained within the California ESA and California Fish and Game Code § 3511 described above, the California Fish and Game Code includes a number of sections that specifically protect certain birds.

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 California Fish and Game Commission or a mitigation plan approved by CDFW for mining operations.

Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.

Section 3503.5 protects birds of prey (which includes eagles, hawks, falcons, kites, ospreys, and owls) and prohibits the take, possession, or destruction of any birds and their nests

Section 3505 makes it unlawful to take, sell, or purchase egrets, ospreys, and several exotic non-native species, or any part of these birds.

Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA.

2.2.5 Lake or Streambed Alteration Agreements

Section 1602 of the California Fish and Game Code requires individuals or agencies to provide a Notification of Lake or Streambed Alteration 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, proposed measures to protect affected fish and wildlife resources. The final proposal mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alternation Agreement.

2.2.6 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 stormwater 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 water 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, that are not regulated by 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.

2.2.7 California Environmental Quality Act

In accordance with CEQA Guidelines § 15380, a species or subspecies not specifically protected under the federal or California ESAs or NPPA may be considered endangered, rare, or threatened for CEQA review purposes if the species meets certain criteria specified in the Guidelines. These criteria include definitions similar to definitions used in the federal ESA, California ESA, and NPPA. Section 15380 was included in the CEQA Guidelines primarily to address situations in which a project under review may have a significant effect on a species that has not been listed under the federal ESA, California ESA, or NPPA, but that may meet the definition of endangered, rare, or threatened. Animal species identified as SSC by CDFW and plants identified by the CNPS as rare, threatened, or endangered may meet the CEQA definition of rare or endangered.

Species of Special Concern

SSC are defined by the CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the federal ESA, California ESA, or the California Fish and Game Code, but currently satisfies 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 (nonscyclical) 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; and
- SSC are typically associated with habitats that are threatened.

Depending on the policy of the lead agency, projects that result in substantial impacts to SSC may be considered significant under CEQA.

U.S. Fish and Wildlife Service 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 2008) 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’s highest conservation priorities. Depending on the policy of the lead agency, projects that result in substantial impacts to BCC may be considered significant under CEQA.

California Rare Plant Ranks

The CNPS maintains the Inventory of Rare and Endangered Plants of California (CNPS 2019), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, and/or low populations. Plant species meeting one of these criteria are assigned to one of six CRPRs. 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, 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 percent of occurrences threatened/high degree and immediacy of threat).
- Threat Rank 0.2 – Moderately threatened in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat).
- Threat Rank 0.3 – Not very threatened in California (<20 percent 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 2018).

Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, or 2, and 3 are typically considered significant under CEQA Guidelines § 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 4 and at the discretion of the CEQA lead agency.

California Environmental Quality Act Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant. Generally, impacts to listed (rare, threatened, or endangered) species are considered significant. 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, § 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.

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 under CEQA. The reason for this is that 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.

3.0 METHODS

3.1 Literature Review

The following resources were reviewed to determine the special-status species that had been previously documented within or in the vicinity of the Project site

- CDFW CNDDDB data for the Project site as well as a five-mile radius surrounding the Project site (CDFW 2020);
- USFWS list of species and other resources under the USFWS jurisdiction that are known or expected to be in or near the Project area (USFWS 2020); and
- CNPS' electronic Inventory of Rare and Endangered Plants of California was queried for the "Richardson Springs, California" 7.5-minute quadrangle and the nine surrounding USGS quadrangles (CNPS 2020).

3.2 Field Surveys Conducted

ECORP biologist Keith Kwan conducted a reconnaissance-level site assessment on July 16, 2020. The findings of this site assessment have been incorporated into this BRA. During the field survey, biological communities occurring onsite were characterized and the following biological resource information was collected:

- Vegetation communities within the Project site;
- Plant and animal species directly observed;
- Animal evidence (e.g., scat, tracks);
- Existing active raptor nest locations; and
- Burrows and any other special habitat features;

In addition, soil types were identified using the NRCS Web Soil Survey (NRCS 2020).

3.3 Special-Status Species Considered for the Project

Special-status plant and animal species that resulted from database searches were evaluated for their potential to occur onsite. Species that are tracked in the CNDDDB but do not have any other special status, as defined above, were not included in this assessment. Species' potential to occur within the Project site was assessed based on the following criteria:

- **Present** - Species was observed during the site visit or is known to occur within the Project site based on documented occurrences within the CNDDDB or other literature.
- **Potential to Occur** - Habitat (including soils and elevation requirements) for the species occurs within the Project site.

- **Low Potential to Occur** - Marginal or limited amounts of habitat occur, and/or the species is not known to occur within the vicinity of the Project site based on CNDDDB records and other available documentation.
- **Absent** - No suitable habitat (including soils and elevation requirements) and/or the species is not known to occur within the vicinity of the Project site based on CNDDDB records and other documentation.

4.0 RESULTS

4.1 Site Characteristics and Land Use

The Project is located on lands that have been partially developed as a parking lot and undeveloped rural lands situated at an elevational range of approximately 1,860 to 1,890 feet above mean sea level in the northern Sierra Nevada Foothill subregion of the Sierra Nevada region of the California floristic province (Baldwin et. al. 2012). The Camp Fire burned through this community, including the Project site, in November 2018. Representative photographs of the Study Area are provided in Attachment A.

The surrounding lands include the Paradise High School campus and Maxwell Drive on the west, a parking lot to the south, and rural residences to the north and east.

4.2 Vegetation Communities

The undeveloped portions of the Project are made up disturbed (burned) pine-oak woodland (Figure 2. *Vegetation and Land Cover*). As previously mentioned, much of this community, including the Project site, was completely burned during the Camp Fire in November 2018. Currently the pine-oak woodland is made up of sparsely distributed early successional weedy herbaceous plants, shrubs, and small sapling trees. Herbaceous weedy plants include wild oats (*Avena* species), prickly lettuce (*Lactuca serriola*), yellow star-thistle (*Centaurea solstitialis*), ripgut brome (*Bromus diandrus*), hairy hawkbit (*Leontodon saxatilis*), Italian thistle (*Carduus pycnocephalus*), and American pokeweed (*Phytolacca americana*). Shrubs found onsite included French broom (*Genista monspessulana*), and Scotch broom (*Cytisus scoparius*), with many Himalayan blackberry (*Rubus armeniacus*) and poison oak (*Toxicodendron diversilobum*) starts. A few black oak (*Quercus kelloggii*) trees remain standing, particularly along Maxwell Drive, and large-diameter tree stumps, presumed to be ponderosa pine (*Pinus ponderosa*), are scattered throughout the Project.

The remainder of the Project is comprised of paved parking lots. Representative photographs of the Project site area included in Attachment A.


4.3 Soils

According to the Web Soil Survey (NRCS 2020), there is one soil unit mapped within the Project: (829) Paradiso loam, 2 to 15 percent slopes (Figure 3. *Natural Resources Conservation Service Soil Types*). The Paradiso soil series consists of deep, well-drained soils that formed in weathered tephra over residuum derived from volcanic rocks. These soils are on the top of volcanic ridges in the Cascade Mountains.

ECORP: N:\2020\2020-122 Paradise High School Modernization\MAPS\Vegetation_and_LandCoverPHS_Vegetation.aprx (KIT)_swager 8/3/2020




Map Contents

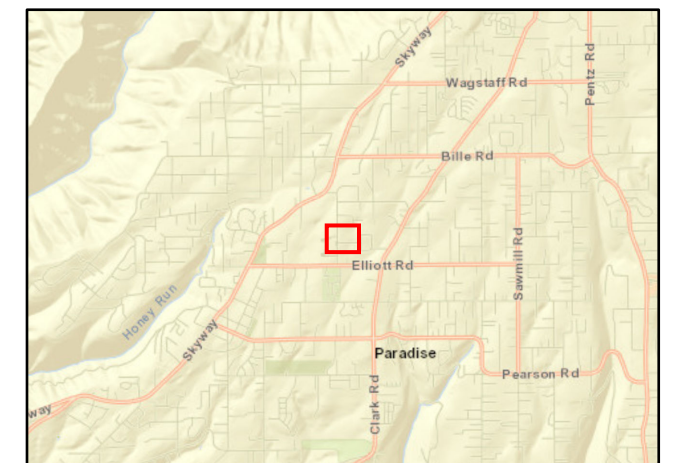
 Project Boundary - 2.3 ac.

Landcover Type - 2.3 ac.

 Developed - 1.2 ac.

 Disturbed Pine-Oak Woodland - 1.1 ac.


Sources: NAIP 2018




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Map Contents

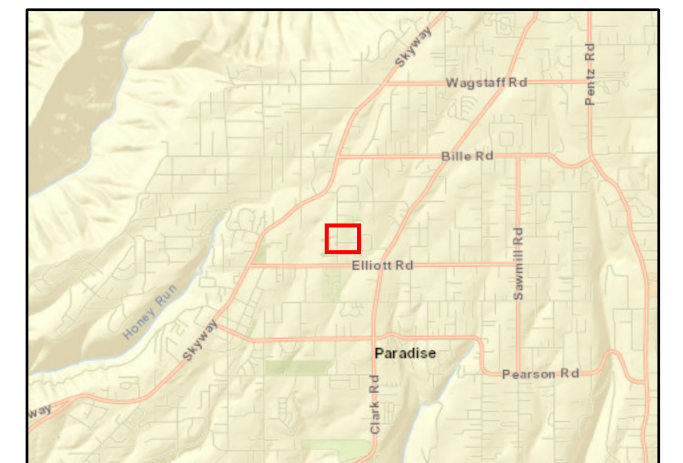
 Project Boundary - 2.3 ac.

Soil Series Number - Soil Series Name

 829 - Paradise loam, 2 to 15 percent slopes

*Natural Resources Conservation Service (NRCS)
Soil Survey Geographic (SSURGO) Database for
Butte County, CA*

Sources: NAIP 2018



4.4 Potential Waters of the U.S.

There are no aquatic features present onsite, and therefore there are no potential Waters of the U.S. present. The Project is situated on a south-southeast facing slope. In addition, there are no previously mapped California Aquatic Resource Inventory (CARI) features for the site (Figure 4. *CARI Features*)

4.5 Wildlife

Wildlife use onsite is expected to be minimal because the Project site is surrounded by Paradise High School and rural residences with no significant habitat features (e.g., wetlands, riparian woodlands) onsite or nearby.

4.6 Evaluation of Special-Status Species Identified in the Literature Search


There are no special-status species previously documented within the Project site boundaries, but several special-status species are known to occur within an approximate five-mile radius of the Project (CDFW 2020) (see Attachment B).

Special-status species that were identified on the CNPS, CNDDb, and USFWS database queries were evaluated for their potential to occur onsite (Table 1). Based upon the vegetation community and habitats present onsite, there are several potentially occurring special-status species for the Project site.

ECORP: N:\2020\2020-122 Paradise High School Modernization\MAPS\Jurisdictional_Delineation\CAR\PHS_CARI.aprx (KIT)-turnquist 7/17/2020



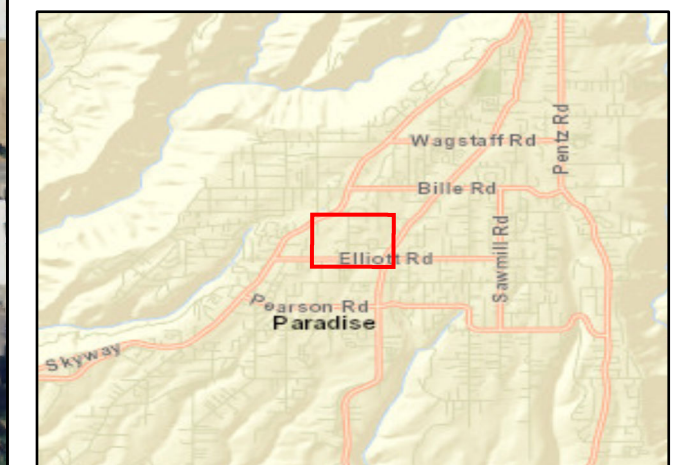
Map Contents

 Project Boundary - 2.31 ac.

CARI Features

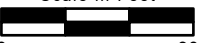
 Fluvial Natural

Sources: NAIP 2018



Map Date: 7/17/2020

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet

0 300



DRAFT

Figure 3. CARI Features

2020-122 Paradise High School

Table 1. Potentially Occurring Special-Status Species						
Common Name (<i>Scientific Name</i>)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Plants						
Henderson's bent grass (<i>Agrostis hendersonii</i>)	–	–	3.2	Vernal pools and mesic areas in valley and foothill grasslands (230'–1,001').	April–June	Absent-no suitable habitat is present.
Jepson's onion (<i>Allium jepsonii</i>)	–	–	1B.2	Serpentinite or volcanic soils in chaparral, cismontane woodland, and lower montane coniferous forests (984'–4,331').	April–August	Potential-suitable habitat is present.
Sanborn's onion (<i>Allium sanbornii</i> var. <i>sanbornii</i>)	–	–	4.2	Chaparral, cismontane woodland, and lower montane coniferous forests, usually with gravelly, serpentinite soils (853'–4,954').	May–September	Absent-no suitable habitat is present.
True's manzanita (<i>Arctostaphylos mewukka</i> ssp. <i>truei</i>)	–	–	4.2	Chaparral or lower montane coniferous forest, sometimes on roadsides (1,394'–4,560').	February–July	Potential-suitable habitat is present.
Carlotta Hall's lace fern (<i>Aspidotis carlotta-halliae</i>)	–	–	4.2	Usually serpentine soils in chaparral and cismontane woodland (328'–4,593').	January–December	Low Potential-marginally suitable habitat is present.
Depauperate Milk-Vetch (<i>Astragalus pauperculus</i>)	-	-	4.3	Occurs within vernally mesic and volcanic soils in chaparral, cismontane woodland, and valley and foothill grasslands (197'-3,986')	March-June	Potential- suitable habitat is present.
Scalloped moonwort (<i>Botrychium crenulatum</i>)	–	–	2B.2	Bogs and fens, meadows and seeps, and freshwater marshes and swamps within lower montane coniferous forest and upper montane coniferous forest (4,160'–10,761').	June–September	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Mingan moonwort (<i>Botrychium minganense</i>)	–	–	2B.2	Mesic soils in bogs and fens, lower montane coniferous forest, edges of meadows and seeps, and upper montane coniferous forest (4,774'–7,152').	July–September	Absent-no suitable habitat is present.
Western goblin (<i>Botrychium montanum</i>)	–	–	2B.1	Mesic soils in lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest (4,806'–7,152').	July–September	Absent-no suitable habitat is present.
Valley brodiaea (<i>Brodiaea rosea</i> ssp. <i>vallicola</i>)	–	–	4.2	Occurs in old alluvial terraces and silt, sandy, or gravelly soils in vernal pools within Valley and foothill grassland (33'–1,100').	April–May	Absent-no suitable habitat is present.
Sierra foothills brodiaea (<i>Brodiaea sierrae</i>)	–	–	4.3	Usually found on serpentinite or gabbroic soils within chaparral or cismontane woodland (164'–3,215').	May–August	Low Potential-marginally suitable habitat is present.
Thread-leaved beakseed (<i>Bulbostylis capillaris</i>)	–	–	4.2	Lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest (1,296'–6,808').	June–August	Potential-suitable habitat is present.
Butte County calycadenia (<i>Calycadenia oppositifolia</i>)	-	-	4.2	Occurs on volcanic, granitic, and serpentinite areas of chaparral, cismontane woodland, lower montane coniferous forest, meadows, seeps and valley and foothill grassland (295'-3,100').	April - July	Potential-suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Butte County morning-glory (<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>)	–	–	4.2	Rocky soils and sometimes roadside in chaparral, lower montane coniferous forest, and valley and foothill grassland (1,854'–5,000').	May–July	Absent-no suitable habitat is present.
Dissected-leaved toothwort (<i>Cardamine pachystigma</i> var. <i>dissectifolia</i>)	–	–	1B.2	Usually serpentinite and rock soils in chaparral and lower montane coniferous forest (837'–6,890').	February–May	Absent-no suitable habitat is present.
Chaparral sedge (<i>Carex xerophila</i>)	–	–	1B.2	Serpentinite or gabbroic soils within chaparral, cismontane woodland, and lower montane coniferous forest (1,444'–2,526').	March–June	Absent-no suitable habitat is present.
Pink creamsacs (<i>Castilleja rubicundula</i> var. <i>rubicundula</i>)	–	–	1B.2	Serpentinite substrates in chaparral openings, cismontane woodland, meadows and seeps, and valley and foothill grassland (66'–2,986').	April–June	Absent-no suitable habitat is present.
White-stemmed clarkia (<i>Clarkia gracilis</i> ssp. <i>albicaulis</i>)	–	–	1B.2	Sometimes serpentinite soils in chaparral and cismontane woodland (804'–1,085').	May–July	Absent-outside of known elevational range for the species.
Golden-anthered clarkia (<i>Clarkia mildrediae</i> ssp. <i>lutescens</i>)	–	–	4.2	Often on roadcuts and rocky soils in cismontane woodland and openings in lower montane coniferous forest (902'–5,741').	June–August	Potential-suitable habitat is present.
Mildred's clarkia (<i>Clarkia mildrediae</i> ssp. <i>mildrediae</i>)	–	–	1B.3	Sandy, usually granitic soils in cismontane woodland and lower montane coniferous forest (804'–5,610').	May–August	Absent-no suitable habitat is present.
Mosquin's clarkia (<i>Clarkia mosquinii</i>)	–	–	1B.1	Roadsides and rocky soil in cismontane woodland and lower montane coniferous forest (607'–4,888').	May–July	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Streambank spring beauty (<i>Claytonia parviflora</i> ssp. <i>grandiflora</i>)	–	–	4.2	Occurs in rocky cismontane woodland (820'–3,937').	February–May	Absent-no suitable habitat is present.
California lady's-slipper (<i>Cypripedium californicum</i>)	–	–	4.2	Usually within serpentinite seeps and streambanks of bogs and fens, and lower montane coniferous forest (98'–9,022').	April–August	Absent-no suitable habitat is present.
Clustered lady's-slipper (<i>Cypripedium fasciculatum</i>)	–	–	4.2	In serpentinite seeps, and streambanks of lower montane coniferous forest, and North Coast coniferous forest (328'–7,989').	March–August	Absent-no suitable habitat is present.
Clifton's eremogone (<i>Eremogone cliftonii</i>)	–	–	1B.3	Usually granitic openings in chaparral, lower montane coniferous forest, and upper montane coniferous forest (1,493'–6,824').	April–September	Absent-no suitable habitat is present.
Northern Sierra daisy (<i>Erigeron petrophilus</i> var. <i>sierrensis</i>)	–	–	4.3	Sometimes serpentinite in cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest (984'–6,801').	June–October	Low Potential-marginally suitable habitat is present.
Ahart's buckwheat (<i>Eriogonum umbellatum</i> var. <i>ahartii</i>)	–	–	1B.2	Serpentinite soils, slopes, and openings in chaparral and cismontane woodland (1,312'–6,562').	June–September	Potential-suitable habitat is present.
Slender cottongrass (<i>Eriophorum gracile</i>)	–	–	4.3	Acidic soils in bogs and fens, meadows and seeps, and upper montane coniferous forest (4,199'–9,514').	May–September	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Fern-leaved monkeyflower (<i>Erythranthe filicifolia</i>)	–	–	1B.2	Usually slow-draining, ephemeral seeps among exfoliating granitic slabs in chaparral, lower montane coniferous forest, and ephemeral meadows and seeps (1,362–5,610').	April–June	Absent-no suitable habitat is present.
Shield-bracted monkeyflower (<i>Erythranthe glaucescens</i>)	–	–	4.3	Serpentinite seeps, sometimes streambanks in chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland (197'–4,068').	February–August	Absent-no suitable habitat is present.
Small-flowered monkeyflower (<i>Erythranthe inconspicua</i>)	–	–	4.3	Mesic. Chaparral, cismontane woodland and lower montane coniferous forest (899'–2,493').	May–June	Absent-no suitable habitat is present.
Caribou coffeeberry (<i>Frangula purshiana</i> ssp. <i>ultramafica</i>)	–	–	1B.2	Serpentinite soils in chaparral, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest (2,707'–6,332').	May–July	Absent-no suitable habitat is present.
Butte County fritillary (<i>Fritillaria eastwoodiae</i>)	–	–	3.2	Chaparral, cismontane woodland, and openings in lower montane coniferous forest and occasionally is found on serpentinite soils (164'–4,921').	March–June	Potential-suitable habitat is present.
Adobe lily (<i>Fritillaria pluriflora</i>)	–	–	1B.2	Adobe soils in chaparral, cismontane woodland, and valley and foothill grassland (197'–2,313').	February–April	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/NPPA	Other			
Serpentine bluecup (<i>Githopsis pulchella</i> ssp. <i>serpentinicola</i>)	–	–	4.3	Serpentinite or lone cismontane woodland (1,050'–2,001').	May–June	Absent-no suitable habitat is present.
Woolly rose-mallow (<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>)	–	–	1B.2	Marshes and freshwater swamps. Often in riprap on sides of levees (0'–394').	June–September	Absent-no suitable habitat is present.
California satintail (<i>Imperata brevifolia</i>)	–	–	2B.1	Mesic areas in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali) and riparian scrub (0'–3,986').	September - May	Absent-no suitable habitat is present.
Red Bluff dwarf rush (<i>Juncus leiostermus</i> var. <i>leiostermus</i>)	–	–	1B.1	Vernally mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools (115'–4,101').	March–June	Absent-no suitable habitat is present.
Colusa layia (<i>Layia septentrionalis</i>)	–	–	1B.2	Sandy or serpentinite soils in chaparral, cismontane woodland, and valley and foothill grasslands (328'–3,593').	April–May	Absent-no suitable habitat is present.
Cantelow's lewisia (<i>Lewisia cantelovii</i>)	–	–	1B.2	In granitic or sometimes serpentinite soils within mesic areas of broad-leaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest (1,083'–4,495').	May–October	Absent-no suitable habitat is present.
Humboldt lily (<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>)	–	–	4.2	Occurs in openings within chaparral, cismontane woodland, and lower montane coniferous forest (295'–4,199').	May–August	Potential-suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Veiny monardella (<i>Monardella venosa</i>)	–	–	1B.1	Heavy clay soils in cismontane woodland and valley and foothill grasslands (197'–1,345').	May–July	Absent-no suitable habitat is present.
Tehama navarretia (<i>Navarretia heterandra</i>)	–	–	4.3	Mesic areas in valley and foothill grassland and vernal pools (98'–3,314').	April–June	Absent-no suitable habitat is present.
Adobe navarretia (<i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i>)	–	–	4.2	Clay and sometimes serpentinite soils in vernal mesic valley and foothill grasslands and sometimes in vernal pools (328'–3,281').	April–June	Absent-no suitable habitat is present.
Hairy Orcutt grass (<i>Orcuttia pilosa</i>)	FE	CE	1B.1	Vernal pools (151'–656').	May–September	Absent-no suitable habitat is present.
Lewis Rose's ragwort (<i>Packera eurycephala</i> var. <i>lewisrosei</i>)	–	–	1B.2	Serpentinite soils in chaparral, cismontane woodland, and lower montane coniferous forest (899'–6,201').	March–June	Absent-no suitable habitat is present.
Close-throated beardtongue (<i>Penstemon personatus</i>)	–	–	1B.2	Metavolcanic soils in chaparral, lower montane coniferous forest, and upper montane coniferous forest (3,494'–6,955').	June–September	Absent-outside of known elevational range of the species.
Bacigalupi's yampah (<i>Perideridia bacigalupii</i>)	–	–	4.2	Serpentinite soils of lower montane coniferous forest and chaparral (1,476'–3,396').	June–August	Absent-no suitable habitat is present.
Sierra blue grass (<i>Poa sierrae</i>)	–	–	1B.3	Openings in lower montane coniferous forest (1,198'–4,921').	April–June	Potential-suitable habitat is present.
Bidwell's knotweed (<i>Polygonum marinense</i>)	–	–	3.1	Coastal salt or brackish marshes and swamps (0'–33').	May–August	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
California beaked-rush (<i>Rhynchospora californica</i>)	–	–	1B.1	Bogs and fens, lower montane coniferous forest, meadows and seeps, freshwater marshes and swamps (148'–3,314').	May–July	Absent-no suitable habitat is present.
Brownish beaked-rush (<i>Rhynchospora capitellata</i>)	–	–	2B.2	Mesic areas in lower montane coniferous forest, upper montane coniferous forests, meadows, seeps, marshes, and swamps (148'–6,562').	July–August	Absent-no suitable habitat is present.
Hall's rupertia (<i>Rupertia hallii</i>)	–	–	1B.2	Often roadsides, sometimes openings in cismontane woodland and lower montane coniferous forest (1,788'–7,382').	June–August	Potential-suitable habitat is present.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	–	–	1B.2	Shallow marshes and freshwater swamps (0'–2,133').	May–October	Absent-no suitable habitat is present.
Feather River stonecrop (<i>Sedum albomarginatum</i>)	–	–	1B.2	Serpentinite soils in chaparral and lower montane coniferous forest (853'–6,398').	May–June	Absent-no suitable habitat is present.
Giant checkerbloom (<i>Sidalcea gigantea</i>)	–	–	4.3	Meadows and seeps within lower and upper montane coniferous forests (2,198'–6,398').	January–June	Absent-no suitable habitat is present.
Butte County checkerbloom (<i>Sidalcea robusta</i>)	–	–	1B.2	Chaparral and cismontane woodland (295'–5,249').	April–June	Potential-suitable habitat is present.
Obtuse starwort (<i>Stellaria obtusa</i>)	–	–	4.3	Mesic, streambanks in lower montane coniferous forest, riparian woodland, and upper montane coniferous forest (492'–7,513').	May–September	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Sickle-fruit jewelflower (<i>Streptanthus drepanoides</i>)	–	–	4.3	Serpentine soils in chaparral, cismontane woodland, lower montane coniferous forest (902'–5,446').	April–June	Absent-no suitable habitat is present.
Long-fruit jewelflower (<i>Streptanthus longissimus</i>)	–	–	4.3	Openings in cismontane woodland and lower montane coniferous forest (2,346'–4,921').	April–September	Potential-suitable habitat is present.
Greene's tuctoria (<i>Tuctoria greenei</i>)	FE	CR	1B.1	Vernal pools (98'–3,510').	May–July	Absent-no suitable habitat is present.
Invertebrates						
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE	-	-	Vernal pools/wetlands.	November–April	Absent-no suitable habitat is present.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	-	-	Elderberry shrubs.	Any season	Absent-no suitable habitat is present.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	FE	-	-	Vernal pools/wetlands.	November–April	Absent-no suitable habitat is present.
Fish						
Delta smelt (<i>Hypomesus transpacificus</i>)	FT	CE	-	Sacramento-San Joaquin delta.	N/A	Absent-no suitable habitat is present.
Chinook salmon (Central Valley spring-run Evolutionarily Significant Unit) (<i>Oncorhynchus tshawytscha</i>)	FT	CT	-	Undammed rivers, streams, creeks.	N/A	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/NPPA	Other			
Hardhead (<i>Mylopharodon conocephalus</i>)	-	-	SSC	Relatively undisturbed streams at low to mid elevations in the Sacramento-San Joaquin and Russian River drainages. In the San Joaquin River, scattered populations found in tributary streams, but only rarely in the valley reaches of the San Joaquin River.	N/A	Absent-no suitable habitat is present.
Steelhead (CA Central Valley Distinct Population Segments) (<i>Oncorhynchus mykiss</i>)	FT	-	-	Undammed rivers, streams, creeks.	N/A	Absent-no suitable habitat is present.
Amphibians						
California red-legged frog (<i>Rana draytonii</i>)	FT	-	SSC	Lowlands or foothills at waters with dense shrubby or emergent riparian vegetation. Adults must have aestivation habitat to endure summer dry down.	May 1- November 1	Absent-no suitable habitat is present.
Cascade frog (<i>Rana cascadae</i>)	-	CE	SSC			Absent-no suitable habitat is present.
Foothill yellow-legged frog (<i>Rana boylei</i>)	-	CE	SSC	Foothill yellow-legged frogs can be active all year in warmer locations but may become inactive or hibernate in colder climates. At lower elevations, foothill yellow-legged frogs likely spend most of the year in or near streams. Adult frogs, primarily males, will gather along main-stem rivers during spring to breed.	May - October	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Western spadefoot (<i>Spea hammondi</i>)	-	-	SSC	California endemic species of vernal pools, swales, wetlands and adjacent grasslands throughout the Central Valley.	March-May	Absent-no suitable habitat is present.
Reptiles						
Blainville's ("Coast") horned lizard (<i>Phrynosoma blainvillii</i>)	-	-	SSC	Found in a wide variety of habitats, often in lower elevation areas with sandy washes and scattered low bushes. 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.	Apr-Oct	Absent-no suitable habitat is present.
Northwestern pond turtle (<i>Actinemys marmorata</i>)	-	-	SSC	Requires basking sites and upland habitats up to 0.5 kilometers from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches.	April-September	Absent-no suitable habitat is present.
Birds						
Rufous hummingbird (<i>Selasphorus rufus</i>)	-	-	BCC	Breeds in British Columbia and Alaska (does not breed in California). Winters in coastal Southern California south into Mexico. Common migrant during March-April in Sierra Nevada foothills and June-August in Lower Conifer to Alpine zone of Sierra Nevada. Nesting habitat includes secondary succession communities and openings, mature forests, parks and residential area.	April-July	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	-	CT	BCC, 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)	March-September (breeding)	Absent-no suitable habitat is present.
Osprey (<i>Pandion haliaetus</i>)	-	-	CDFW WL	Nesting habitat requires close proximity to accessible fish, open nest site free of mammalian predators, and extended ice-free season. The nest in large trees, snags, cliffs, transmission/communication towers, artificial nest platforms, channel markers/buoys.	April-September	Absent-no suitable habitat is present.
Golden eagle (<i>Aquila chrysaetos</i>)	-	-	BCC, CFP	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.	Nest (February-August); winter CV (October-February)	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Northern goshawk (<i>Accipiter gentilis</i>)	-	-	SSC	Nesting occurs in mature to old-growth forests composed primarily of large trees with high canopy closure. In California, nests are built primarily in conifer trees in the Sierra Nevada, Cascade and northwestern coastal Ranges.	March-August	Absent-no suitable habitat is present.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	De-listed	CE	CFP, BCC	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	February – September (nesting); October-March (wintering)	Absent-no suitable habitat is present.
Nuttall's woodpecker (<i>Dryobates nuttallii</i>)	-	-	BCC	Resident from northern California south to Baja California. Nests in tree cavities in oak woodlands and riparian woodlands.	April-July	Potential-suitable nesting habitat is present.
White-headed woodpecker (<i>Picoides albolarvatus</i>)	-	-	BCC	Requires montane coniferous forests dominated by pines. Found year-round in Ponderosa pine woodland, black oak woodland, mixed coniferous forest, Jeffrey pine woodland, and red fir forests. Uses snags for nesting.	April-August (breeding)	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/NPPA	Other			
American peregrine falcon (<i>Falco peregrinus anatum</i>)	De-listed	De-listed	BCC, CFP	In California, breeds in coastal region, northern California, and Sierra Nevada. Nesting habitat includes cliff ledges and human-made ledges on towers and buildings. Wintering habitat includes areas where there are large concentrations of shorebirds, waterfowl, pigeons or doves.	CA Residents nest in February-June	Absent-no suitable habitat is present.
Oak titmouse (<i>Baeolophus inornatus</i>)			BCC	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)	March-July	Potential-suitable nesting habitat is present.
Wrentit (<i>Chamaea fasciata</i>)	-	-	BCC	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.	March-August	Absent-no suitable habitat is present.
California thrasher (<i>Toxostoma redivivum</i>)	-	-	BCC	Resident and endemic to coastal and Sierra Nevada-Cascade foothill areas of California. Nests are usually well hidden in dense shrubs, including scrub oak, California lilac, and chamise.	February-July	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/NPPA	Other			
Lawrence's goldfinch (<i>Spinus lawrencei</i>)	-	-	BCC	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.	March-September	Absent-no suitable habitat is present.
Song sparrow "Modesto" (<i>Melospiza melodia heermanni</i>)	-	-	BCC, SSC	Resident in central and southwest California, including Central Valley; nests in marsh, scrub habitat.	April-June	Absent-no suitable habitat is present.
San Clemente spotted towhee (<i>Pipilo maculatus clementae</i>)	-	-	BCC, SSC	Resident on Santa Catalina and Santa Rosa Islands; extirpated on San Clemente Island, California. Breeds in dense, broadleaf shrubby brush, thickets, and tangles in chaparral, oak woodland, island woodland, and Bishop pine forest.	Year round resident; breeding season is April-July	Absent-no suitable habitat is present.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/ NPPA	Other			
Tricolored blackbird (<i>Agelaius tricolor</i>)	-	CT	BCC, 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.	March-August	Absent-no suitable habitat is present.
Mammals						
Pallid bat (<i>Antrozous pallidus</i>)	-	-	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] 2020).	April-September	Absent-there is no suitable habitat present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	FESA	CESA/NPPA	Other			
Sierra Nevada mountain beaver (<i>Aplodontia rufa californica</i>)	-	-	SSC	Wet boggy areas near springs in canyons and on mountainsides, shrubby/mossy ravines, and seasonally wet thickets shaded by oaks and firs.	n/a	Absent-there is no suitable habitat present.
Western red bat (<i>Lasiurus blossevillii</i>)	-	-	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 2020).	April-September	Absent-there is no suitable habitat present.

Status Codes:

FESA	Federal Endangered Species Act
CESA	California Endangered Species Act
FE	FESA listed, Endangered.
FT	FESA listed, Threatened.
BCC	USFWS Bird of Conservation Concern (USFWS 2002).
CR	CESA- or NPPA-listed, Rare.
CE	CESA or NPPA listed, Endangered.
CFP	California Fish and Game Code Fully Protected Species (§ 3511-birds, § 4700-mammals, §5 050-reptiles/amphibians).
CDFW WL	CDFW Watch List
SSC	CDFW Species of Special Concern (CDFW, updated July 2020).
1B	CRPR/Rare or Endangered in California and elsewhere.
2B	Plants rare, threatened, or endangered in California but more common elsewhere.
3	CRPR/Plants About Which More Information is Needed – A Review List.
4	CRPR/Plants of Limited Distribution – A Watch List.
0.1	Threat Rank/Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20-80 percent occurrences threatened / moderate degree and immediacy of threat)
0.3	Threat Rank/Not very threatened in California (<20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)

4.6.1 Special-Status Plants

The disturbed pine-oak woodland community onsite supports potentially suitable habitat for several special-status plants, including Jepson's onion (*Allium jepsonii*), True's manzanita (*Arctostaphylos mewukka* ssp. *truei*), Carlotta Hall's lace fern (*Aspidotis carlotta-halliae*), depauperate milk-vetch (*Astragalus*

pauperculus), Sierra foothills brodiaea (*Brodiaea sierrae*), thread-leaved beakseed (*Bulbostylis capillaris*), Butte County calycadenia (*Calycadenia oppositifolia*), golden-anthered clarkia (*Clarkia mildrediae* ssp. *lutescens*), Northern Sierra daisy (*Erigeron petrophilus* var. *sierrensis*), Ahart's buckwheat (*Eriogonum umbellatum* var. *ahartii*), Butte County fritillary (*Fritillaria eastwoodiae*), Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*), Sierra blue grass (*Poa sierrae*), Hall's rupertia (*Rupertia hallii*), Butte County checkerbloom (*Sidalcea robusta*), and long-fruit jewelflower (*Streptanthus longisiliquus*). Table 1 includes listing status, a brief habitat description, survey (flowering period) period, and the potential to occur for each species.

4.6.2 Migratory Bird Treaty Act Protected Birds

The few scattered black oak trees remaining on the site support potentially suitable nesting habitat for two special-status birds, Nuttall's woodpecker (*Dryobates nuttallii*) and oak titmouse (*Baeolophus inornatus*). Table 1 includes the listing status, a brief habitat description, survey period, and the potential to occur for each special-status bird species. In addition, scattered saplings trees and low shrubs onsite could provide suitable nesting habitat for birds protected under the MBTA. These could include common species such as northern mockingbird (*Mimus polyglottos*) and house finch (*Haemorhous mexicanus*), among others.

4.7 Wildlife Movement/Corridors

There are no significant habitat features (e.g., wetlands, woodlands) within or adjacent to the Project and Project development is not expected to impact wildlife movement.

4.8 Critical Habitat

There is no designated Critical Habitat within the Project.

5.0 RECOMMENDATIONS

This section summarizes possible measures to avoid, minimize, or compensate for potential impacts to biological resources from the proposed Project.

5.1 Waters of the U.S.

There are no aquatic features or potential Waters of the U.S. present, so no avoidance or mitigation measures are recommended.

5.2 Special-Status Plants

The Survey Area supports potentially suitable habitat for special-status plants including Jepson's onion, True's manzanita, Carlotta Hall's lace fern, depauperate milk-vetch, Sierra foothills brodiaea, thread-leaved beakseed, Butte County calycadenia, golden-anthered clarkia, Northern Sierra daisy, Ahart's buckwheat, Butte County fritillary, Humboldt lily, Sierra blue grass, Hall's rupertia, Butte County checkerbloom, and long-fruit Jewelflower. The following measures are recommended to minimize potential impacts to special-status plants:

- Perform focused plant surveys according to USFWS, CDFW, and CNPS protocols. Surveys should be timed according to the blooming period for target species and known reference populations, if available, and/or local herbaria should be visited prior to surveys to confirm the appropriate phenological state of the target species.
- If special-status plant species are found during surveys within the Project and avoidance of the species is not possible, seed collection, transplantation, and/or other mitigation measures may be developed in consultation with appropriate resource agencies to reduce impacts to special-status plant populations.
- If no special-status plants are found within the Project Area, no further measures pertaining to special-status plants are necessary.

5.3 Special-Status Animal Species

5.3.1 Special-Status Birds and Migratory Bird Treaty Act-Protected Birds

The Survey Area supports suitable nesting and foraging habitat for two special-status birds and birds protected under the MBTA. To minimize impacts to protected bird and active nests during construction, the following mitigation measures are recommended:

- Conduct a pre-construction nesting raptor and bird survey of all suitable habitat on the Project site within 14 days of the commencement ground disturbance (e.g., tree/vegetation removal, mass grading) during the nesting season (February 1 – August 31). Where accessible, surveys should be conducted within 300 feet of the Project site for nesting raptors, and 100 feet of the Project site for other nesting birds.
- If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a qualified biologist, in consultation with CDFW. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. Once the young are independent of the nest, no further measures are necessary.

6.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A. Representative Photographs

Attachment B. Special-Status Species Searches (9-Quad CNPS Search, CNNDDB Search, and
Project Area IPaC Search)

ATTACHMENT A

Representative Photographs



Photo 1. Disturbed Pine-Oak Woodland, Facing east, July 16, 2020.



Photo 2 . Disturbed Pine-Oak Woodland, Facing north, July 16, 2020.



Photo 3. Parking Lot, Facing southeast, July 16, 2020.



Photo 4. Parking Lot and Maxwell Drive, Facing south, July 16, 2020.

Representative Photographs

ATTACHMENT B

Special-Status Species Searches
(9-Quad CNPS Search, CNNDB Search, and Project Area IPaC Search)

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

Plant List

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

Search Criteria

Found in Quads 3912186, 3912185, 3912184, 3912176, 3912175, 3912174, 3912166 3912165 and 3912164;

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

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Agrostis hendersonii	Henderson's bent grass	Poaceae	annual herb	Apr-Jun	3.2	S2	G2Q
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2	S2	G2
Allium sanbornii var. sanbornii	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	4.2	S3S4	G4T3T4
Anomobryum julaceum	slender silver moss	Bryaceae	moss		4.2	S2	G5?
Arctostaphylos mewukka ssp. truei	True's manzanita	Ericaceae	perennial evergreen shrub	Feb-Jul	4.2	S3	G4?T3
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	Pteridaceae	perennial rhizomatous herb	Jan-Dec	4.2	S3	G3
Astragalus pauperculus	depauperate milk-vetch	Fabaceae	annual herb	Mar-Jun	4.3	S4	G4
Botrychium crenulatum	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	2B.2	S3	G4
Botrychium minganense	Mingan moonwort	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	2B.2	S3	G4G5
Botrychium montanum	western goblin	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	2B.1	S2	G3
Brodiaea rosea ssp. vallicola	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	4.2	S3	G5T3
Brodiaea sierrae	Sierra foothills brodiaea	Themidaceae	perennial bulbiferous herb	May-Aug	4.3	S3	G3
Bulbostylis capillaris	thread-leaved beakseed	Cyperaceae	annual herb	Jun-Aug	4.2	S3	G5
Calycadenia oppositifolia	Butte County calycadenia	Asteraceae	annual herb	Apr-Jul	4.2	S3	G3
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	Convolvulaceae	perennial rhizomatous herb	May-Jul	4.2	S3	G5T3
	dissected-leaved	Brassicaceae	perennial rhizomatous	Feb-May	1B.2	S2	G3G5T2Q

<u>Cardamine pachystigma var. dissectifolia</u>	toothwort		herb				
<u>Carex xerophila</u>	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	1B.2	S2	G2
<u>Castilleja rubicundula var. rubicundula</u>	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	1B.2	S2	G5T2
<u>Clarkia gracilis ssp. albicaulis</u>	white-stemmed clarkia	Onagraceae	annual herb	May-Jul	1B.2	S3	G5T3
<u>Clarkia mildrediae ssp. lutescens</u>	golden-anthered clarkia	Onagraceae	annual herb	Jun-Aug	4.2	S3	G3T3
<u>Clarkia mildrediae ssp. mildrediae</u>	Mildred's clarkia	Onagraceae	annual herb	May-Aug	1B.3	S2S3	G3T2T3
<u>Clarkia mosquinii</u>	Mosquin's clarkia	Onagraceae	annual herb	May-Jul(Sep)	1B.1	S2	G2
<u>Claytonia palustris</u>	marsh claytonia	Montiaceae	perennial herb	May-Oct	4.3	S4	G4
<u>Claytonia parviflora ssp. grandiflora</u>	streambank spring beauty	Montiaceae	annual herb	Feb-May	4.2	S3	G5T3
<u>Cypripedium californicum</u>	California lady's-slipper	Orchidaceae	perennial rhizomatous herb	Apr-Aug(Sep)	4.2	S4	G4
<u>Cypripedium fasciculatum</u>	clustered lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	4.2	S4	G4
<u>Eremogone cliftonii</u>	Clifton's eremogone	Caryophyllaceae	perennial herb	Apr-Sep	1B.3	S2S3	G2G3
<u>Erigeron petrophilus var. sierrensis</u>	northern Sierra daisy	Asteraceae	perennial rhizomatous herb	Jun-Oct	4.3	S4	G4T4
<u>Eriogonum umbellatum var. ahartii</u>	Ahart's buckwheat	Polygonaceae	perennial herb	Jun-Sep	1B.2	S3	G5T3
<u>Eriophorum gracile</u>	slender cottongrass	Cyperaceae	perennial rhizomatous herb (emergent)	May-Sep	4.3	S4	G5
<u>Erythranthe filicifolia</u>	fern-leaved monkeyflower	Phrymaceae	annual herb	Apr-Jun	1B.2	S2	G2
<u>Erythranthe glaucescens</u>	shield-bracted monkeyflower	Phrymaceae	annual herb	Feb-Aug(Sep)	4.3	S3S4	G3G4
<u>Erythranthe inconspicua</u>	small-flowered monkeyflower	Phrymaceae	annual herb	May-Jun	4.3	S4	G4
<u>Erythranthe laciniata</u>	cut-leaved monkeyflower	Phrymaceae	annual herb	Apr-Jul	4.3	S4	G4
<u>Euphorbia hooveri</u>	Hoover's spurge	Euphorbiaceae	annual herb	Jul-Sep(Oct)	1B.2	S1	G1
<u>Frangula purshiana ssp. ultramafica</u>	Caribou coffeeberry	Rhamnaceae	perennial deciduous shrub	May-Jul	1B.2	S2S3	G4T2T3
<u>Fritillaria eastwoodiae</u>	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	3.2	S3	G3Q
<u>Fritillaria pluriflora</u>	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2S3	G2G3
<u>Githopsis pulchella ssp. serpentinicola</u>	serpentine bluecup	Campanulaceae	annual herb	May-Jun	4.3	S3	G4T3
<u>Hibiscus lasiocarpus var. occidentalis</u>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
<u>Imperata brevifolia</u>	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
	Red Bluff dwarf	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2

<u>Juncus leiospermus var. leiospermus</u>	rush						
<u>Layia septentrionalis</u>	Colusa layia	Asteraceae	annual herb	Apr-May	1B.2	S2	G2
<u>Lewisia cantelovii</u>	Cantelow's lewisia	Montiaceae	perennial herb	May-Oct	1B.2	S3	G3
<u>Lilium humboldtii ssp. humboldtii</u>	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	4.2	S3	G4T3
<u>Monardella venosa</u>	veiny monardella	Lamiaceae	annual herb	May,Jul	1B.1	S1	G1
<u>Navarretia heterandra</u>	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	4.3	S4	G4
<u>Navarretia nigelliformis ssp. nigelliformis</u>	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	4.2	S3	G4T3
<u>Orcuttia pilosa</u>	hairy Orcutt grass	Poaceae	annual herb	May-Sep	1B.1	S1	G1
<u>Packera eurycephala var. lewisrosei</u>	Lewis Rose's ragwort	Asteraceae	perennial herb	Mar-Jul(Aug-Sep)	1B.2	S2	G4T2
<u>Penstemon personatus</u>	closed-throated beardtongue	Plantaginaceae	perennial herb	Jun-Sep(Oct)	1B.2	S2	G2
<u>Perideridia bacigalupii</u>	Bacigalupi's yampah	Apiaceae	perennial herb	Jun-Aug	4.2	S3	G3
<u>Poa sierrae</u>	Sierra blue grass	Poaceae	perennial rhizomatous herb	Apr-Jul	1B.3	S3	G3
<u>Polygonum bidwelliae</u>	Bidwell's knotweed	Polygonaceae	annual herb	Apr-Jul	4.3	S4	G4
<u>Rhynchospora californica</u>	California beaked-rush	Cyperaceae	perennial rhizomatous herb	May-Jul	1B.1	S1	G1
<u>Rhynchospora capitellata</u>	brownish beaked-rush	Cyperaceae	perennial herb	Jul-Aug	2B.2	S1	G5
<u>Rupertia hallii</u>	Hall's rupertia	Fabaceae	perennial herb	Jun-Aug(Sep)	1B.2	S2S3	G2G3
<u>Sagittaria sanfordii</u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
<u>Sedum albomarginatum</u>	Feather River stonecrop	Crassulaceae	perennial herb	May-Jun	1B.2	S2	G2
<u>Sidalcea gigantea</u>	giant checkerbloom	Malvaceae	perennial rhizomatous herb	(Jan-Jun)Jul-Oct	4.3	S3	G3
<u>Sidalcea robusta</u>	Butte County checkerbloom	Malvaceae	perennial rhizomatous herb	Apr,Jun	1B.2	S2	G2
<u>Stellaria obtusa</u>	obtuse starwort	Caryophyllaceae	perennial rhizomatous herb	May-Sep(Oct)	4.3	S4	G5
<u>Streptanthus drepanoides</u>	sickle-fruit jewelflower	Brassicaceae	annual herb	Apr-Jun	4.3	S4	G4
<u>Streptanthus longisiliquus</u>	long-fruit jewelflower	Brassicaceae	perennial herb	Apr-Sep	4.3	S3	G3
<u>Tuctoria greenei</u>	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	1B.1	S1	G1

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Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Paradise East (3912175) OR Cohasset (3912186) OR Stirling City (3912185) OR Kimshew Point (3912184) OR Paradise West (3912176) OR Pulga (3912174) OR Hamlin Canyon (3912166) OR Cherokee (3912165) OR Berry Creek (3912164))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAABF02020	<i>Spea hammondi</i> western spadefoot	None	None	G3	S3	SSC
AAABH01022	<i>Rana draytonii</i> California red-legged frog	Threatened	None	G2G3	S2S3	SSC
AAABH01050	<i>Rana boylei</i> foothill yellow-legged frog	None	Endangered	G3	S3	SSC
AAABH01060	<i>Rana cascadae</i> Cascades frog	None	Candidate Endangered	G3G4	S3	SSC
ABNKC01010	<i>Pandion haliaetus</i> osprey	None	None	G5	S4	WL
ABNKC10010	<i>Haliaeetus leucocephalus</i> bald eagle	Delisted	Endangered	G5	S3	FP
ABNKC12060	<i>Accipiter gentilis</i> northern goshawk	None	None	G5	S3	SSC
ABNKD06071	<i>Falco peregrinus anatum</i> American peregrine falcon	Delisted	Delisted	G4T4	S3S4	FP
ABNME03041	<i>Laterallus jamaicensis coturniculus</i> California black rail	None	Threatened	G3G4T1	S1	FP
ABPBXB0020	<i>Agelaius tricolor</i> tricolored blackbird	None	Threatened	G2G3	S1S2	SSC
AFCHA0205A	<i>Oncorhynchus tshawytscha</i> pop. 6 chinook salmon - Central Valley spring-run ESU	Threatened	Threatened	G5	S1	
AFCHA0209K	<i>Oncorhynchus mykiss irideus</i> pop. 11 steelhead - Central Valley DPS	Threatened	None	G5T2Q	S2	
AFCJB25010	<i>Mylopharodon conocephalus</i> hardhead	None	None	G3	S3	SSC
AMACC01020	<i>Myotis yumanensis</i> Yuma myotis	None	None	G5	S4	
AMACC01090	<i>Myotis thysanodes</i> fringed myotis	None	None	G4	S3	
AMACC02010	<i>Lasionycteris noctivagans</i> silver-haired bat	None	None	G5	S3S4	
AMACC05060	<i>Lasiurus blossevillei</i> western red bat	None	None	G5	S3	SSC
AMACC10010	<i>Antrozous pallidus</i> pallid bat	None	None	G5	S3	SSC
AMAF01013	<i>Apodonta rufa californica</i> Sierra Nevada mountain beaver	None	None	G5T3T4	S2S3	SSC



Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AMAFJ01010	<i>Erethizon dorsatum</i> North American porcupine	None	None	G5	S3	
ARAAD02030	<i>Emys marmorata</i> western pond turtle	None	None	G3G4	S3	SSC
ARACF12100	<i>Phrynosoma blainvillii</i> coast horned lizard	None	None	G3G4	S3S4	SSC
CTT44110CA	<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	None	None	G3	S3.1	
CTT44131CA	<i>Northern Basalt Flow Vernal Pool</i> Northern Basalt Flow Vernal Pool	None	None	G3	S2.2	
CTT61410CA	<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	None	None	G2	S2.1	
ICBRA10010	<i>Lepidurus packardii</i> vernal pool tadpole shrimp	Endangered	None	G4	S3S4	
IICOL48011	<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	Threatened	None	G3T2	S2	
IICOL58010	<i>Atractelmis wawona</i> Wawona riffle beetle	None	None	G3	S1S2	
NBMUS80010	<i>Anomobryum julaceum</i> slender silver moss	None	None	G5?	S2	4.2
PDAST5N0F0	<i>Layia septentrionalis</i> Colusa layia	None	None	G2	S2	1B.2
PDAST8H182	<i>Packera eurycephala</i> var. <i>lewisrosei</i> Lewis Rose's ragwort	None	None	G4T2	S2	1B.2
PDBRA0K1B1	<i>Cardamine pachystigma</i> var. <i>dissectifolia</i> dissected-leaved toothwort	None	None	G3G5T2Q	S2	1B.2
PDCAR0X0U0	<i>Stellaria obtusa</i> obtuse starwort	None	None	G5	S4	4.3
PDCAR17010	<i>Eremogone cliftonii</i> Clifton's eremogone	None	None	G3	S3	1B.3
PDCON04012	<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i> Butte County morning-glory	None	None	G5T3	S3	4.2
PDCRA0A030	<i>Sedum albomarginatum</i> Feather River stonecrop	None	None	G2	S2	1B.2
PDEUP0D150	<i>Euphorbia hooveri</i> Hoover's spurge	Threatened	None	G1	S1	1B.2
PDFAB62010	<i>Rupertia hallii</i> Hall's rupertia	None	None	G2G3	S2S3	1B.2
PDLAM18082	<i>Monardella venosa</i> veiny monardella	None	None	G1	S1	1B.1
PDMAL0H0R3	<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> woolly rose-mallow	None	None	G5T3	S3	1B.2



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDMAL110P0	<i>Sidalcea robusta</i> Butte County checkerbloom	None	None	G2	S2	1B.2
PDONA050J1	<i>Clarkia gracilis ssp. albicaulis</i> white-stemmed clarkia	None	None	G5T3	S3	1B.2
PDONA050Q2	<i>Clarkia mildrediae ssp. mildrediae</i> Mildred's clarkia	None	None	G3T2T3	S2S3	1B.3
PDONA050S0	<i>Clarkia mosquinii</i> Mosquin's clarkia	None	None	G2	S2	1B.1
PDPGN086UY	<i>Eriogonum umbellatum var. ahartii</i> Ahart's buckwheat	None	None	G5T3	S3	1B.2
PDPHR01150	<i>Erythranthe filicifolia</i> fern-leaved monkeyflower	None	None	G2	S2	1B.2
PDPOR04020	<i>Lewisia cantelovii</i> Cantelow's lewisia	None	None	G3	S3	1B.2
PDRHA0H061	<i>Frangula purshiana ssp. ultramafica</i> Caribou coffeeberry	None	None	G4T2T3	S2S3	1B.2
PDSCR0D482	<i>Castilleja rubicundula var. rubicundula</i> pink creamsacs	None	None	G5T2	S2	1B.2
PDSCR1L4Y0	<i>Penstemon personatus</i> closed-throated beardtongue	None	None	G2	S2	1B.2
PMALI040Q0	<i>Sagittaria sanfordii</i> Sanford's arrowhead	None	None	G3	S3	1B.2
PMCYP03M60	<i>Carex xerophila</i> chaparral sedge	None	None	G2	S2	1B.2
PMCYP0N060	<i>Rhynchospora californica</i> California beaked-rush	None	None	G1	S1	1B.1
PMCYP0N080	<i>Rhynchospora capitellata</i> brownish beaked-rush	None	None	G5	S1	2B.2
PMJUN011L2	<i>Juncus leiospermus var. leiospermus</i> Red Bluff dwarf rush	None	None	G2T2	S2	1B.1
PMLIL022V0	<i>Allium jepsonii</i> Jepson's onion	None	None	G2	S2	1B.2
PMLIL0V060	<i>Fritillaria eastwoodiae</i> Butte County fritillary	None	None	G3Q	S3	3.2
PMPOA040K0	<i>Agrostis hendersonii</i> Henderson's bent grass	None	None	G2Q	S2	3.2
PMPOA3D020	<i>Imperata brevifolia</i> California satintail	None	None	G4	S3	2B.1
PMPOA4Z310	<i>Poa sierrae</i> Sierra blue grass	None	None	G3	S3	1B.3
PMPOA6N010	<i>Tuctoria greenei</i> Greene's tuctoria	Endangered	Rare	G1	S1	1B.1



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PPOPH010K0	<i>Botrychium montanum</i> western goblin	None	None	G3	S2	2B.1
PPOPH010L0	<i>Botrychium crenulatum</i> scaloped moonwort	None	None	G4	S3	2B.2
PPOPH010R0	<i>Botrychium minganense</i> Mingan moonwort	None	None	G4G5	S3	2B.2

Record Count: 64

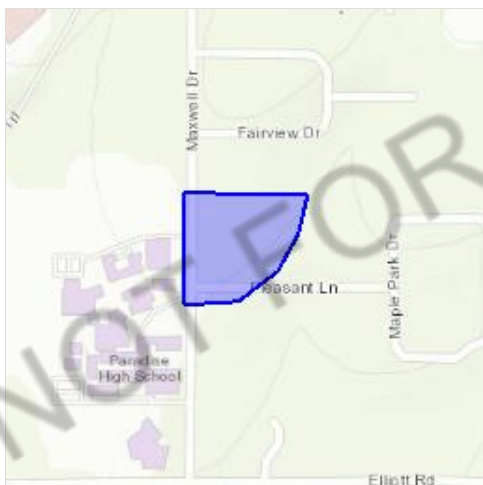
IPaC resource list

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 species¹ 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 Fisheries²).

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](#).

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.
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:

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/321>

Crustaceans

NAME

STATUS

Conservancy Fairy Shrimp *Branchinecta conservatio*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/8246>

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

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

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

- Measures for avoiding and minimizing impacts to birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds
<http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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

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

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

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/1626>

California Thrasher *Toxostoma redivivum*

Breeds Jan 1 to Jul 31

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

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 *Carduelis 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>

Nuttall's Woodpecker *Picoides 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>

Rufous Hummingbird *Selasphorus rufus*

Breeds elsewhere

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

<https://ecos.fws.gov/ecp/species/8002>

Song Sparrow *Melospiza melodia*

Breeds Feb 20 to Sep 5

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

Spotted Towhee *Pipilo maculatus clementae*

Breeds Apr 15 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/4243>

White Headed Woodpecker *Picoides albolarvatus*

Breeds May 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/9411>

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.

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

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

Survey Effort (|)

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

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

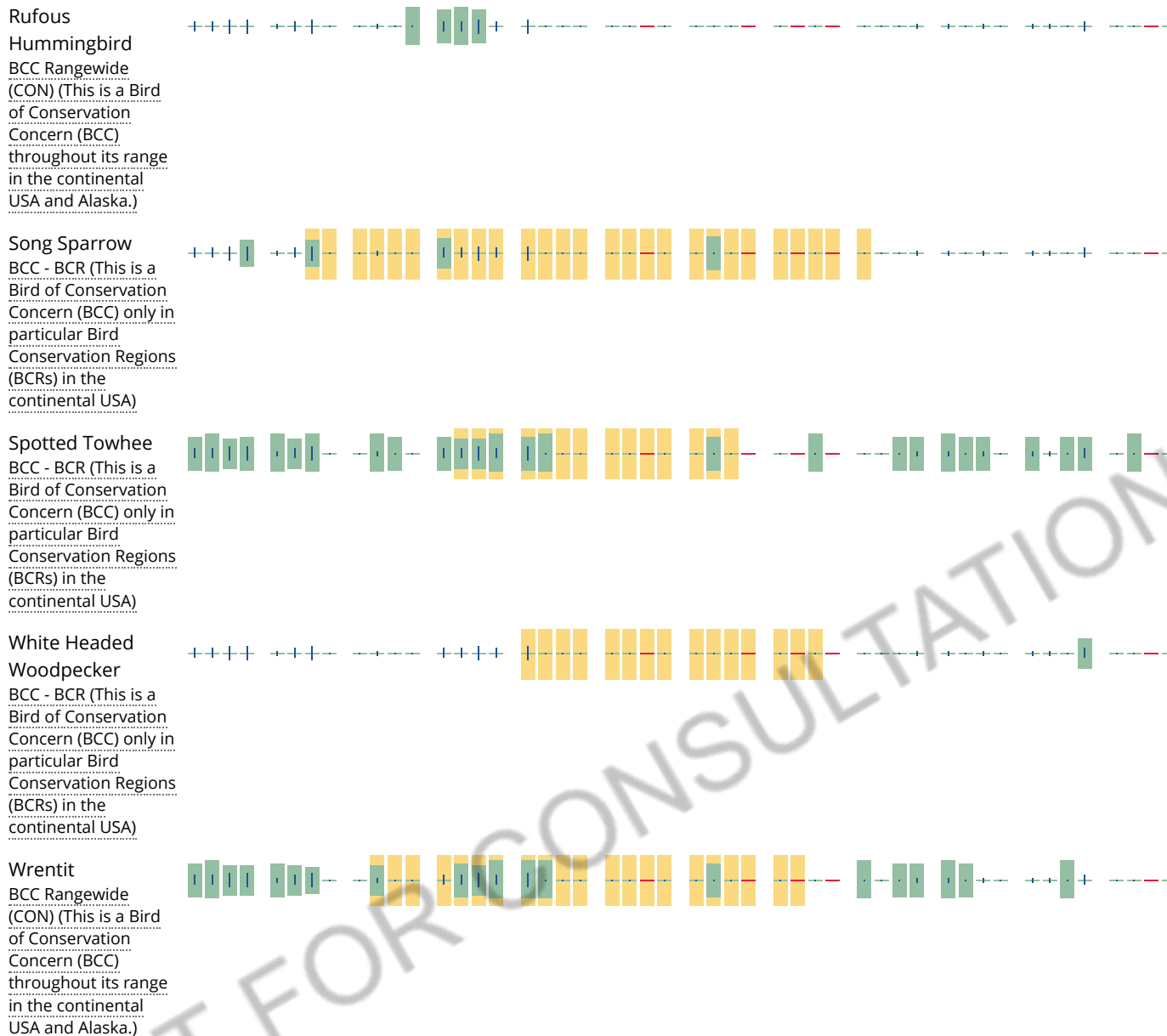
No Data (—)

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

Survey Timeframe

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





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](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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

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

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project

intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

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

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

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

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid 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.