

From: [Robert Edgerton](#)
To: [Sara Spence](#)
Subject: RE: Biological Resources Assessment
Date: Monday, October 17, 2022 12:56:34 PM

Received 11/28/2022
Humboldt Co P&B Dept.

Ayukii, Sarah –

Thank you for contacting me about the 38030 Highway 96 project. In answer to your first question, yes we have the trained biologists on staff to conduct any/all of the pre-construction surveys outlined in the Biological Resources Evaluation. Cost would be a little dependent on the number of surveys needed (mostly dependent on the timing of project construction). I can give you an estimate once we discuss your tentative project construction schedule. Please advise if you would like to schedule a brief call to discuss (or email is fine, whichever you prefer).

I have attempted to answer your species/survey specific questions below in red font. Please advise if you have any more questions. Thank you! Robert

From: Sara Spence <sspence@karuk.us>
Sent: Friday, October 14, 2022 10:55 AM
To: Robert Edgerton <RobertE@helixepi.com>
Subject: RE: Biological Resources Assessment

Ayukii (Hello) Robert and Happy Friday,

I have finally gone through the full report and have attempted to summarize my understanding of what our next steps are as we try to move our demolition and construction activities forward on the subject parcel in Orleans.

Can you please review and let me know if I captured and summarized it correctly?

Also, can you let me know 1) can you do the necessary surveys, 2) how much advance notice will be required to get you scheduled, and 3) what the costs will be?

1. **Del Norte Salamander:** If work begins between October 15 and May 14 (the “wet” season), a preconstruction survey will be required two weeks beforehand. **IF** any life stage of the salamander is detected, a 100 foot perimeter will be required around the animal during construction. The comment I have is the parcel is only 162’ wide and 467’ long so that does not leave much room to be able to do anything. **Yes, the project site’s dimensions are tight and would be heavily constrained by the exclusion buffer is the salamander was noted on the project site.** Additionally, the edge of the parcel is 300 feet from the Klamath River, and there is private property and Highway 96 in between us and the River, with no creeks or waterways passing through the parcel, so I am curious if those erosion control measures would really apply, and wanted to confirm they only apply if something is actually found, right? **The erosion control measures are to protect runoff from the project site from introducing silt into the river. These measures are required regardless if the pre-construction surveys (if implemented) detect salamander or not. The measures are in place to reduce indirect impact to salamander habitat associated with the river. I hope this makes better sense.**

2. **Bald Eagle, Osprey, Northern Spotted Owl, Other Raptors, and Migratory Birds:** If work BEGINS February 1 through August 31, a preconstruction survey is required two weeks beforehand. If work began, and was continuous before February 1, then no survey is required, unless we have a 14 day period within the date range that we stopped all activity. **This is correct. Continuous construction activities that are initiated prior to February 1 would not trigger the need for pre-construction surveys for these species.**

3. **Special Status Bats:** If there is tree removal, it should occur in the late fall or early spring and a pre-removal survey should be done 14 days beforehand to ensure there are no signs. If activity stops for more than 14 days, another study is required before resuming work. **Tree removal should occur this fall (or next spring, but fall is preferred) when bat activity is notably less prevalent.**

I hope this additional information helps but please advise if you have any more questions! Thank you, Robert

Thank you!!!

Sara R. Spence

Executive Director
Karuk Tribe Housing Authority
PO Box 1159, Happy Camp, CA 96039
(530) 493-1414, Extension 3117

From: Robert Edgerton <RobertE@helixepi.com>
Sent: Tuesday, August 16, 2022 1:26 PM
To: Sara Spence <sspence@karuk.us>
Subject: Biological Resources Assessment

Hi, Sara –

Thank you for your extended patience while we prepared the Biological Resources Assessment for the Orleans property. The document is attached in PDF format along with the referenced attachments (compiled into a single document). I am happy to answer any questions you may have in regards to our approach, results, or conclusions. Thank you, Robert

Robert Edgerton, AICP CEP
Principal Planner

HELIX Environmental Planning, Inc.
11 Natoma Street, Suite 155
Folsom, CA 95630
916.365.8700 tel
916.709.2302 cell
RobertE@helixepi.com
helixepi.com | [LinkedIn](#) | [Facebook](#) | [Twitter](#)

August 16, 2022

Project # 08292.00002.001

Sara R. Spence
Executive Director
Karuk Tribe Housing Authority
PO Box 1159
Happy Camp, CA 96039

**Subject: Biological Resources Assessment Report for the 38030 Highway 96 Project,
Community of Orleans, Humboldt County, California**

Dear Ms. Spence,

HELIX Environmental Planning, Inc. (HELIX) has prepared this biological resources assessment (BRA) report for the project proposed for the 1.72-acre property (project site) located at 38030 Highway 96 (APN 529-111-007) in the unincorporated community of Orleans, Humboldt County, California. The proposed project is the demolition and removal of existing structures and conflicting utilities on the property to allow for the construction of eight tribal housing units. The purpose of our BRA was to evaluate the potential for regionally occurring special-status plant and animal species or sensitive biological habitats to occur in the project area and/or be impacted by the proposed project. This letter report describes the methods and results of our BRA. All referenced figures are included in **Attachment A**. Policies, regulations, and plans pertaining to the protection of biological resources in the Study Area are summarized in **Attachment B**.

For the purposes of this BRA, the Study Area is defined as the 1.74-acre proposed project site with a 500-foot buffer area.

PROJECT LOCATION AND DESCRIPTION

The Study Area is located directly off Highway 96 in the community of Orleans, within an unincorporated area of Humboldt County (Figure 1). The Study Area is approximately 1.74-acres and is located within the unsectioned U.S. Geological Survey 7.5 minute *Orleans, CA* topographic quadrangle. The approximate center of the Study Area is at latitude 41.302039 and longitude -123.541315, NAD 83 (Figure 2). The proposed site plan for the project is depicted in Figure 3.

The Karuk Tribe Housing Authority proposes to demolish and remove all existing structures and conflicting utilities on the project site to allow for the construction of eight tribal housing units. The housing units will be located along a paved cul-de-sac and will feature associated parking units and landscaping. A septic leach field and bioswale are also proposed for installation.

METHODS

Background Research

Background research was conducted to inform and create target lists to focus the survey efforts. Accessible information in public databases pertaining to natural resources in the region of the Study Area were queried. The following site-specific published information was reviewed for this BRA:

- California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database (CNDDDB); For Lonesome Ridge, Orleans, Bark Shanty Gulch, Somes Bar, Fish Lake, Orleans Mtn., Weitchpec, Hopkins Butte, and Salmon Mtn. USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed [June 28, 2022];
- California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39) For: Lonesome Ridge, Orleans, Bark Shanty Gulch, Somes Bar, Fish Lake, Orleans Mtn., Weitchpec, Hopkins Butte, and Salmon Mtn. USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed [June 28, 2022];
- USDA, NRCS. 2022. *Web Soil Survey*. Available online at: <http://websoilsurvey.sc.egov.usda.gov>. [Accessed May 3, 2022];
- U.S. Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation (IPaC). List of threatened and endangered species that may occur in your proposed project location and/or be affected by your proposed project. [Accessed June 28, 2022];
- National Wetlands Inventory; and,
- U.S. Fish and Wildlife Critical Habitat Portal at <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>.

Special-status species are plant and wildlife species that have been afforded special recognition by federal, State, or local resource agencies or organizations. They are generally of relatively limited distribution and may require specialized habitat conditions. Special-status species are defined as meeting one or more of the following criteria:

- Listed or proposed for listing under CESA or FESA;
- Protected under other regulations (e.g., Migratory Bird Treaty Act);
- Included on the CDFW Special Animals List;
- Identified as Rare Plant Rank 1 to 4 by CNPS; or
- Receive consideration during environmental review under CEQA.

Reconnaissance Field Survey

A biological reconnaissance survey was conducted on June 27, 2022, by HELIX Biologist Stephanie McLaughlin, M.S. between 1000 and 1330 hours. The Study Area was systematically surveyed on foot to ensure total search coverage. A 500-foot buffer area surrounding the proposed project site was surveyed with the aid of binoculars as access was limited. All plant and animal species observed onsite during the surveys were recorded, and all biological communities occurring onsite were characterized. Following the field survey, the potential for each species identified in the database query to occur within the Study Area was evaluated based on the site survey, soils, habitats present within the Study Area, and species-specific information.

RESULTS

Prior to the biological field survey, information obtained from the database queries were reviewed and compiled into a table to provide target lists to inform the field survey efforts and to evaluate the potential for each special-status species to occur. The database queries, appended to this document as **Attachment C**, includes these lists of special-status plant and animal species occurring in the project region. The potential for these regionally occurring special-status species to occur in the Study Area is analyzed in **Attachment D**. A total of 27 regionally occurring special-status plant species and 26 regionally occurring special-status wildlife species were identified during the database queries and desktop review.

Only those species known to be present or considered to have a moderate to high potential to occur within the Study Area are discussed further in the following sections.

Special-Status Plant Species

A total of 27 regionally occurring special-status plant species were identified during the database searches and desktop review. The Study Area does not provide habitat for the majority of the regionally occurring special-status plant species, which are associated with aquatic habitats such as seeps, marsh, lakes, rivers, vernal pools, and freshwater wetlands. The remaining species are associated with grasslands, dunes, prairie, old-growth forest, chaparral, montane forest, cismontane woodlands, scrub, and ridgeline habitat.

There is currently no suitable habitat for special-status plant species in the Study Area and there have been no recently documented occurrences of special-status plant species on or adjacent to the Study Area reported in the CNDDDB or CNPS. The Study Area is vegetated with a mix of native and non-native vegetation and has been disturbed to the point where no native or naturalized plant communities are present.

Special-Status Wildlife Species

A total of 26 regionally occurring special-status wildlife species were identified during the database searches and desktop review. The Study Area does not provide habitat for the majority of the regionally occurring special-status wildlife species, which are associated with aquatic habitats such as lakes, ponds, rivers, vernal pools, and freshwater wetlands. The remaining species are associated with wind protected

tree groves, old-growth forest, woodlands, riparian, beach, and cliff habitat, or have specific food species or elevation requirements that were not found in the Study Area.

Environmental Setting

The Study Area is located in rural, unincorporated Humboldt County. The study area is located on the east side of Orleans, north of Highway 96 and the Klamath River. The community of Orleans is surrounded by the Six Rivers National Forest. Land uses surrounding the Study Area includes residential, commercial, institutional, and national forest lands.

Study Area Conditions

The Study Area is a developed site containing several abandoned structures and is accessed via a gravel driveway that encircles the interior of the Study Area. A couple facilities (restroom and shed) are located in the center of the graveled driveway. An uninhabited single-family residence, with associated covered parking structure, is located in the northern portion of the Study Area and a storage shed is located along the eastern boundary of the Study Area. The site is separated from Highway 96 by a wooden fence. Unused equipment and furnishings have been abandoned on the site. Vegetation disturbance (e.g., mowing) appears to be regularly occurring. Historic aerial imagery indicates that structures in the Study Area were constructed sometime between 1973 and 1993. Project site soils and National Wetland Inventory resources in the Study Area are depicted on Figure 4.

Habitat Types/Vegetation Communities

There is one natural habitat type/vegetation community on the site: developed. Habitats and land covers are depicted on Figure 5. A list of species observed during the biological reconnaissance survey is included in **Attachment E**. Representative site photographs are included as **Attachment F**.

Developed habitat covers all 1.74-acres of the Study Area and includes existing structures, the gravel access road, and fruit trees. Vegetated areas may be sparsely to densely vegetated, but do not support a recognizable community or species assemblage. These areas are disturbed and dominated by a mix of native and non-native species, with ornamental species planted in the vicinity of the single-family residence. Species observed in the Study Area include Bermuda grass (*Cynodon dactylon*), Himalayan blackberry (*Rubus armeniacus*), ox-eye daisy (*Leucanthemum vulgare*), and star jasmine (*Trachelospermum jasminoides*). Scattered fruit trees include persimmon (*Diospyros kaki*) and apple (*Malus domestica*). There are several established trees in the Study Area, including 12 coast redwoods (*Sequoia sempervirens*) within the 20-inch size class, as well as Oregon white oak (*Quercus garryana*), Douglas fir (*Pseudotsuga menziesii*), and black locust (*Robinia pseudoacacia*).

Topography

The Study Area is almost entirely flat, with elevation ranges from 403 to 408 feet above sea level.

Soils

The Study Area consists of one soil mapping units (NRCS 2022): Typic Xerofluvents-Riverwash association, 2 to 10 percent slopes (Figure 4).

Typic Xerofluvents-Riverwash association, 2 to 10 percent slopes soils occur on baseslopes, alluvial fans, and toeslopes and consists of sandy and gravelly alluvium. A typical profile for Typic Xerofluvents-Riverwash association is gravelly sandy loam from 0 to 10-inches and stratified extremely gravelly loamy sand to silt loam from 1 to 60 inches. The depth to water table Typic Xerofluvents-Riverwash association soils is greater than 80 inches. Typic Xerofluvents-Riverwash association soils are not the National Hydric Soils List for Humboldt County (NRCS 2015).

Hydrology

The Study Area is located about 250-feet north of the Klamath River within the Boise Creek-Klamath River hydrologic unit (HUC12: 180102090802). Waterways in the region of the Study Area, including Boise Creek flow into the Klamath River and eventually the Pacific Ocean. It is part of the Lower Klamath River Watershed.

National Wetland Inventory (NWI) mapping based on 1984 aerial imagery shows an unnamed tributary, classified as Riverine, located 340-feet east of the Study Area. This feature flows south, into the Klamath River. No other aquatic features are identified in the Study Area based on NWI mapping.

Special-Status Species Evaluation

The site provides suitable habitat for four special-status wildlife species: Del Norte salamander (*Plethodon elongatus*), bald eagle (*Haliaeetus leucocephalus*), osprey (*Pandion haliaetus*), and Townsend's big-eared bat (*Corynorhinus townsendii*) as well as habitat for other migratory birds and raptors. These species are discussed briefly below. In addition, although there is no habitat in the Study Area, marbled murrelet (*Brachyramphus marmoratus*) and Pacific marten (*Martes caurina*) are discussed due to the presence of Critical Habitat and proposed Critical Habitat in proximity to the Study Area. The remaining special-status species were determined to have no potential to occur in the Study Area or are not expected to occur in the Study Area and thus, would not be impacted by the proposed project (**Attachment D**). Therefore, these species are not discussed further in this report.

Northern Spotted Owl

Federal status – Threatened

State status – Threatened

Other – CDFW Watch List

Species Description

Northern spotted owl is found from southwestern British Columbia down through the western half of Washington, Oregon and northern California south at least to Marin County. In California, it occurs in the Klamath Ranges, Cascade Range, and North Coast Ranges. Spotted owls have also been observed in the Santa Cruz Mountains in San Mateo and Santa Cruz counties, but the status of those populations is

poorly known, and it is uncertain whether those birds are northern spotted owl or California spotted owl (*Strix occidentalis occidentalis*). Northern spotted owl prefers late-stage and old-growth forests characterized by a dense, multilayered, multi-species canopy with large overstory trees and varied understory. Forest types it has been observed in include Douglas-fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), grand fir (*Abies grandis*), white fir (*Abies concolor*), ponderosa pine (*Pinus ponderosa*), Shasta red fir (*Abies magnifica* var. *shastensis*), mixed evergreen, mixed conifer hardwood, redwood (*Sequoia sempervirens*), Bishop pine (*Pinus muricata*), and mixed evergreen deciduous. These forests typically are characterized by a high incidence of large trees with various deformities (large cavities, broken tops, mistletoe infections, and other evidence of decadence); large snags; large accumulations of fallen trees and other woody debris on the ground; and sufficient open space below the canopy for spotted owls to fly.

Although it is dependent on old-growth and late-successional forests, there is research that suggests that a mosaic of late-successional forest habitat interspersed with other seral stages may be superior to large, homogeneous expanses of older forest as habitat for the species, at least in areas where woodrats are a major component of the species' diet. Low- to moderate-severity wildfire may enhance habitat for the species by increasing habitat heterogeneity. Diet is variable dependent upon prey availability, but northern flying squirrel (*Glaucomys sabrinus*) (mainly in Washington and Oregon) and dusky-footed wood rat (*Neotoma fuscipes*) (mainly in the Oregon Klamath Ranges and California) dominate the diet both in terms of biomass and quantity. Spotted owl territories tend to be larger where flying squirrels are the primary prey and smaller where wood rats are the primary prey. Other prey occasionally taken include deer mice, (*Peromyscus* spp.), tree voles (*Arborimus* spp.), red-backed voles (*Myodes* spp.), gophers (Geomysidae), snowshoe hare (*Lepus americanus*), bushy-tailed wood rats (*Neotoma cinerea*), birds, and insects. Prey is generally taken using a sit-and-wait technique from a single perch each night. Spotted owl pairs begin forming in February and are typically maintained until the death of one of the partners. Spotted owl uses existing nests, often of corvids, or platforms created by broken treetops or limbs. A clutch of three to four eggs is laid from late March (occasionally as early as mid-March) to mid-April and incubated by the female for approximately 30 days. Young are brooded by the female for eight to 10 days while the male provides food. The flightless young leave the nest at approximately 35 days after hatching, and receive decreasing parental care at least until September, or until they become independent around November.

Survey History

Northern spotted owl was not observed in the Study Area during the biological survey; however, this species is typically only detected during protocol call surveys. The nearest occurrence of Northern spotted owl is within 0.25 mile of the Study Area with a second occurrence within 0.5 mile. There are five occurrences of northern spotted owl within one mile of the Study Area and 347 occurrences of the species within 5 miles (CDFW 2022). At least five northern spotted owl activity centers are located within approximately 2 miles of the Study Area.

Habitat Suitability

Suitable habitat for northern spotted owl is adjacent to the Study Area. The Klamath River located 250-foot south of the Study Area, provides suitable foraging and nesting habitat for Northern spotted owl and the species may forage in the Study Area. The Study Area is surrounded by Northern spotted owl

Critical Habitat on all sides, although the Study Area itself is not within the Critical Habitat boundaries, it is within 0.5-mile of Critical Habitat at its nearest point.

Potential for Impacts

If Northern spotted owl were to nest adjacent to the site prior to construction, impacts to nesting would occur through noise, vibration, and the presence of construction equipment and personnel. Project activities such as clearing and grubbing, grading or other earthwork, or tree removal during the breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance. This would be a potentially significant impact.

The recommended mitigation measures for nesting migratory birds and raptors in the following section would reduce potential impacts to this species to less than significant.

Del Norte Salamander

Federal status – None

State status – None

Other – CDFW Watch List

Species Description

The Del Norte salamander is found along the coast in far northwest California from near Orick, Humboldt County, east to near the Seiad Valley, Siskiyou county and Salyer, Trinity County, and north into southwestern Oregon where they have been found inland along West Cow Creek in Douglas County. The species is terrestrial, strongly associated with moist talus in humid shaded and closed-canopy coastal forests of mixed hardwoods and conifers, but also found in rock rubble of old riverbeds, and under bark and logs on forest floor, usually in rocky areas. The salamander is especially attracted to older forests (Stebbins et al. 2012).

Survey History

Del Norte salamander was not observed in the Study Area during the biological survey. The nearest reported occurrence is 0.93 miles northwest of the Study Area along Camp Creek (CDFW 2022).

Habitat Suitability

Due to the proximity of the Study Area to the Klamath River, there is a potential for the Del Norte salamander to disperse or forage in the Study Area. However, as the Study Area is developed, lacks moist forest debris, and is regularly mown, the potential for occurrence is moderate.

Potential for Impacts

If Del Norte salamander occupies the Study Area or areas adjacent to the site prior to construction, potential adverse effects to the species could include take of individuals using upland areas for dispersal and/or refugia during construction. This would be a potentially significant impact.

The recommended mitigation measures for protected amphibian species in the following section would reduce potential impacts to this species to less than significant.

Bald Eagle

Federal status –Delisted

State status – Endangered

Other – CDFW Fully Protected

Species Description

Bald eagle requires large bodies of water with an abundant fish population. This species also feeds on fish, carrion, small mammals, and waterfowl. In California, the nests are usually located within 1 mile of permanent water. Nests are most often situated in large, old growth, or dominant live trees with open branch work such as ponderosa pine. The nests are usually placed 50 – 200-feet above ground in trees with a commanding view of the area (Zeiner *et al.* 1990).

Survey History

Bald eagle was not observed in the Study Area during the biological survey. The nearest extant occurrence is 1.4-miles south of the Study Area along the Klamath River (CDFW 2022).

Habitat Suitability

Suitable foraging habitat for bald eagle is present in the Study Area. The Klamath River located 250-feet south of the Study Area, provides suitable foraging and nesting habitat for bald eagle and the species may forage in the Study Area.

Potential for Impacts

If bald eagle were to nest within or adjacent to the site prior to construction, impacts to nesting could occur through noise, vibration, and the presence of construction equipment and personnel. Project activities such as clearing and grubbing, grading or other earthwork, or tree removal during the breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance. This would be a potentially significant impact.

The recommended mitigation measures for nesting migratory birds and raptors in the following section would reduce potential impacts to this species to less than significant.

Osprey

Federal status – none

State status – None

Other – CDFW Watch List

Species Description

Osprey breeds in Northern California from the Cascade Ranges southward to Lake Tahoe, and along the coast south to Marin County. The species preys primarily on fish but also predated small mammals, birds, reptiles, and invertebrates. Foraging areas include open, clear waters of rivers, lakes, reservoirs, bays, estuaries, and surf zones. Habitat and nesting requirements for osprey include large trees, snags, and dead-topped trees in open forest habitats for cover and nesting (Zeiner et al. 1988-1990).

Survey History

Osprey was not observed in the Study Area during the biological survey. The nearest extant occurrence is 1.6-miles northeast of the Study Area along the Klamath River (CDFW 2022).

Habitat Suitability

Suitable nesting and foraging habitat for osprey is present in and around the Study Area. The Klamath River located 250-feet south of the Study Area, provides suitable foraging habitat for osprey and the species may nest in the Study Area.

Potential for Impacts

If osprey were to nest within or adjacent to the site prior to construction, impacts to nesting could occur through noise, vibration, and the presence of construction equipment and personnel. Project activities such as clearing and grubbing, grading or other earthwork, or tree removal during the breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance. This would be a potentially significant impact.

The recommended mitigation measures for nesting migratory birds and raptors in the following section would reduce potential impacts to this species to less than significant.

Townsend's Big-eared Bat

Federal status – none

State status – None

Other – CDFW Watch List

Species Description

Townsend's big-eared bat is widely distributed throughout California except alpine and subalpine habitats. This species eats moths, beetles and other insects, which it catches on the wing or by gleaning from vegetation and is typically found near water since it is poor at concentrating its urine. This species uses caves, mines, tunnels, buildings and human-made structures for roosting. Maternity roosts are typically in warm sites. Hibernation sites are typically cold, but not freezing. This species is very sensitive to disturbance and may abandon its roost after one visit (Zeiner *et al.* 1990).

Survey History

Roosting habitat for Townsend's big-eared bat was not observed in the Study Area during the biological survey. The nearest reported occurrence for the species is 5.8-miles north of the Study Area where this species was documented roosting underneath a bridge near Somes Bar (CDFW 2022).

Habitat Suitability

Suitable roosting and foraging habitat for Townsend's big-eared bat is present in and around the Study Area. Any abandoned or vacant buildings in the project area are considered to have the potential to provide roosting habitat for Townsend's big-eared bat.

Potential for Impacts

Potential adverse effects of the proposed project on Townsend's big-eared bat could include harm to individual Townsend's big-eared bats, roost disturbance/loss of active roosting sites, and loss of potential habitat. If any Townsend's big-eared bats were present in any of the parcels in the project area at the time of construction, harm of individuals could occur as a result of contact with construction equipment or personnel and roost disturbance/loss of active roost could result in displacement of individuals subjecting them to increased chance of predation or mortality. Harm to individual Townsend's big-eared bats would be considered a potentially significant impact.

The recommended mitigation measures for special status bats in the following section would reduce potential impacts to this species to less than significant.

Marbled Murrelet

Federal status – Threatened

State status – Endangered

Other status – None

Species Description

Marbled murrelet is pelagic, except during nesting season where it will use old-growth, multi-layered canopied forests up to 50-miles inland from the coast. When nesting trees are not present, this species will nest on the ground or amongst rocks. In California, nesting typically occurs in coastal redwood forest or Douglas fir forests (USFWS 1997).

Survey History

No potential nest sites for marbled murrelet were observed in the Study Area during the biological reconnaissance survey. The nearest reported occurrence of marbled murrelet in the CNDDDB is approximately 23.3-miles southwest of the site along Redwood Creek within Redwood National Park.

Habitat Suitability

The Study Area does not provide suitable nesting habitat for marbled murrelet. The Study Area lacks dense, mature, multi-layer old growth forest and is developed/disturbed. Designated Critical Habitat for this species is located 0.7-miles west of the Study Area; however, the site lacks the primary constituent elements of critical habitat including old growth trees with the presence of deformities and/or large branches to use as a nesting platform.

Potential for Impacts

No impacts to marbled murrelet or designated Critical Habitat are anticipated as a result of the proposed project. Suitable nesting habitat is not present in or adjacent to the Study Area. Pre-construction surveys will be conducted for migratory birds and raptors. If marbled murrelet is observed, coordination will be conducted with USFWS and CDFW to determine the appropriate nest buffer based on the location of the nest and the type of construction activity occurring within proximity to the nest. The recommended mitigation measures for migratory birds and raptors in the following section would reduce potential impacts to this species to less than significant.

Pacific Marten

Federal status – Threatened

State status – Endangered

Other status – CDFW Species of Special Concern

Species Description

Pacific marten is found in coniferous and mixed conifer forests with more than 40 percent canopy closure typically from 1,350 – 3,200 m above mean sea level (amsl) and requires old growth forests that consist primarily of fir and lodgepole pines with cavities for nesting and denning (Zielinski 2014). The species will also den under logs in the snow and form snow tunnels. Pacific marten is active year-round, and typically avoids open areas with no canopy cover, but will forage in meadows, riparian areas and along streams (Zielinski 2014). When traveling, marten typically moves along ridgetops and are capable of traveling up to 15-miles in a single night while foraging (Zeiner et al. 1990).

Survey History

No Pacific marten or potential den sites for this species were observed in the Study Area during the biological reconnaissance survey. The nearest reported occurrence of Pacific marten is approximately 1.4-miles north of the Study Area from 1972 from the vicinity of Slide Gulch (CDFW 2022).

Habitat Suitability

The Study Area does not provide suitable denning habitat for Pacific marten. The Study Area lacks dense, mature, multi-layer old growth forest and is disturbed. Proposed Critical Habitat for this species is located 0.3-miles north of the Study Area; however, the site lacks the primary constituent elements of critical habitat including old growth trees with the presence of cavities to use as a den site.

Potential for Impacts

No impacts to Pacific marten or proposed Critical Habitat are anticipated as a result of the proposed project. Suitable denning habitat is not present in or adjacent to the Study Area. No direct impacts to Pacific marten or potential habitat in the Study Area would be anticipated as a result of the proposed project as Pacific marten would not be expected to be present within the project footprint and there is no suitable habitat for this species in the project footprint.

Migratory Birds and Raptors

As noted in **Attachment B**, migratory and non-game birds are protected during the nesting season by California Fish and Game Code. The Study Area and immediate vicinity provide nesting and foraging habitat for a variety of native birds common to urbanized areas, such as mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), and California towhee (*Melospiza crissalis*). No nests were observed during the reconnaissance survey; however, a variety of migratory birds have the potential to nest in and adjacent to the Study Area, in trees, shrubs and on the ground in vegetation. Project activities such as clearing and grubbing during the avian nesting season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance. Needless destruction of nests, eggs, and chicks would be a violation of the Fish and Game Code and a significant impact.

The recommended mitigation measures for nesting migratory birds and raptors in the following section would reduce potential impacts to this species to less than significant.

Sensitive Natural Communities

Natural communities are defined by one or more characteristic plant species, and the species communities in the majority of the Study Area are not considered characteristic of a sensitive natural community. Due to the disturbed nature of the Study Area and vicinity, there are no terrestrial sensitive natural communities in the Study Area.

RECOMMENDED MITIGATION MEASURES

Protected Amphibian and Reptile Mitigation Measures

The Study Area provides potentially suitable habitat for Del Norte salamander. In the absence of the proposed mitigation measures, potential adverse effects to these protected amphibian species could include take of individuals using upland areas for dispersal and/or refugia during construction. No direct impacts to potential habitat in the Klamath River would be anticipated as a result of the proposed project. However, potential indirect impacts could occur as a result of reduced water quality if contaminated runoff were to enter the Klamath River during construction.

The following mitigation is recommended to avoid potential direct and indirect impacts to special status amphibians:

- If construction commences during the wet season and active dispersal period for these species

(between approximately October 15 and May 14, depending on the precipitation year), preconstruction surveys for Del Norte salamander would be conducted in the Study Area no more than two weeks prior to the initiation of construction activities to ensure that Del Norte salamander are not actively using the Study Area or adjacent areas as a dispersal corridor. Preconstruction surveys would be conducted by a qualified biologist familiar with all life stages and would cover all terrestrial and aquatic habitats on and immediately adjacent to the Study Area that are suitable for Del Norte salamander dispersal.

- If any life stage of Del Norte salamander (e.g., egg, juvenile, or adult) is detected within the Study Area during any surveys or monitoring for the project during construction or decommissioning, USFWS and CDFW shall be notified within 48 hours. The biologist shall monitor the animal to make sure it is not harmed and that it leaves the site on its own. Construction activities will not be allowed within 100-feet of the animal. Handling of listed species without a take permit pursuant to the FESA is not allowed.
- Clearing within the Study Area shall be confined to the minimal area necessary to facilitate construction. To ensure that construction equipment and personnel do not affect sensitive habitat outside of designated work areas, orange barrier fencing shall be erected to clearly define the habitat to be avoided. This will delineate the Environmentally Sensitive Area (ESA) on the project. The integrity and effectiveness of ESA fencing and erosion control measures shall be inspected daily. Corrective actions and repairs shall be carried out immediately for fence breaches and ineffective erosion control BMPs.
- Standard construction BMPs shall be implemented throughout construction, to avoid and minimize adverse effects to the water quality within the Study Area. Appropriate erosion control measures shall be used (e.g., hay bales, filter fences, vegetative buffer strips or other accepted equivalents) to reduce siltation and contaminated runoff from leaving the Study Area and entering the riparian corridor or the Klamath River. The integrity and effectiveness of the BMPs shall be inspected daily by the resident engineer or site foreman. Corrective actions and repairs shall be carried out immediately.
- Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials should not be allowed to enter the Klamath River. A plan for the emergency clean-up of any spills of fuel or other materials should be available when construction equipment is in use.
- Equipment shall be re-fueled and serviced at designated construction staging areas. All construction material and fill shall be stored and contained in a designated area that is located away from channel areas to prevent transport of materials into adjacent streams. The preferred distance is 100-feet from the wetted width of the Klamath River. In addition, a silt fence shall be installed to collect any discharge, and adequate materials should be available for spill clean-up and during storm events.
- Construction vehicles and equipment shall be monitored and maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. Leaking vehicles and equipment shall be removed from the site.

- Building materials storage areas containing hazardous or potentially toxic materials such as herbicides and petroleum products shall be located outside of the 100-year flood zone, have an impermeable membrane between the ground and the hazardous material, and shall be bermed to prevent the discharge of pollutants to ground water and runoff water. The bermed area shall at a minimum have the capacity to store the volume of material placed in it.
- All disturbed soils shall undergo erosion control treatment prior to October 15 and/or immediately after construction is terminated. Appropriate erosion control measures shall be used (e.g., hay bales, filter fences, vegetative buffer strips or other accepted equivalents) to reduce siltation and contaminated runoff from leaving the Study Area. Erosion control blankets shall be installed on any disturbed soils steeper than a 2:1 slope or steeper.
- During Project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
- No monofilament plastic shall be used for erosion control.

Bald Eagle, Osprey, Northern Spotted Owl, Other Raptors, and Migratory Birds

The Study Area and adjacent areas provide suitable nesting habitat for a variety of native birds including native songbirds and raptors. Removal of vegetation containing active nests would potentially result in destruction of eggs and/or chicks; noise, dust, and other anthropogenic stressors in the vicinity of an active nest could lead to forced nest abandonment and mortality of eggs and/or chicks. Needless destruction of eggs or chicks would be a violation of the California Fish and Game Code. Pre-construction surveys should be conducted prior to project implementation to determine if nesting birds are present on or adjacent to the site, so that measures could be implemented if needed to avoid harming nesting birds.

The following mitigation is recommended to reduce potential project impacts to nesting birds:

- If project (construction) ground-disturbing or vegetation clearing and grubbing activities commence during the avian breeding season (February 1 through August 31), a qualified biologist should conduct a pre-construction nesting bird survey no more than 14 days prior to initiation of project activities and again immediately prior to construction. The survey area should include suitable raptor nesting habitat within 500-feet of the project boundary (inaccessible areas outside of the study area can be surveyed from the site or from public roads using binoculars or spotting scopes). Pre-construction surveys are not required in areas where project activities have been continuous since prior to February 1, as determined by a qualified biologist. Areas that have been inactive for more than 14 days during the avian breeding season should be re-surveyed prior to resumption of project activities. If no active nests are identified, no further mitigation is required. If active nests are identified, the California Department of Fish and Wildlife should be consulted to determine appropriate nest buffer zones and the following measure should be implemented:

- A suitable buffer (e.g., 500-feet for raptors; 100-feet for passerines) should be established by a qualified biologist around active nests and no construction activities within the buffer should be allowed until a qualified biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest, or the nest has failed). Encroachment into the buffer may occur at the discretion of a qualified biologist. Any encroachment into the buffer should be monitored by a qualified biologist to determine whether nesting birds are being impacted.

Special-Status Bats

The Study Area and adjacent areas provide suitable roosting habitat for Townsend's big-eared bat. Potential adverse effects of the proposed project to Townsend's big-eared bat, could include harm to individual bats and roost disturbance/loss of active roosting sites. Harm of individuals could occur because of contact with construction equipment or personnel and roost disturbance/loss of active roost could result in displacement of individuals subjecting them to increased chance of predation or mortality. Pre-construction surveys should be conducted prior to project implementation to determine if special-status bat species are present on or adjacent to the site, so that measures could be implemented if needed to avoid harming special status bats.

The following mitigation is recommended to reduce potential project impacts to Townsend's big-eared bats:

- If trees or abandoned structures are to be removed within the Study Area, they should be removed during periods of seasonal bat activity. Tree removal should occur during late fall or early spring when maternal roost areas are generally naturally empty. This approach avoids periods when young and newly born bats are typically present. Prior to tree or structure removal, a qualified biologist should conduct a night emergence and daytime roosting survey for bat species within 14 days prior to removal. If no signs of bats are observed, then a letter report should be prepared to document the survey and provided to the project proponent and no additional measures are recommended. If removal does not commence within 14 days of the clearance survey, or halts for more than 14 days, an additional survey is required prior to resuming or starting work.
- If special-status bats are present and roosting in the Study Area, no trees or structures should be removed until the biologist has determined that a roost site is no longer active, and no bats are present.

SUMMARY/CONCLUSIONS

Study Area Conditions

The Study Area is located in the community of Orleans, off of Highway 96 within an unincorporated area of Humboldt County. The Study Area is in a disturbed condition and supports no sensitive terrestrial biological habitats. The Study Area consists entirely of developed habitat.

Special-Status Species

The Study Area provides suitable habitat for four regionally occurring special-status animal species: Del Norte salamander, bald eagle, osprey, and Townsend's big-eared bat. Implementation of the recommended mitigation measures would reduce the potential for project impacts to these species to less than significant. The study area does not provide suitable habitat for any other regionally occurring special-status plant or animal species, and no additional species have the potential to occur on the property or be impacted by the proposed project.

Migratory Birds and Raptors

There is the potential for common native birds to nest in the study area or on adjacent properties where project activities could result in stress leading to nest failure. Implementation of the recommended mitigation measure for nesting bird surveys would reduce the potential for project impacts to nesting birds to less than significant.

I appreciate the opportunity to assist you on this project. Feel free to contact me with any questions at (916) 365-8700.

Sincerely,



Stephanie McLaughlin, M.S.
Biologist/ISA Certified Arborist WE-12922A

Attachments:

- Attachment A: Figures
- Attachment B: Regulatory Context
- Attachment C: Database Query Results
- Attachment D: Potential for Special-Status Species to Occur in the Study Area
- Attachment E: Plant and Wildlife Species Observed in the Study Area
- Attachment F: Site Photos

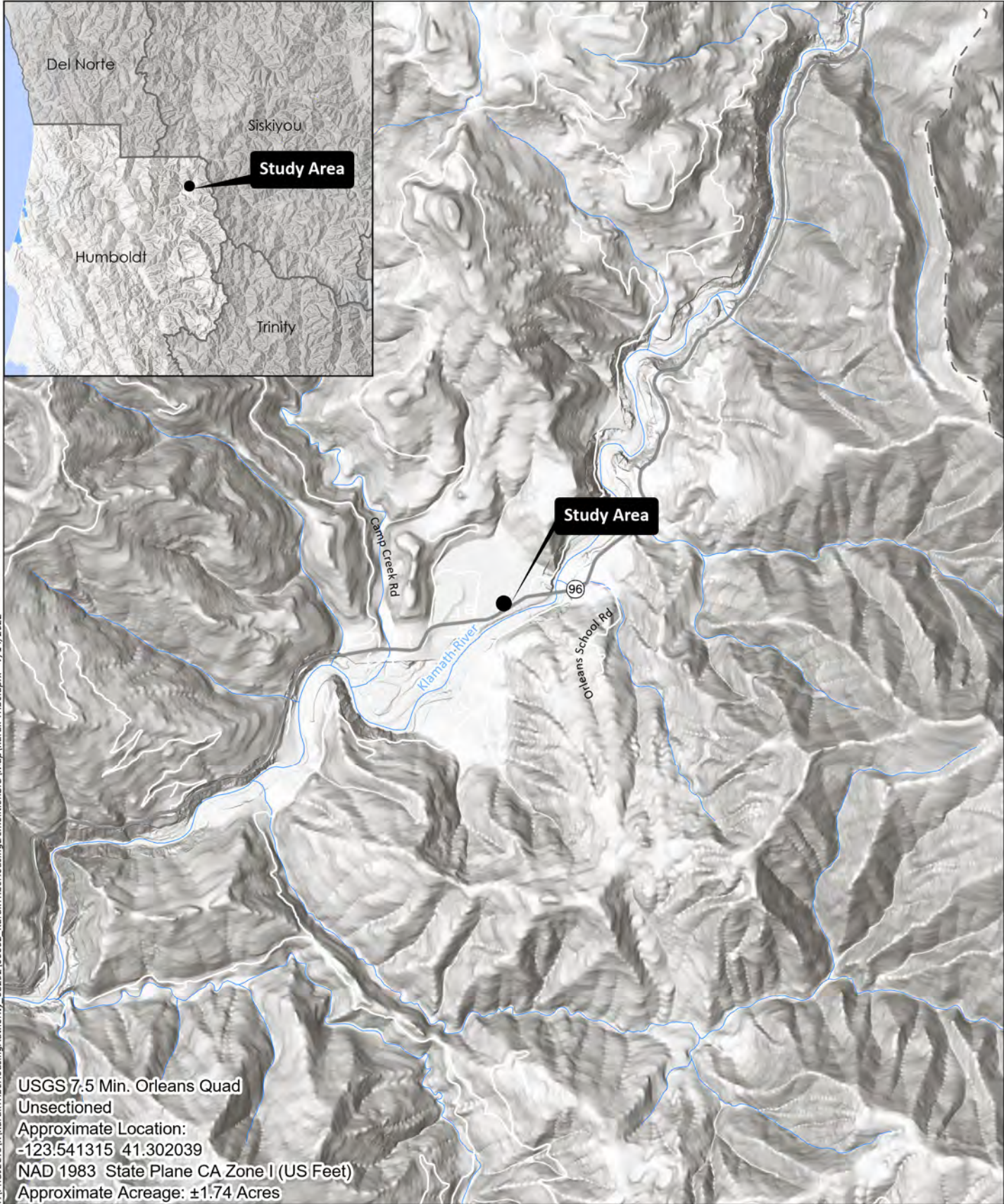
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Attachment A

Figures



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Legend

- Study Area - 1.74 Acres
- ⋯ 500ft Buffer



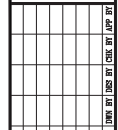
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Source: Aerial (Maxar, 8/16/2021)

PLOT PLAN
APN: 529-111-007
 FOR
KARUK TRIBE HOUSING AUTHORITY
ORLEANS HOUSING DEVELOPMENT
38030 STATE HIGHWAY 96



67 WALNUT WAY
 PO BOX 1097
 WILLOW CREEK, CA 95773
 PH: 925-939-3000
 FX: 925-939-3011

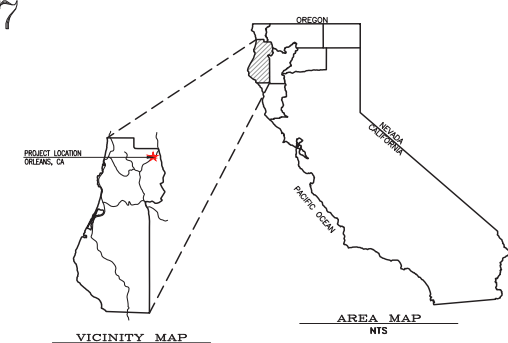


DATE OF ISSUE	MAY 2022
SOURCE	AS SHOWN
PROJECT NO.	236.02
DRAWING NO.	C100

PLOT PLAN
 ORLEANS, HUMBOLDT COUNTY, CALIFORNIA

KARUK TRIBE HOUSING AUTHORITY
 SITE
 APN: 529-111-007

C100



PROJECT SCOPE:
 REMOVE ALL EXISTING STRUCTURES AND CONFLICTING UTILITIES FROM PROPERTY AND PROCEED TO DEVELOP A HOUSING UNIT CONSISTING OF A CUL-DE-SAC AND EIGHT PROPOSED HOUSES. (SEE PLANS)

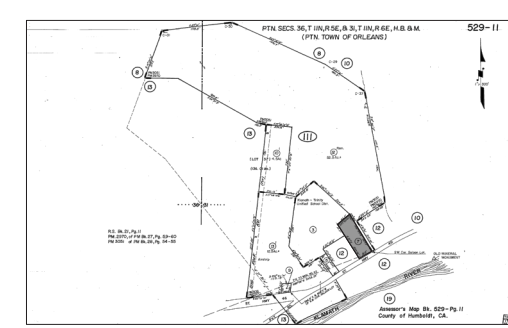
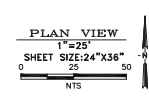
CONTRACTOR ALERT!
 CONTRACTOR MUST CONTACT USA DIG AT 800-227-2600 AT LEAST 72 HOURS BEFORE ANY EARTHWORK OR ACTIVITIES THAT MAY IMPACT EXISTING UNDERGROUND UTILITIES. EXISTING UTILITY ALIGNMENTS BOTH HORIZONTALLY AND VERTICALLY MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ACTIVITIES.

HOUSING NOTES
 1. EA. HOUSE WILL HAVE GARBAGE CANS FOR WEEKLY PICKUP BY KTHA.
 2. EA. HOUSE WILL HAVE A WASHER & DRYER
 3. EA. HOUSE WILL HAVE STANDARD ADDRESSING SIGNAGE.

SRA REQUIREMENTS
 PROVIDE ADEQUATE WATER STORAGE AND DELIVERY AS OUTLINED BY SRA ORDINANCE AND CALFIRE REQUIREMENTS
 PROVIDE ADEQUATE TURN AROUND AND PULLOUTS AS OUTLINED BY SRA ORDINANCE REQUIREMENTS AND CALFIRE REQUIREMENTS

SURVEY NOTES
 A FIELD SURVEY FOR TOPOGRAPHIC PURPOSES WAS CONDUCTED BY TRINITY VALLEY CONSULTING ENGINEERS (TVCE) IN FEBRUARY OF 2020. A BOUNDARY SURVEY WAS CONDUCTED BY TVCE IN FEBRUARY OF 2020. THE PROPERTY LINES SHOWN ARE RECORD PER BOOK 79 OF SURVEYS PAGE 26

GENERAL NOTES
 WATER/WASTEWATER: OCSO POWER: PG&E
 CREEKS/STREAMS: NONE TREES TO BE REMOVED: ± 30
 GRADING: 1,013 CY ZONE: II
 PHONE: FRONTIER






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DATE PLOTTED: 5/20/22 10:45 AM USER: TRINITY VALLEY CONSULTING ENGINEERS, INC. PROJECT: KARUK TRIBE HOUSING AUTHORITY HOUSING DEVELOPMENT 38030 STATE HIGHWAY 96

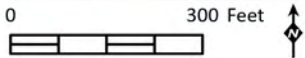
Source: HEGIS 2013

Legend

-  Study Area - 1.74 Acres
-  Riverine
-  Typical Xerofluvents-Riverwash association, 2-10% slopes, 100





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Source: NRCS, 2022; NWI 2022; Aerial (Maxar, 8/16/2021)

Legend

-  Study Area - 1.74 Acres
-  Developed Habitat - 1.74 Acres



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Source: Aerial (Maxar, 8/16/2021)

Attachment B

Regulatory Context

Attachment B

Regulatory Context

Regulatory Setting

Policies, regulations, and plans pertaining to the protection of biological resources in the Study Area are summarized in the following sections.

Federal Regulations

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) enforces the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 USC 1531 et seq.). Species identified as federally threatened or endangered (50 CFR 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed species may be present in the study area and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], [4]). Other federal agencies designate species of concern (species that have the potential to become listed), which are evaluated during environmental review under the National Environmental Protection Act (NEPA) or California Environmental Quality Act (CEQA) although they are not otherwise protected under FESA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 U.S.C. 703–712 of the Act states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the Migratory Bird Treaty Act, of which 58 are legal to hunt. The U.S. Court of Appeals for the 9th Circuit (with jurisdiction over California) has ruled that the MBTA does not prohibit incidental take (952 F 2d 297 – Court of Appeals, 9th Circuit 1991).

Wild and Scenic Rivers Act of 1968

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act safeguards the special character of these rivers, while also recognizing the potential for their appropriate use and development. Rivers may be designated by Congress or the Secretary of the Interior. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries. For federally administered rivers, the designated boundaries generally average one-quarter mile on either bank in the lower 48 states and one-half mile on rivers outside national parks in Alaska in order to protect river-related values.

Attachment B (cont.) Regulatory Context

State Jurisdiction

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050 to 2097) is similar to the FESA. The California Fish and Wildlife Commission is responsible for maintaining lists of threatened and endangered species under CESA. CESA prohibits the take of listed and candidate (petitioned to be listed) species. “Take” under California law means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch capture, or kill (California Fish and Game Code, Section 86). The California Department of Fish and Wildlife (CDFW) can authorize take of a state-listed species under Section 2081 of the California Fish and Game Code if the take is incidental to an otherwise lawful activity, the impacts are minimized and fully mitigated, funding is ensured to implement and monitor mitigation measures, and CDFW determines that issuance would not jeopardize the continued existence of the species. A CESA permit must be obtained if a project will result in the “take” of listed species, either during construction or over the life of the project. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

California Code of Regulations Title 14 and California Fish and Game Code

The official listing of endangered and threatened animals and plants is contained in the California Code of Regulations Title 14 §670.5. A state candidate species is one that the California Fish and Game Code has formally noticed as being under review by CDFW to include in the state list pursuant to Sections 2074.2 and 2075.5 of the California Fish and Game Code.

Legal protection is also provided for wildlife species in California that are identified as “fully protected animals.” These species are protected under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species at any time. CDFW is unable to authorize incidental take of fully protected species unless any such take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan that covers the fully protected species (California Fish and Game Code Section 2835).

California Environmental Quality Act

Under the California Environmental Quality Act of 1970 (CEQA; Public Resources Code Section 21000 et seq.), lead agencies analyze whether projects would have a substantial adverse effect on a candidate, sensitive, or special-status species (Public Resources Code Section 21001(c)). These “special-status” species generally include those listed under FESA and CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under the criteria included CEQA Guidelines Section 15380. Therefore, species that are considered rare are addressed under CEQA regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity; plants ranked as 1A, 1B, 2A, 2B, and 3 are generally considered special-status species under CEQA.¹

¹ The California Rare Plant Rank system can be found at: <<http://www.cnps.org/cnps/rareplants/ranking.php>>

Attachment B (cont.) Regulatory Context

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur.

Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) empowers the Fish and Game Commission to list native plant species, subspecies, or varieties as endangered or rare following a public hearing. To the extent that the location of such plants is known, CDFW must notify property owners that a listed plant is known to occur on their property. Where a property owner has been so notified by CDFW, the owner must notify CDFW at least 10 days in advance of any change in land use (other than changing from one agricultural use to another), in order that CDFW may salvage listed plants that would otherwise be destroyed. Currently, 64 taxa of native plants have been listed as rare under the act.

Nesting Birds

California Fish and Game Code Subsections 3503 and 3800 prohibit the possession, take, or needless destruction of birds, their nests, and eggs, and the salvage of dead nongame birds. California Fish and Game Code Subsection 3503.5 protects all birds in the orders of Falconiformes and Strigiformes (birds of prey). Fish and Game Code Subsection 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act. The Attorney General of California has released an opinion that the Fish and Game Code prohibits incidental take.

Jurisdictional Waters

Federal Jurisdiction

Any person, firm, or agency planning to alter or work in “waters of the U.S.,” including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403).

Waters of the U.S. generally include:

- The territorial seas and traditional navigable waters;
- Tributaries to those waters;
- Certain lakes, ponds, and impoundments; and
- Wetlands adjacent to jurisdictional waters.

Attachment B (cont.) Regulatory Context

The following types of aquatic resources are generally not considered waters of the U.S.:

- Groundwater
- Diffuse stormwater run-off
- manmade ditches dug in uplands
- Prior converted cropland (PCC)
- Artificially irrigated areas
- Artificial lakes and ponds
- Water-filled depressions incidental to mining or construction activity
- Stormwater control features
- Groundwater recharge, water reuse, and wastewater recycling structures
- Waste treatment systems

With non-tidal waters, in the absence of adjacent wetlands, the extent of USACE jurisdiction extends to the ordinary high water mark (OHWM) – the line on the shore established by fluctuations of water and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, or the presence of litter and debris. Wetlands are defined in 33 CFR Part 328 as:

“those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

Federal and state regulations pertaining to waters of the U.S., including wetlands, are discussed below.

Clean Water Act (33 USC 1251-1376). The CWA provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California and may require State Water Quality Certification before other permits are issued.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there is no practicable alternative that would have less adverse impacts.

State Jurisdiction

Regional Water Quality Control Board

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification

Attachment B (cont.) Regulatory Context

(WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the Federal CWA. Although the Clean Water Act is a Federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE's permits for fill and dredge discharges within Waters of the United States, and now also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review, and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Office of Administrative Law approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code §13050(e)), "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to Waters of the State, which includes Waters of the U.S. and non-federal Waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

California Department of Fish and Wildlife

The CDFW is a trustee agency that has jurisdiction under Section 1600 et seq. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of streambeds...except when the department has been notified pursuant to Section 1601." Additionally, CDFW asserts jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over four inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

Attachment B (cont.) Regulatory Context

Generally, CDFW recommends submitting an application for a Streambed Alteration Agreement (SAA) for any work done within the lateral limit of water flow or the edge of riparian vegetation, whichever is greater.

Attachment C

Database Query Results

CNPS Rare Plant Inventory





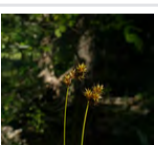





Search Results








29 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [1A:1B:2A:2B:3] , Quad is one of

[4112335:4112334:4112345:4112344:4112326:4112325:4112346:4112336:4112324]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
<u><i>Astragalus umbraticus</i></u>	Bald Mountain milk-vetch	Fabaceae	perennial herb	May-Aug	None	None	G4	S2	2B.2	 ©2013 Scot Loring
<u><i>Buxbaumia viridis</i></u>	green shield-moss	Buxbaumiaceae	moss		None	None	G3G4	S2	2B.2	 © 2021 Scot Loring
<u><i>Carex halliana</i></u>	Oregon sedge	Cyperaceae	perennial rhizomatous herb	(May)Jul-Sep	None	None	G4	S2	2B.3	 ©2010 Keir Morse
<u><i>Carex hystericina</i></u>	porcupine sedge	Cyperaceae	perennial rhizomatous herb	May-Jun	None	None	G5	S2	2B.1	 ©2014 Robert E. Preston, Ph.D.
<u><i>Carex praticola</i></u>	northern meadow sedge	Cyperaceae	perennial herb	May-Jul	None	None	G5	S2	2B.2	 ©2013 Scot Loring
<u><i>Cornus unalaschkensis</i></u>	bunchberry	Cornaceae	perennial rhizomatous herb	May-Jul	None	None	G5	S2	2B.2	 © 2021 Scot Loring
<u><i>Epilobium oregonum</i></u>	Oregon fireweed	Onagraceae	perennial herb	Jun-Sep	None	None	G2	S2	1B.2	 © 2015 Steve Matson
<u><i>Erythronium oregonum</i></u>	giant fawn lily	Liliaceae	perennial herb	Mar-Jun(Jul)	None	None	G4G5	S2	2B.2	 ©2021 Scot Loring

<u><i>Erythronium revolutum</i></u>	coast fawn lily	Liliaceae	perennial bulbiferous herb	Mar- Jul(Aug)	None	None	G4G5	S3	2B.2		©2007 Steve Matson
<u><i>Gentiana plurisetosa</i></u>	Klamath gentian	Gentianaceae	perennial herb	Jul-Sep	None	None	G2G3	S2	1B.3		©2011 Kjirsten Wayman
<u><i>Gilia capitata</i></u> <u>ssp. <i>pacifica</i></u>	Pacific gilia	Polemoniaceae	annual herb	Apr-Aug	None	None	G5T3	S2	1B.2		© 2016 Steve Matson
<u><i>Iliamna latibracteata</i></u>	California globe mallow	Malvaceae	perennial herb	Jun-Aug	None	None	G2G3	S2	1B.2		©2013 Scot Loring
<u><i>Juncus dudleyi</i></u>	Dudley's rush	Juncaceae	perennial herb	Jul-Aug	None	None	G5	S1	2B.3		© 2017 Dean Wm. Taylor
<u><i>Kopsiopsis hookeri</i></u>	small groundcone	Orobanchaceae	perennial rhizomatous herb (parasitic)	Apr-Aug	None	None	G4?	S1S2	2B.3		©2016 Vernon Smith
<u><i>Lewisia cotyledon</i></u> var. <u><i>heckneri</i></u>	Heckner's lewisia	Montiaceae	perennial herb	May-Jul	None	None	G4T3	S3	1B.2		©2010 Neal Kramer
<u><i>Lewisia cotyledon</i></u> var. <u><i>howellii</i></u>	Howell's lewisia	Montiaceae	perennial herb	Apr-Jul	None	None	G4T4Q	S3	3.2		© 2021 Scot Loring
<u><i>Lewisia kelloggii</i></u> <u>ssp. <i>hutchisonii</i></u>	Hutchison's lewisia	Montiaceae	perennial herb	(Apr)May- Aug	None	None	G3G4T3Q	S3	3.2		Dean Wm. Taylor 2006
<u><i>Lomatium martindalei</i></u>	Coast Range lomatium	Apiaceae	perennial herb	May- Jun(Aug)	None	None	G5	S2	2B.3		©2014 Barry Rice

<u><i>Montia howellii</i></u>	Howell's montia	Montiaceae	annual herb	(Feb)Mar-May	None	None	G3G4	S2	2B.2	 © 2004 Dean Wm. Taylor
<u><i>Oenothera wolfii</i></u>	Wolf's evening-primrose	Onagraceae	perennial herb	May-Oct	None	None	G2	S1	1B.1	 ©2017 Dana York
<u><i>Piperia candida</i></u>	white-flowered rein orchid	Orchidaceae	perennial herb	(Mar)May-Sep	None	None	G3	S3	1B.2	 ©2016 Barry Rice
<u><i>Prosartes parvifolia</i></u>	Siskiyou bells	Liliaceae	perennial bulbiferous herb	May-Sep	None	None	G2	S2	1B.2	 ©2010 Kjirsten Wayman
<u><i>Rorippa columbiae</i></u>	Columbia yellow cress	Brassicaceae	perennial rhizomatous herb	May-Sep	None	None	G3	S2	1B.2	 ©2013 Justy Leppert
<u><i>Schoenoplectus subterminalis</i></u>	water bulrush	Cyperaceae	perennial rhizomatous herb (aquatic)	Jun-Aug(Sep)	None	None	G4G5	S3	2B.3	 Dean Wm. Taylor (1996)
<u><i>Sidalcea elegans</i></u>	Del Norte checkerbloom	Malvaceae	perennial rhizomatous herb	May-Jul	None	None	G4?	S2?	3.3	No Photo Available
<u><i>Sidalcea oregana</i> ssp. <i>eximia</i></u>	coast checkerbloom	Malvaceae	perennial herb	Jun-Aug	None	None	G5T1	S1	1B.2	No Photo Available
<u><i>Silene hookeri</i></u>	Hooker's catchfly	Caryophyllaceae	perennial herb	(Mar)May-Jul	None	None	G4	S2	2B.2	 ©2014 John Doyen
<u><i>Silene marmorensis</i></u>	Marble Mountain champion	Caryophyllaceae	perennial herb	Jun-Aug	None	None	G2	S2	1B.2	 ©2021 Dana York
<u><i>Thermopsis robusta</i></u>	robust false lupine	Fabaceae	perennial rhizomatous herb	May-Jul	None	None	G2	S2	1B.2	 ©2018

Showing 1 to 29 of 29 entries

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CONTACT US

Send questions and comments to rareplants@cnps.org.

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[The California Lichen Society](#)
[California Natural Diversity Database](#)
[The Jepson Flora Project](#)
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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Lonesome Ridge (4112346) OR Orleans (4112335) OR Orleans Mtn. (4112334) OR Bark Shanty Gulch (4112345) OR Fish Lake (4112336) OR Weitchpec (4112326) OR Hopkins Butte (4112325) OR Salmon Mtn. (4112324))

Table with 7 columns: Species, Element Code, Federal Status, State Status, Global Rank, State Rank, Rare Plant Rank/CDFW SSC or FP. Rows include species like Accipiter gentilis, Ancotrema voyanum, Anomobryum julaceum, etc.



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Cypseloides niger</i> black swift	ABNUA01010	None	None	G4	S2	SSC
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Entosphenus similis</i> Klamath River lamprey	AFBAA02140	None	None	G3G4Q	S3	SSC
<i>Epilobium oregonum</i> Oregon fireweed	PDONA060P0	None	None	G2	S2	1B.2
<i>Erythronium oregonum</i> giant fawn lily	PMLIL0U0C0	None	None	G4G5	S2	2B.2
<i>Erythronium revolutum</i> coast fawn lily	PMLIL0U0F0	None	None	G4G5	S3	2B.2
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<i>Gentiana plurisetosa</i> Klamath gentian	PDGEN060V0	None	None	G2G3	S2	1B.3
<i>Gilia capitata ssp. pacifica</i> Pacific gilia	PDPLM040B6	None	None	G5T3	S2	1B.2
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S1S2	
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<i>Helminthoglypta hertleini</i> Oregon shoulderband	IMGASC2280	None	None	G3Q	S1S2	
<i>Helminthoglypta talmadgei</i> Trinity shoulderband	IMGASC2630	None	None	G2	S2	
<i>Iliamna latibracteata</i> California globe mallow	PDMAL0K040	None	None	G2G3	S2	1B.2
<i>Juncus dudleyi</i> Dudley's rush	PMJUN01390	None	None	G5	S1	2B.3
<i>Klamath/No Coast Spring Run Chinook/Summer Steelhead Stream</i> Klamath/No Coast Spring Run Chinook/Summer Steelhead Stream	CARB2333CA	None	None	GNR	SNR	
<i>Klamath/North Coast Fall/Winter Run Chinook Salmon River</i> Klamath/North Coast Fall/Winter Run Chinook Salmon River	CARB2332CA	None	None	GNR	SNR	
<i>Klamath/North Coast Interior Headwater Fishless Stream</i> Klamath/North Coast Interior Headwater Fishless Stream	CARB2220CA	None	None	GNR	SNR	
<i>Klamath/North Coast Rainbow Trout Stream</i> Klamath/North Coast Rainbow Trout Stream	CARB2312CA	None	None	GNR	SNR	
<i>Kopsiopsis hookeri</i> small groundcone	PDORO01010	None	None	G4?	S1S2	2B.3



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Lewisia cotyledon var. heckneri</i> Heckner's lewisia	PDPOR04052	None	None	G4T3	S3	1B.2
<i>Lomatium martindalei</i> Coast Range lomatium	PDAP11B140	None	None	G5	S2	2B.3
<i>Margaritifera falcata</i> western pearlshell	IMBIV27020	None	None	G4G5	S1S2	
<i>Martes caurina humboldtensis</i> Humboldt marten	AMAJF01012	Threatened	Endangered	G4G5T1	S1	SSC
<i>Mielichhoferia elongata</i> elongate copper moss	NBMUS4Q022	None	None	G5	S3S4	4.3
<i>Monadenia marmorotis</i> marble sideband	IMGASC7060	None	None	G1	S1	
<i>Montia howellii</i> Howell's montia	PDPOR05070	None	None	G3G4	S2	2B.2
<i>Oenothera wolfii</i> Wolf's evening-primrose	PDONA0C1K0	None	None	G2	S1	1B.1
<i>Oncorhynchus clarkii clarkii</i> coast cutthroat trout	AFCHA0208A	None	None	G5T4	S3	SSC
<i>Oncorhynchus mykiss irideus pop. 36</i> summer-run steelhead trout	AFCHA0213B	None	Candidate Endangered	G5T4Q	S2	SSC
<i>Oncorhynchus tshawytscha pop. 30</i> chinook salmon - upper Klamath and Trinity Rivers ESU	AFCHA02056	Candidate	Threatened	G5T2Q	S2	SSC
<i>Pandion haliaetus</i> osprey	ABNKC01010	None	None	G5	S4	WL
<i>Pekania pennanti</i> Fisher	AMAJF01020	None	None	G5	S2S3	SSC
<i>Piperia candida</i> white-flowered rein orchid	PMORC1X050	None	None	G3	S3	1B.2
<i>Plethodon elongatus</i> Del Norte salamander	AAAAD12050	None	None	G4	S3	WL
<i>Prosartes parvifolia</i> Siskiyou bells	PMLIL0R014	None	None	G2	S2	1B.2
<i>Ptilidium californicum</i> Pacific fuzzwort	NBHEP2U010	None	None	G4G5	S3S4	4.3
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
<i>Rana cascadae</i> Cascades frog	AAABH01060	None	Candidate Endangered	G3G4	S3	SSC
<i>Rhyacotriton variegatus</i> southern torrent salamander	AAAAJ01020	None	None	G3G4	S2S3	SSC
<i>Rorippa columbiae</i> Columbia yellow cress	PDBRA27060	None	None	G3	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Schoenoplectus subterminalis</i> water bulrush	PMCYP0Q1G0	None	None	G4G5	S3	2B.3
<i>Sedum flavidum</i> pale yellow stonecrop	PDCRA0A0L2	None	None	G3	S3	4.3
<i>Sidalcea oregana ssp. eximia</i> coast checkerbloom	PDMAL110K9	None	None	G5T1	S1	1B.2
<i>Silene hookeri</i> Hooker's catchfly	PDCAR0U2M0	None	None	G4	S2	2B.2
<i>Silene marmorensis</i> Marble Mountain campion	PDCAR0U0Z0	None	None	G2	S2	1B.2
<i>Thermopsis robusta</i> robust false lupine	PDFAB3Z0D0	None	None	G2	S2	1B.2
<i>Vespericola karokorum</i> Karak hesperian	IMGASA4040	None	None	G2	S2	

Record Count: 66

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

Humboldt County, California



Local office

Arcata Fish And Wildlife Office

☎ (707) 822-7201

📅 (707) 822-8411

1655 Heindon Road
Arcata, CA 95521-4573

NOT FOR CONSULTATION

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. IPaC only shows species that are regulated by USFWS (see FAQ).

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

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

Mammals

NAME	STATUS
Pacific Marten, Coastal Distinct Population Segment <i>Martes caurina</i> Wherever found There is proposed critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/9081	Threatened

Birds

NAME	STATUS
Marbled Murrelet <i>Brachyramphus marmoratus</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl <i>Strix occidentalis caurina</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover <i>Charadrius nivosus nivosus</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3911	Threatened

Insects

NAME	STATUS
------	--------

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

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 <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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.)

Allen's Hummingbird *Selasphorus sasin*

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

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Jan 1 to Sep 30

Golden Eagle *Aquila chrysaetos*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Breeds Jan 1 to Aug 31

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

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

<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

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

<https://ecos.fws.gov/ecp/species/3914>

Rufous Hummingbird *selasphorus rufus*

Breeds Apr 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/8002>

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.

- 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 $0.05/0.25 = 0.2$.
- 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.

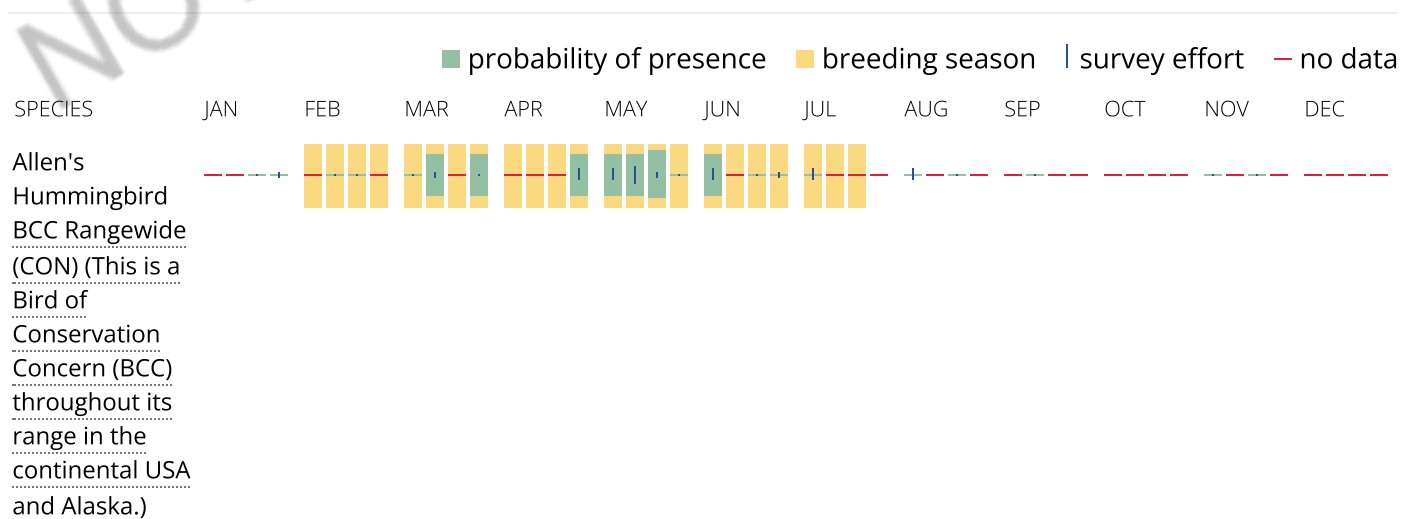
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

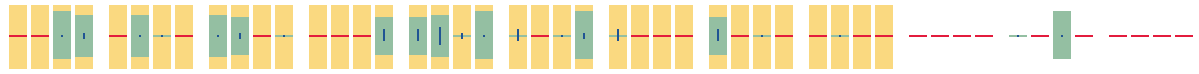
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

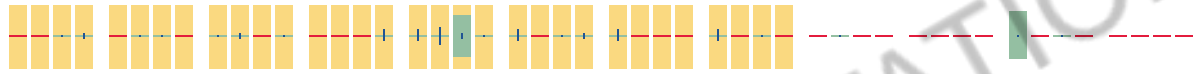
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



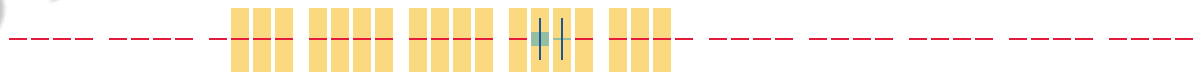
Bald Eagle
Non-BCC
Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Golden Eagle
Non-BCC
Vulnerable (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.)



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



NOT FOR CONSULTATION



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

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

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

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

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

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

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

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

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

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to 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.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

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

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

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

Data limitations

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

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

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

Data exclusions

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

Attachment D

Potential for Special-
Status Species to Occur

Attachment D

Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
Plants			
<i>Astragalus umbraticus</i> Bald Mountain Milk-vetch	--/--/2B.2	A perennial herb found in dry, open oak/pine woodlands and lower montane coniferous forests, occasionally on roadsides from 150 – 1,250 meters elevation. Blooms May – August (CNPS 2022).	Will not occur. There is no suitable woodland or montane forest habitat in the Study Area.
<i>Buxbaumia viridis</i> Green Shield-moss	--/--/2B.2	A moss found on fallen, decorticated wood or humus in lower montane coniferous forests, subalpine coniferous forests, and upper montane coniferous forests from 975 – 2,200 meters elevation. No bloom period (CNPS 2022).	Will not occur. There is no suitable subalpine or montane forest habitat in the Study Area.
<i>Carex halliana</i> Oregon Sedge	--/--/2B.3	A perennial herb often found in pumice soils in meadows, seeps, and subalpine and upper montane coniferous forest from 1,370 – 2,105 meters elevation. Blooms (May) July - September (CNPS 2022).	Will not occur. There is no suitable seep, meadow, subalpine or montane forest habitat in the Study Area.
<i>Carex hystericina</i> Porcupine Sedge	--/--/2B.1	A perennial rhizomatous herb found on pumice soils in marshes, swamps and streambanks from 610 – 915 meters elevation. Blooms May – June (CNPS 2022).	Will not occur. There are no pumice soils or suitable marsh, swamp, or streambank habitat in the Study Area.
<i>Carex praticola</i> Northern Meadow Sedge	--/--/2B.2	A perennial herb found in mesic meadows and seeps from 0 – 3,200 meters elevation. Blooms May – July (CNPS 2022).	Will not occur. There is no suitable meadow or seep habitat in the Study Area.
<i>Cornus unalaschkensis</i> Bunchberry	--/--/2B.2	A perennial rhizomatous herb found in bogs, fens, meadows, seeps, and North Coast coniferous forests from 60 - 1920 meters elevation. Several populations at the southern end of its distribution in CA	Will not occur. There is no suitable bog, fen, meadow, seep, or North Coast coniferous forest habitat in the Study Area.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
		are extirpated. Blooms May-July (CNPS 2022).	
<i>Epilobium oregonum</i> Oregon fireweed	--/--/1B.2	A perennial herb found on mesic soils in bogs, fens, lower montane coniferous forest, meadows, seeps, and upper montane coniferous forest from 500 – 2240 meters elevation. Blooms June – September. (CNPS 2022).	Will not occur. There are no suitable bog, fen, meadow, seep, or montane forest habitats in the Study Area.
<i>Erythronium oregonum</i> giant fawn lily	--/--/2B.2	A perennial rhizomatous herb found in serpentinite, rocky, openings in cismontane woodlands, meadows and seeps from 100 - 1150 meters elevation. Blooms from May – July (CNPS 2022).	Will not occur. There are no rocky, serpentine soils in the Study Area.
<i>Erythronium revolutum</i> Coast Fawn lily	--/--/2B.2	A perennial bulbiferous herb found on mesic soils and streambanks in bogs and fens, broadleafed upland forest, and North Coast coniferous forest from 0 - 1600 meters elevation. Blooms March – July (August). Associated species include Douglas fir, tanoak, and Pacific madrone (CNPS 2022).	Will not occur. There are no suitable mesic soils or bog, fen, or forest habitats in the Study Area.
<i>Gentiana plurisetosa</i> Klamath Gentian	--/--/1B.3	A perennial herb found on mesic soils in meadows, seeps, and lower and upper montane coniferous forests from 1,200 – 1,900 meters elevation. Blooms July – September (CNPS 2022).	Will not occur. There are no suitable meadow, seep, or montane forest habitats in the Study Area.
<i>Gilia capitata ssp. pacifica</i> Pacific Gilia	--/--/1B.2	An annual herb found in coastal bluff scrub, chaparral openings, coastal prairies, and valley and foothill grassland from 5 –	Will not occur. There are no suitable scrub, chaparral, prairie or grassland habitats in the Study Area.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
		1665 meters elevation. Blooms April – August (CNPS 2022).	
<i>Iliamna latibracteata</i> California Globe Mallow	--/--/1B.2	A perennial bulbiferous herb often found in burned areas in montane chaparral, lower montane coniferous forest, mesic North Coast coniferous forests and streambanks in riparian scrub from 60 – 2,000 meters elevation. Blooms June – August (CNPS 2022).	Will not occur. There are no burned areas or suitable chaparral, riparian scrub, or forest habitats in the Study Area.
<i>Juncus dudleyi</i> Dudley's Rush	--/--/2B.3	A perennial herb found in mesic lower montane coniferous forests from 455 – 2,000 meters elevation. Blooms July – August (CNPS 2022).	Will not occur. There is no suitable mesic montane forest habitat in the Study Area. There is a historic occurrence of the species in the Study Area. The occurrence is dated to 1944 and pre-dates construction in the Study Area (CDFW 2022).
<i>Kopsiopsis hookeri</i> Small Groundcone	--/--/2B.3	A parasitic perennial rhizomatous herb found in North Coast coniferous forest from 90 – 885 meters elevation. Blooms April – August. Microsite habitat characteristics include shrubby places in open woods, generally found on salal (<i>Gaultheria shallon</i>) (CNPS 2022).	Will not occur. There is no suitable North Coast coniferous forest habitat in the Study Area. The primary host plant, salal, was not observed on the site.
<i>Lewisia cotyledon</i> var. <i>heckneri</i> Heckner's Lewisia	--/--/1B.2	A perennial herb found in coastal bluff scrub, lower montane coniferous forests, meadows, and seeps from 240 – 3,000 meters elevation. Blooms May – June (August) (CNPS 2022).	Will not occur. There are no suitable scrub, meadow, seep, or montane forest habitats in the Study Area.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<i>Lomatium martindalei</i> Coast Range Lomatium	--/--/2B.3	A perennial herb found on rocky soils in lower montane coniferous forests from 225 – 2,100 meters elevation. Blooms May – July (CNPS 2022).	Will not occur. There is no suitable montane forest habitat in the Study Area.
<i>Montia howellii</i> Howell's Montia	--/--/2B.2	An annual herb found on vernal mesic soils in vernal pools, north coast coniferous forest, meadows and seeps from 0 – 835 meters elevation. Blooms (January-February) March-May. Microsite habitat characteristics include vernal wet areas with compacted soils (CNPS 2022).	Will not occur. There is no suitable vernal pool, north coast coniferous forest, meadow or seep habitat in the Study Area.
<i>Oenothera wolfii</i> Wolf's Evening-primrose	--/--/1B.1	A perennial herb found on sandy, usually mesic soils in coastal bluff scrub, coastal dunes, coastal prairies, and lower montane coniferous forests from 3 – 800 meters elevation. Blooms May – October (CNPS 2022).	Will not occur. There are no suitable scrub, dune, prairie, or montane forest habitats in the Study Area.
<i>Piperia candida</i> White-flowered Rein Orchid	--/--/1B.2	A perennial herb often found in serpentinite soils in broadleaved upland forests, lower montane coniferous forests, and North Coast coniferous forests from 30 – 1310 meters elevation. Blooms (March)May-September (CNPS 2022).	Will not occur. There is no suitable forest habitat in the Study Area.
<i>Prosartes parvifolia</i> Siskiyou Bells	--/--/1B.2	A perennial bulbiferous herb found in burned disturbed areas and along roadsides in upper and lower montane coniferous forests from 700 – 1,525 meters elevation. Blooms May – September (CNPS 2022).	Will not occur. There is no suitable montane forest habitat in the Study Area.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<i>Rorippa columbiae</i> Columbia Yellow Cress	--/--/1B.2	A perennial rhizomatous herb found on mesic soils in lower montane coniferous forests, meadows, seeps, playas, and vernal pools from 1,200 – 1,800 meters elevation. Blooms May – September (CNPS 2022).	Will not occur. There are no suitable vernal pool, montane forest, playa, meadow or seep habitats in the Study Area. There is a historic occurrence of the species in the Study Area. The occurrence is dated to 1956 and pre-dates construction in the Study Area (CDFW 2022).
<i>Schoenoplectus subterminalis</i> Water Bulrush	--/--/2B.3	A perennial rhizomatous aquatic herb found in bogs, fens, and montane lake margins from 750 – 2,250 meters elevation. Blooms June – August (September) (CNPS 2022).	Will not occur. There are no suitable bog, fen, or montane lake habitats in the Study Area.
<i>Sidalcea elegans</i> Del Norte checkerbloom	--/--/3.3	A perennial rhizomatous herb found in serpentinite soils in chaparral and lower montane coniferous forests from 215 – 1,365 meters elevation. Blooms May – July (CNPS 2022).	Will not occur. There are no suitable chaparral or montane forest habitats in the Study Area.
<i>Sidalcea oregana</i> ssp. <i>eximia</i> Coast Checkerbloom	--/--/1B.2	A perennial herb found in lower montane coniferous forests, meadows, seeps, and North Coast coniferous forests from 5 – 1,340 meters elevation. Blooms June – August (CNPS 2022).	Will not occur. There is no suitable montane forest, north coast coniferous forest, meadow or seep habitats in the Study Area.
<i>Silene hookeri</i> Hooker's Catchfly	--/--/2B.2	A perennial herb often found in rocky, serpentinite openings in chaparral, cismontane woodlands, and lower montane coniferous forests from 150 – 1,260 meters elevation. Blooms (March)May – July (CNPS 2022).	Will not occur. There are no suitable chaparral, woodland, or forest habitats in the Study Area. There is a historic occurrence of the species in the Study Area. The occurrence is dated to 1929 and

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
			pre-dates construction in the Study Area (CDFW 2022).
<i>Silene marmorensis</i> Marble Mountain Campion	--/--/1B.2	A perennial herb found in broadleaf upland forests, chaparral, cismontane woodlands, and lower montane coniferous forests from 170 – 1,250 meters elevation. Blooms June and August (CNPS 2022).	Will not occur. There are no suitable chaparral, woodland, or forest habitats in the Study Area.
<i>Thermopsis robusta</i> Robust False Lupine	--/--/1B.2	A perennial rhizomatous herb found along ridgetops in broadleaf upland forests and North Coast coniferous forests from 150 – 1,500 meters elevation. Blooms May – July (CNPS 2022).	Will not occur. There are no suitable ridgeline or forest habitats in the Study Area. There is a historic occurrence of the species in the Study Area. The occurrence is dated to 1931 and pre-dates construction in the Study Area (CDFW 2022).

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
Animals			
Invertebrates			
<i>Bombus occidentalis</i> Western Bumble Bee	--/SCE/--	<p>Bumble bees are primitively eusocial insects that live in underground colonies made up of one queen, female workers, and reproductive members of the colony. New colonies are initiated by solitary queens, generally in the early spring, which typically occupy abandoned rodent burrows (Thorp et al. 1983). This species is a generalist forager and have been reported visiting a wide variety of flowering plants. A short-tongued bumble bee; select food plants include <i>Melilotus</i> spp., <i>Cirsium</i> spp., <i>Trifolium</i> spp., <i>Centaurea</i> spp., <i>Eriogonum</i> spp., and <i>Chrysothamnus</i> spp. (Koch et al. 2012). This species has a short tongue and typically prefers open flowers with short corollas but is known to chew through the base of flowers with long corollas. The flight period for queens in California is from early February to late November, peaking in late June and late September. New queens hibernate over the winter and initiate a new colony the following spring (Thorp et al. 1983). Rare throughout its range and in decline west of the Sierra Nevada crest.</p>	<p>Will not occur. There are no wind protected tree groves in the Study Area. The last reported occurrence of this species from the Study Area vicinity is from 1969, which pre-dates construction in the Study Area (CDFW 2022).</p>

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<p><i>Bombus suckleyi</i> Suckley's cuckoo bumble bee</p>	<p>--/--/CDFW Special Animal</p>	<p>Suckley's bumble bee is a social-parasite, it invades the nests of the host bumble bees, including the western bumble bee, and relies on host species workers to provision its larvae. Suckley's bumble bee inhabits western meadows at a wide range of elevations. Suckley's bumble bee rely on flowers through the entire growing season. The species is a generalist forager and has been reported on a wide range of flowers mostly in the Asteraceae family and some in the Fabaceae family. The nests that host Suckley's bumble bee are primarily underground cavities that have been created naturally or by other animals such as abandoned rodent nests (Hatfield and LeBuhn 2007).</p>	<p>Will not occur. There are no meadows in the Study Area. The last reported occurrence of this species from the Study Area vicinity is from 1968, which pre-dates construction in the Study Area (CDFW 2022).</p>

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<p><i>Danaus plexippus</i> Monarch Butterfly</p>	<p>FCE/--/--</p>	<p>The federal listing on December 17, 2020 was for overwintering populations of Monarch butterflies that roost in wind protected tree groves, especially with Eucalyptus sp., and species of pine or cypress with nectar and water sources nearby. Winter roost sites extend along the coast from Mendocino County to Baja California. As caterpillars, monarchs feed exclusively on the leaves of milkweed (<i>Asclepias</i> sp.) (Nial et al. 2019 and USFWS 2020). Monarch butterfly migration routes pass east over the Sierra Nevada in the fall and back to the California coast in the spring (USFWS 2020). The overwintering population is located along the Coast while summer breeding areas occur in interior California and North America with spring breeding areas located further east (USFWS 2020).</p>	<p>Will not occur. There are no wind protected tree groves or host plants in the Study Area. There are no reported occurrences for monarch butterfly within 10-miles of the Study Area (CDFW 2022).</p>

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<i>Helminthoglypta talmadgei</i> Trinity shoulderband	--/--/CDFW Special Animal	This snail species is known from Trinity and Humboldt Counties, California. The species has a patchy distribution in the Klamath Mountains of northern California. Most observations are along the Trinity River, from Junction City to the Klamath River, plus one site at Orleans on the Klamath River, one on the South Fork of the Trinity River, six in the mountains south of the Trinity River, and a cluster of sites on the South Fork of the Salmon River (Burke et al 1999). The snail is found in limestone rockslides, abandoned mine tailings and coniferous forest leaf litter along shaded streams.	Will not occur. There is no suitable shaded stream, rockslide, mine tailing, or coniferous forest habitat in the Study Area. There is a historic occurrence of the species in the Study Area. The occurrence is dated to 1954 and pre-dates construction in the Study Area (CDFW 2022).
Fishes			
<i>Cottus klamathensis polyporus</i> Lower Klamath Marbled Sculpin	--/--/SSC	Found in n the Klamath River drainage from Iron Gate Dam downstream to the mouth of the Trinity River (Moyle 2002). The species appears to prefer areas with summer temperatures of 15-20°C, in coarse substrates (cobble and gravel) where water velocities ranged from slow to swift, in streams with widths greater than 20 m (Bond et al. 1988).	Will not occur. There is no suitable aquatic habitat in the Study Area.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<p><i>Entosphenus similis</i> Klamath River Lamprey</p>	<p>--/--/SSC</p>	<p>Klamath River lamprey appear to be non-migratory and are resident in both rivers and lakes of the Klamath basin. Klamath River lamprey are thought to need cold, clear water (Moyle 2002) for spawning and incubation. Adults typically use spawning gravel to build nests, while ammocoetes burrow in soft sediments for rearing (Kostow 2002). Ammocoetes also need larger substrates as they grow and algae for food in habitats with slow or moderately slow water velocities.</p>	<p>Will not occur. There is no suitable aquatic habitat in the Study Area.</p>
<p><i>Oncorhynchus tshawytscha</i> Coast Cutthroat Trout</p>	<p>--/--/SSC</p>	<p>Coastal cutthroat trout usually inhabit and spawn in small to moderately large, clear, well-oxygenated, shallow rivers with gravel bottoms. The native range of the coastal cutthroat trout extends south from the southern coastline of the Kenai Peninsula in Alaska to the Eel River in Northern California. Coastal cutthroat trout are resident in tributary streams and rivers of the Pacific basin and are rarely found more than 100 miles (160 km) from the ocean (Behnke 2002).</p>	<p>Will not occur. There is no suitable aquatic habitat in the Study Area.</p>

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<i>Oncorhynchus mykiss irideus</i> pop. 36 Summer-Run Steelhead Trout	--/CSE/SSC	Summer-run steelhead are morphologically similar to Northern California coastal winter-run steelhead. Immature adults migrate upstream in spring to holding pools in headwater streams then hold through the summer in deep pools. Adults spawn in fall and survivors migrate back to the ocean while juveniles rear in headwater streams as well as streams lower in the watershed, and smolts migrate out to the ocean during high winter flows. Habitat requirements are similar to those of other steelhead, although over-summering habitats necessitate adequate complex and well-shaded areas with appropriate depth and temperatures. (Nakamoto 1994). For most adult steelhead, temperatures of 23-24 degrees C can be lethal and temporary levels of dissolved oxygen should not exceed 5.0 mg l-1 (Reiser and Bjornn 1979).	Will not occur. There is no suitable aquatic habitat in the Study Area.
<i>Oncorhynchus tshawytscha</i> pop. 30 chinook salmon – upper Klamath and Trinity Rivers ESU	FCE/ST/SSC	This ESU (evolutionary significant unit) of Chinook salmon spawn in rivers and streams with cool, clear, water and suitable cobble and gravel substrate within the upper Klamath and Trinity Rivers.	Will not occur. There is no suitable aquatic habitat in the Study Area.
Amphibians			
<i>Ascaphus truei</i> Pacific Tailed Frog	--/--/SSC	In California this species occurs in coastal California from Mendocino to the Oregon border up to an elevation of nearly 2,000	Will not occur. There is no suitable aquatic habitat in the Study Area.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
		<p>meters (Jennings and Hayes 1994). This species requires cold, clear and permanent water for all life stages including larval development. This species is most commonly found in old growth forests that provide conditions for cold water conditions that this species requires (Jennings and Hayes 1994). This species is active from April through October which is typically when reproduction occurs. Eggs are deposited in strands on the underside of submerged rocks and metamorphosis typically takes 2 to 3 year (Jennings and Hayes 1994).</p>	
<p><i>Plethodon elongatus</i> Del Norte Salamander</p>	<p>--/--/WL</p>	<p>Found along the coast in far northwest California from near Orick, Humboldt County, east to near the Seiad Valley, Sisiyou county and Salyer, Trinity County, and north into southwestern Oregon where they have been found inland along West Cow Creek in Douglas County. The species is terrestrial, strongly associated with moist talus in humid shaded and closed-canopy coastal forests of mixed hardwoods and conifers, but also found in rock rubble of old riverbeds, and under bark and logs on forest floor, usually in rocky areas. Especially attracted to older forests (Stebbins et al. 2012).</p>	<p>Moderate. Due to the proximity of the Study Area to the Klamath River, there is a potential for the Del Norte salamander to disperse or forage in the Study Area. However, as the Study Area is developed, lacks moist forest debris, and is regularly mown, the potential for occurrence is moderate. The nearest reported occurrence is 0.93 miles northwest of the Study Area along Camp Creek (CDFW 2022).</p>

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<i>Rana boylei</i> Foothill Yellow-legged Frog	--/SE/SSC	Foothill yellow-legged frog occurs along the coast ranges from Oregon to Los Angeles and along the western side of the Sierra Nevada. This species uses perennial rocky streams in a wide variety of habitats up to 6,400 feet above msl. This species rarely ventures far from water, is usually found basking in the water, or under surface debris or underground within 165 feet of water. Eggs are laid in clusters attached to gravel or rocks along stream margins in flowing water. Tadpoles typically require up to four months to complete aquatic development. Breeding typically follows winter rainfall and snowmelt, which varies based upon location (Jennings and Hayes 1994).	Will not occur. There is no suitable stream habitat in or adjacent to the Study Area.
<i>Rana cascadae</i> Cascades Frog	--/SCE/SSC	Historically, this species was found in fragmented populations in extreme northern California, from the edge of the northern Sierra Nevada mountains to Mt. Lassen, Mt. Shasta, the Marble Mountains, and the Trinity Alps. It is now missing from an estimated 50 percent of its former range in California, and most of its former southernmost locations, including Mt. Lassen. Inhabits wet mountain areas in open coniferous forests to near timberline, including small streams, small pools in meadows, lakes, bogs, ponds, and marshy areas near streams. Typically found in	Will not occur. The elevation of the Study Area is below the species range.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
		water with no predatory fishes between 2,100 and 8,000 feet in elevation (Stebbins et al. 2012).	
<i>Rhyacotriton variegatus</i> Southern Torrent Salamander	--/--/SSC	Found in shallow, clear, cold, well-shaded streams and riparian areas with rocky bottoms in mature or old-growth forests (Stebbins <i>et al.</i> 2012). Although the species is capable of terrestrial activity, it has a low desiccation tolerance and it not able to withstand high temperatures or low moisture levels (Welsh and Hodgson 2008)	Will not occur. The Study Area does not contain suitable aquatic or old growth habitat.
Reptiles			
<i>Emys marmorata</i> Western Pond Turtle	--/--/SSC	Turtle that inhabits slow-moving water with dense submerged vegetation, abundant basking sites, gently sloping banks, and dry clay or silt soils in nearby uplands. Turtles will lay eggs up to 0.25-mile from water, but typically go no more than 600 feet (Jennings and Hayes 1994).	Will not occur. There is no suitable aquatic habitat in or adjacent to the Study Area.
Birds			
<i>Accipiter gentilis</i> Northern Goshawk	--/--/WL	Nests and forages in mature and old-growth forest stands in a broad range of conifer and coniferous hardwood types, including Pacific Ponderosa, Jeffrey and lodgepole pine, mixed conifer, firs, and pinyon-juniper with relatively dense canopies. May also forage in meadow edges and open sagebrush. Nesting and fledgling period: March 1 – August 15 (Woodbridge and Hargis 2006).	Will not occur. The Study Area does not contain suitable old growth forest habitat.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<i>Bonasa umbellus</i> Ruffed Grouse	--/--/WL	Dense forest with some deciduous trees, in both wet and relatively dry situations from boreal forest. Mixed woodland rich in aspen seems to be particularly well-liked (Crawford 1986).	Will not occur. There is no suitable aspen dominated deciduous woodland habitat in the Study Area.
<i>Brachyramphus marmoratus</i> Marbled Murrelet	FT/SE/--	This species is pelagic, except during nesting season where it will use old-growth, multi-layered canopied forests up to 50 miles inland from the coast. When nesting trees are not present, this species will nest on the ground or amongst rocks. In California, nesting typically occurs in coastal redwood forest or Douglas fir forests (USFWS 1997).	Not expected. There is no suitable old growth canopied forest habitat in the Study Area. The Study Area is located within mapped Critical Habitat but does not provide any of the primary constituent elements of Critical Habitat for this species. The presence of deformities and/or large branches to use as a nesting platform is one of the primary constituent elements (USFWS 2016) for the species. The Study Area does not contain any old-growth forest and majority of the trees on the project site are in good to fair condition, with no deformities noted. Therefore, the site is not considered Critical Habitat, even though it is within an area mapped as Critical Habitat. Due to the presence of Critical Habitat in the project site, this species is discussed in the text.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
<i>Charadrius alexandrinus nivosus</i> Western Snowy Plover	FT/--/SSC	Federal listing applies only to coastal populations that nest on sand beaches above the high tide line. Interior populations nest on barren to sparsely vegetated flats along the shores of lakes, braided river systems, salt ponds, and agricultural sumps. Adults feed on insects and brine shrimp (Shuford and Garaldi 2008).	Will not occur. There is no suitable beach or salt pan habitat in the Study Area. The Study Area lacks suitable unvegetated substrates required by this species for nesting.
<i>Coccyzus americanus</i> Yellow-billed Cuckoo	FT/--/SSC	Yellow-billed cuckoos are found in deciduous forests with gaps and clearings. The species primarily feeds on insects, especially tent caterpillars. In the West, this species is rare and restricted to the cottonwood-dominated forests that line larger rivers running through arid country (Hughes 1999).	Will not occur. There is no suitable cottonwood dominated riparian habitat in or adjacent to the Study Area.
<i>Cypseloides niger</i> Black Swift	--/--/SSC	Nests in moist crevice or cave on sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons. Forages widely over many habitats. In migration, rare and irregular outside the breeding range; does not winter in California (Zeiner et al. 1990).	Will not occur. The Study Area does not contain suitable cliff or canyon habitat to support nesting for this species. There is a historic occurrence of the species in the Study Area. The occurrence is dated to 1982 and pre-dates construction in the Study Area (CDFW 2022).
<i>Falco peregrinus anatum</i> American Peregrine Falcon	FD/SD/FP	Raptor that breeds on steep cliff faces near wetlands. Nests are minimal and may consist of a scrape and are located high on protected ledges or cliffs, including	Will not occur. The Study Area does not contain suitable cliff or ledge habitat to support nesting for this species.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
		manmade structures. Forages on the wing by swooping on flying prey (Zeiner <i>et al.</i> 1990).	
<i>Haliaeetus leucocephalus</i> Bald Eagle	FD/SE/FP	Requires large bodies of water with an abundant fish population. Feeds on fish, carrion, small mammals, and water-fowl. Nests are usually located within a 1-mile radius of water. Nests are most often situated in large trees with a commanding view of the area (Zeiner <i>et al.</i> 1990).	May occur. The Klamath River, located 250 feet south of the Study Area, provides suitable foraging habitat for bald eagle and the species may nest in the Study Area. The nearest extant occurrence is 1.4 miles south of the Study Area along the Klamath River (CNDDDB 2022).
<i>Pandion haliaetus</i> Osprey	--/--/WL	Osprey breed in Northern California from the Cascade Ranges southward to Lake Tahoe, and along the coast south to Marin County. They prey primarily on fish but also predate small mammals, birds, reptiles, and invertebrates. Foraging areas include open, clear waters of rivers, lakes, reservoirs, bays, estuaries, and surf zones. Habitat and nesting requirements include large trees, snags, and dead-topped trees in open forest habitats for cover and nesting (Zeiner <i>et al.</i> 1988-1990).	May occur. The Klamath River, located 250 feet south of the Study Area, provides suitable foraging habitat for osprey and the species may nest in the Study Area. The nearest extant occurrence is 1.6 miles northeast of the Study Area along the Klamath River (CNDDDB 2022).
<i>Strix occidentalis caurina</i> Northern Spotted Owl	FT/--/SSC	Northern spotted owls generally inhabit older forested habitats with very dense canopy cover containing large overstory trees and large standing and fallen dead trees (Stephen <i>et al.</i> 2014). Suitable habitat for California spotted owl consists	Not expected. There is no suitable old growth forest habitat in or adjacent to the site. A northern spotted owl activity center was recorded approximately 0.7 miles north of the Study Area. The

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
		of dense, multilayer, mature forest with greater than 70 percent canopy closure preferred for nesting and greater than 50 percent canopy closure preferred for foraging (Verner et al. 1992). Nests are placed in tree cavities, broken-topped trees, and platforms, such as abandoned raptor or squirrel nests. Adults do not build their own nests (Zeiner et al. 1990).	center was last reported as active in 1995. No activity was recorded at the center during surveys conducted in 2000 (CDFW 2022).
Mammals			
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	--/--/SSC	Widely distributed throughout California except alpine and subalpine habitats. This species eats moths, beetle and other insects which it catches on the wing or by gleaning from vegetation. Typically found near water since it is poor at concentrating its urine. This species uses caves, mines, tunnels, buildings and human made structures for roosting. Maternity roosts are typically in warm sites. Hibernation sites are typically cold, but not freezing. This species is very sensitive to disturbance and may abandon its roost after one visit (Zeiner et al. 1990).	May Occur. The abandoned structures in the Study Area provide potentially suitable habitat for Townsend's big-eared bat. The nearest reported occurrence for the species is 5.8 miles north of the Study Area roosting underneath a bridge near Somes Bar (CDFW 2022).
<i>Martes caurina humboldtensis</i> Pacific Marten; Coastal Distinct Population Segment	FT/SE/SSC	A genetically distinct subspecies of the Pacific marten. Coniferous and mixed conifer forests with more than 40% canopy closure typically from 1,350 – 3,200 m amsl (Zielinski 2014). Requires old growth forests that consist primarily of fir and lodgepole pines with cavities for nesting	Not expected. There is no suitable old growth canopied forest habitat in the project site. The project site is located within proposed Critical Habitat but does not provide any of the primary constituent elements of Critical

Attachment D (cont.) Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name ¹	Status ²	Habit, Ecology and Life History	Potential to Occur ³
		and denning (Zielinski 2014). Will also den under logs in the snow and form snow tunnels. Active year round, and typically avoids open areas with no canopy cover, but will forage in meadows, riparian areas and along streams (Zielinski 2014). Capable of traveling up to 15 miles in a single night while foraging (Zeiner et al. 1990). When traveling, marten typically moves along ridgetops.	Habitat for this species. The presence of cavities to use as a den site is one of the primary constituent elements for the species. The majority of the trees on the project site are in good to fair condition, with no deformities noted. Therefore, the site is not considered Critical Habitat, even though it is within an area proposed as Critical Habitat. Due to the presence of Critical Habitat in the project site, this species is discussed in the text.
<i>Pekania pennanti</i> Fisher	FPT/ST/SSC	This species is found in coniferous and mixed conifer and hardwood forests, typically in mature forest cover. Riparian forests and habitat close to open water such as streams are important. Cavities and branches in trees, snags, stumps, rock piles, and downed timber are used as resting sites, and large diameter live, or dead trees are selected for natal and maternal dens (Zeiner et al. 1990). Fisher is currently found in the northern Cascade and southern Sierra Nevada mountain ranges (north of Shasta County and south of Mariposa County).	Not expected. There is no suitable old growth forest habitat for fisher in the Study Area. In addition, the overall level of urban development in areas adjacent to the Study Area provide a deterrent to use of the project area by this species.

¹ Sensitive species reported in CNDDB or CNPS on the "Rio Linda" USGS quads, or in USFWS lists for the project site.

² Status is as follows: Federal (ESA) listing/State (CESA) listing/other CDFW status or CRPR. F = Federal; S = State of California; E = Endangered; T = Threatened; C = Candidate; FP=Fully Protected; SSC=Species of Special Concern; WL=Watch List.

Attachment D (cont.)

Special-Status Species to Occur in the Study Area

- ³ Status in the Project site is assessed as follows. **Will Not Occur:** Species is either sessile (i.e., plants) or so limited to a particular habitat that it cannot disperse on its own and/or habitat suitable for its establishment and survival does not occur on the project site; **Not Expected:** Species moves freely and might disperse through or across the project site, but suitable habitat for residence or breeding does not occur on the project site, potential for an individual of the species to disperse through or forage in the site cannot be excluded with 100% certainty; **Presumed Absent:** Habitat suitable for residence and breeding occurs on the project site; however, focused surveys conducted for the current project were negative; **May Occur:** Species was not observed on the site and breeding habitat is not present but the species has the potential to utilize the site for dispersal, **High:** Habitat suitable for residence and breeding occurs on the project site and the species has been recorded recently on or near the project site, but was not observed during surveys for the current project; **Present:** The species was observed during biological surveys for the current project and is assumed to occupy the project site or utilize the project site during some portion of its life cycle.

CRPR = California Rare Plant Rank: 1B – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere. Extension codes: .1 – seriously endangered; .2 – moderately endangered.

Attachment D (cont.) Special-Status Species to Occur in the Study Area

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Attachment E

Plant and Wildlife
Species Observed
in the Study Area

Table E-1. Plant Species Observed on the Property

Family	Species Name	Common name	Status ¹
Native			
Cupressaceae	<i>Sequoia sempervirens</i>	Coast redwood	--
Fagaceae	<i>Quercus garryana</i>	Oregon white oak	--
Lamiaceae	<i>Prunella vulgaris</i>	Self-heal	--
Oleaceae	<i>Fraxinus latifolia</i>	Oregon ash	--
Pinaceae	<i>Pseudotsuga menziesii</i>	Douglas fir	--
Non-native			
Apiaceae	<i>Torilis arvensis</i>	Common hedge parsley	Moderate
Apocynaceae	<i>Trachelospermum jasminoides</i>	Star jasmine	--
Araliaceae	<i>Hedera helix</i>	English ivy	High
Asteraceae	<i>Hypochaeris radicata</i>	False dandelion	Moderate
	<i>Leucanthemum vulgare</i>	Ox-eye daisy	Moderate
Berberidaceae	<i>Berberis vulgaris</i>	Common barberry	--
Caryophyllaceae	<i>Polycarpon tetraphyllum</i>	Four-leaved manyseed	--
Cupressaceae	<i>Thuja occidentalis</i>	Eastern white-cedar	--
Ebenaceae	<i>Diospyros kaki</i>	Persimmon	--
Fabaceae	<i>Acacia dealbata</i>	Silver wattle	Moderate
	<i>Robinia pseudoacacia</i>	Black locust	Limited
	<i>Trifolium arvense</i>	Hare's-foot clover	--
	<i>Trifolium repens</i>	White clover	--
	<i>Wisteria sinensis</i>	Chinese wisteria	--
Geraniaceae	<i>Geranium dissectum</i>	Cutleaf geranium	Limited
Lamiaceae	<i>Lavandula spica</i>	Lavender	--
Moraceae	<i>Morus alba</i>	White mulberry	--
Oleaceae	<i>Syringa vulgaris</i>	Common lilac	--
Plantaginaceae	<i>Plantago lanceolata</i>	English plantain	Limited
Poaceae	<i>Agrostis capillaris</i>	Common bent	--
	<i>Avena fatua</i>	Wild oats	Moderate
	<i>Bromus diandrus</i>	Ripgut brome	Moderate
	<i>Bromus hordeaceus</i>	Soft brome	Limited
	<i>Cynodon dactylon</i>	Bermuda grass	Moderate
	<i>Festuca perennis</i>	Italian ryegrass	Moderate
	<i>Elymus caput-medusae</i>	Medusahead grass	High
Polygonaceae	<i>Rumex pulcher</i>	Fiddle dock	--
Primulaceae	<i>Anagallis arvensis</i>	Scarlet pimpernel	--
Rosaceae	<i>Malus domestica</i>	Apple	--
	<i>Prunus lusitanica</i>	Portuguese laurel	--

	<i>Rosa rubiginosa</i>	Ornamental rose	--
	<i>Rubus armeniacus</i>	Himalayan blackberry	High
Rubiaceae	<i>Galium aparine</i>	Catchweed	--
Thymelaeaceae	<i>Daphne alpina</i>	Alpine daphne	--
Ulmaceae	<i>Ulmus americana</i>	American elm	--
Vitaceae	<i>Vitis vinifera</i>	Wild grape	--

¹Status of native species is federal listing/state listing/California Rare Plant Rank; Status for non-native species is California Invasive Species Council invasiveness rating.

Table E-2. Wildlife Species Observed on the Property

Order/Family	Species Name	Common Name	Status ¹
Birds			
Accipitriformes			
Accipitridae	<i>Buteo jamaicensis</i>	red-tailed hawk	--
Cathartiformes			
Cathartidae	<i>Cathartes aura</i>	turkey vulture	--
Columbiformes			
Columbidae	<i>Zenaida macroura</i>	mourning dove	--
Galliformes			
Odontophoridae	<i>Callipepla californica</i>	California quail	--
Passeriformes			
Corvidae	<i>Aphelocoma californica</i>	California scrub jay	--
	<i>Corvus brachyrhynchos</i>	American crow	--
Fringillidae	<i>Haemorhous mexicanus</i>	house finch	--
Icteridae	<i>Molothrus ater</i>	brownheaded cowbird	--
Mimidae	<i>Mimus polyglottos</i>	northern mockingbird	--
Passerelidae	<i>Melospiza melodia</i>	song sparrow	--
	<i>Melospiza crissalis</i>	California towhee	--
Sturnidae	<i>Sturnus vulgaris</i>	European starling	--
Piciformes			
Picidae	<i>Melanerpes formicivorus</i>	acorn woodpecker	--
Mammals			
Carnivora			
Canidae	<i>Canis familiaris</i>	domestic dog	--
Rodentia			
Sciuridae	<i>Sciurus griseus</i>	western grey squirrel	--

¹Status for animal species is ESA/CESA listing or other sensitivity.

Attachment F

Site Photos



Photo 1: View of black locust trees and disused equipment along the gravel driveway. June 27, 2022.



Photo 2: View of coast redwood tree located in the center of the Study Area. June 27, 2022.



Photo 3: View of the abandoned restroom facility and shed. June 27, 2022.



Photo 4: View of mown grass along the eastern boundary of the Study Area. June 27, 2022.



Photo 5: View of the abandoned single-family residence. June 27, 2022.



Photo 6: View of the abandoned fruit trees in the center of the Study Area. June 27, 2022.