APPENDIX B

BIOLOGICAL RESOURCES DOCUMENTATION

Fall River Valley CSD – Two Rivers Park

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United States Department of the Interior

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

In Reply Refer To:
Consultation Code: 08ESMF00-2021-SLI-2527
Event Code: 08ESMF00-2021-E-07312
Project Name: 546-04 Two Rivers Park

August 12, 2021

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

To Whom It May Concern:

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

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

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

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2021-SLI-2527
Event Code: 08ESMF00-2021-E-07312
Project Name: 546-04 Two Rivers Park
Project Type: DEVELOPMENT
Project Description: Park development including improvements to existing trails for ADA compliance, paving existing dirt parking area, installation of new trails and permeable parking area, and construction of bathroom and pavilion.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.998436999999996,-121.43928628409535,14z

Counties: Shasta County, California

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Birds

NAME	STATUS
Northern Spotted Owl *Strix occidentalis caurina*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/1123

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/321

Crustaceans

NAME	STATUS
Shasta Crayfish *Pacifastacus fortis*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/8284

Critical habitats

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

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

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

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

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Project information

NAME

546-04 Two Rivers Park

LOCATION

Shasta County, California

DESCRIPTION

Some(Park development including improvements to existing trails for ADA compliance, paving existing dirt parking area, installation of new trails and permeable parking area, and construction of bathroom and pavilion.)

Local office

Sacramento Fish And Wildlife Office

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

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

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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. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

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

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

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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

Birds

NAME	STATUS

Northern Spotted Owl Strix occidentalis caurina 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

Fishes

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

Crustaceans

NAME	STATUS
Shasta Crayfish Pacifastacus fortis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8284	Endangered

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.

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Migratory birds

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

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

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

Additional information can be found using the following links:

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

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

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

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

Cassin's Finch Carpodacus cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe Aechmophorus clarkii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Franklin's Gull Leucophaeus pipixcan This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Lewis's Woodpecker Melanerpes lewis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Rufous Hummingbird selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

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Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

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

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

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

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

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

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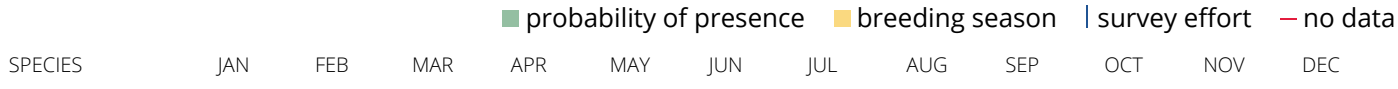
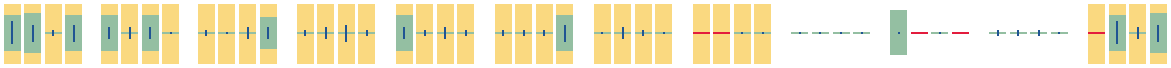
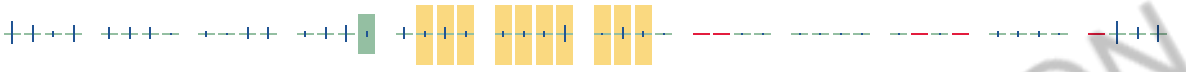


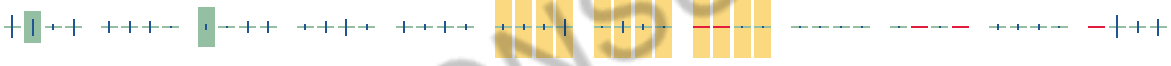
Bald Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



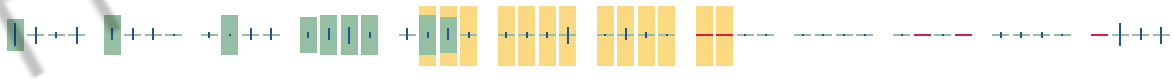
Cassin's Finch BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



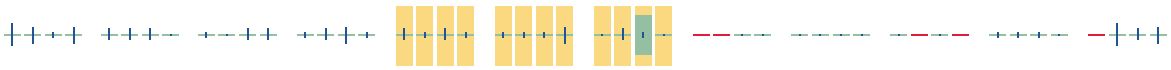
Clark's Grebe BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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



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



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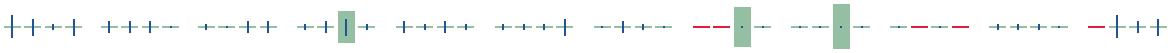
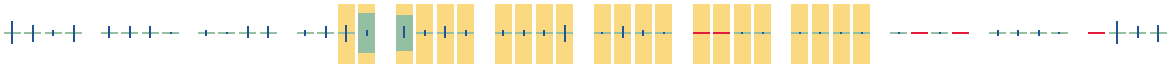
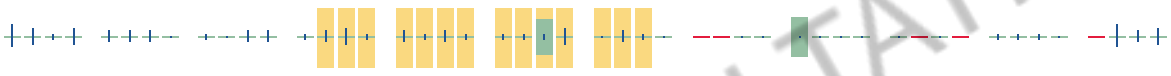
Lesser Yellowlegs BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



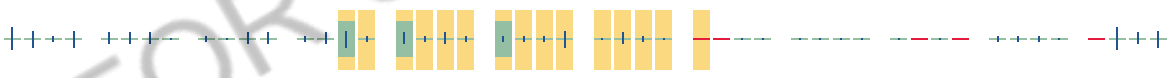
Lewis's Woodpecker BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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



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



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

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

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

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

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

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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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.

NOT FOR CONSULTATION

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.

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

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

PEM1C

FRESHWATER FORESTED/SHRUB WETLAND

PFOC

RIVERINE

R5UBFx

R5UBF

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

Data limitations

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

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

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

Data exclusions

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

Data precautions

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

NOT FOR CONSULTATION

state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

TABLE 1
CNDDB Report Summary

Five-Mile Radius of Project Area
September 2021

Listed Element	Quadrangle [1]					Status [2]
	CA	CM	FRM	HR	PI	
ANIMALS						
American badger			•			SSSC
Bald eagle	•		•	•		FD, SE, SFP
Bank swallow			•			ST
Bigeye marbled sculpin			•			SSSC
California wolverine			•			ST, SFP
Greater sandhill crane			•			ST, SFP
Hardhead			•	•		SSSC
Kneecap lanx	•		•	•		None
Montane peaclam				•		None
Nugget pebblesnail			•	•		None
Oregon snowshoe hare				•		SSC
Oregon spotted frog			•			FT, SSSC
Osprey	•			•		SWL
Prairie falcon		•				SWL
Rough sculpin	•		•			ST, SFP
Scalloped juga	•			•		None
Shasta crayfish	•		•	•		FE, SE
Sucker Springs pyrg	•					None
Townsend's big-eared bat				•		SSSC
Tricolored blackbird			•			ST, SSSC
Western pond turtle	•		•	•		SSSC
Western pearlshell				•		None
Western ridged mussel	•		•	•		None
PLANTS						
Boggs Lake hedge-hyssop		•			•	ST, 1B.2
Marsh skullcap			•			2B.2
Profuse-flowered pogogyne			•			4.2
Tracy's eriastrum				•		SR, 3.2
Tufted loosestrife			•			2B.3
Water star-grass			•			2B.2
Watershield			•			2B.3

Highlighting denotes the quadrangle in which the project site is located

[1]QUADRANGLE CODE

CA – Cassel
CM – Cable Mountain
PI - Pittville
FRM – Fall River Mills
HR – Hogback Ridge

[2]STATUS CODES

Federal

FE	Federally Listed – Endangered
FT	Federally Listed – Threatened
FD	Federally Delisted

State

SFP	State Fully Protected
SR	State Rare
ST	State Threatened
SWL	State Watch List
SWL	State Watch List
SSSC	State Species of Special Concern

Rare Plant Rank

1A Plants Presumed Extinct in California and either Rare or Extinct Elsewhere

1B Plants Rare, Threatened or Endangered in California and Elsewhere

2B Plants Rare, Threatened, or Endangered in California, but Common Elsewhere

3 Plants About Which More Information is Needed *(A Review List)*
(generally not considered special-status, unless unusual circumstances warrant)

4 Plants of Limited Distribution *(A Watch List)*
(generally not considered special-status, unless unusual circumstances warrant)

Rare Plant Threat Ranks

0.2 Fairly Threatened in California

0.3 Not Very Threatened in California

TABLE 2
California Native Plant Society
Inventory of Rare and Endangered Plants

U.S. Geological Survey's Fall River Mills and Hogback Ridge 7.5-minute Quadrangles

September 2021

Common Name	Scientific Name	CA Rare Plant Rank	Blooming Period	State Listing Status	Federal Listing Status
Baker cypress	*Hesperocyparis bakeri*	4.2		None	None
Bristly sedge	*Carex comosa*	2B.1	May-Sept	None	None
Castlegar hawthorne	*Crataegus castlegarensis*	3	May-June (Jul)	None	None
Hairy marsh hedge-nettle	*Stachys pilosa*	2B.3	Jun-Aug	None	None
Lemmon's milk-vetch	*Astragalus lemmonii*	1B.2	May-Aug (Sept)	None	None
Long-leaved starwort	*Stellaria longifolia*	2B.2	May-Aug	None	None
Marsh skullcap	*Scutellaria galericulata*	2B.2	Jun-Sept	None	None
Northern slender pondweed	*Stuckenia filiformis* ssp. *alpina*	2B.2	May-Jul	None	None
Profuse-flowered pogogyne	*Pogogyne floribunda*	4.2	May-Sept (Oct)	None	None
Susanville milk-vetch	*Astragalus inversus*	4.3	May-Sept	None	None
Tehama navarretia	*Navarretia heterandra*	4.3	Apr-June	None	None
Tracy's eriastrum	*Eriastrum tracyi*	3.2	May-Jul	SR	None
Tufted loosestrife	*Lysimachia thyrsiflora*	2B.3	May-Sep	None	None
Water star-grass	*Heteranthera dubia*	2B.2	Jul-Oct	None	None
Watershield	*Brasenia schreberi*	2B.3	Jun-Sept	None	None

STATUS CODES

State

SR State Rare

Rare Plant Rank

1B Plants Rare, Threatened or Endangered in California and Elsewhere
2B Plants Rare, Threatened or Endangered in California, but More Common Elsewhere
3 Plants About Which We Need More Information *(A Review List)*
(generally not considered special-status, unless unusual circumstances warrant)
4 Plants of Limited Distribution *(A Watch List)*
(generally not considered special-status, unless unusual circumstances warrant)

Rare Plant Threat Ranks

0.1 Seriously Threatened in California
0.2 Fairly Threatened in California
0.3 Not Very Threatened in California

Source: *California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). http://www.rareplants.cnps.org. Accessed September 7, 2021.*

TABLE 3

Potential for Special-Status Species to Occur on the Project Site

September 2021

COMMON NAME	SCIENTIFIC NAME	STATUS[1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
PLANTS							
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	ST, 1B.2	Boggs Lake hedge-hyssop occurs in in vernal pools, along reservoir edges, and in mudflats with wet clay soil. This species is reported from 50 to 5,000 feet in elevation. The flowering period is April through July.	No	No	No	Suitable habitat for Boggs Lake hedge-hyssop is not present in the project site; therefore, this species would not be present.
Bristly sedge	*Carex comosa*	2B.1	Bristly sedge occurs in marshes, and swamps, or along lake margins. This species is reported from sea level to 2,100 feet in elevation. The flowering period is May through September.	No	No	No	Suitable habitat for bristly sedge is not present in the project site; therefore, this species would not be present.
Hairy marsh hedge-nettle	*Stachys pilosa*	2B.3	Hairy marsh hedge-nettle occurs in meadows and seeps, and in Great Basin scrub between 3,900 and 5,000 feet in elevation. The flowering period is June through August.	No	No	No	Suitable habitat for hairy marsh hedge-nettle is not present in the project site; therefore, this species would not be present.
Lemmon's milk-vetch	*Astragalus lemmonii*	1B.2	Lemmon's milk-vetch occurs around the edges of lakes, meadows, marshes, swamps, and seeps in Great Basin scrub between 4,200 and 7,200 feet in elevation. The flowering period is May through August.	No	No	No	Suitable habitat for Lemmon's milk-vetch is not present in the project site; therefore, this species would not be present.
Long-leaved starwort	*Stellaria longifolia*	2B.2	Long-leaved starwort occurs in meadows and seeps, as well as riparian woodland. The species is reported between 3,000 and 6,000 feet in elevation. The flowering period is May through August.	No	No	No	Suitable habitat for long-leaved starwort is not present in the project site; therefore, this species would not be present.
Marsh skullcap	*Scutellaria galericulata*	2B.2	Marsh skullcap is a perennial member of the mint family. It occurs in meadows, along streambanks and in other wet places at elevations of 3,000 to 7,000 feet. The flowering period is June through September.	No	No	No	Suitable habitat for marsh skullcap is not present in the project site; therefore, this species would not be present.

TABLE 3

Potential for Special-Status Species to Occur on the Project Site

September 2021

COMMON NAME	SCIENTIFIC NAME	STATUS[1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Northern slender pondweed/ fineleaf pondweed	*Stuckenia filiformis* ssp. *alpina*	2B.2	The northern slender pondweed is a perennial herb that occurs in freshwater-marsh habitats. The species is reported between 900 and 7,100 feet in elevation. The flowering period is May through July.	No	No	No	No suitable habitat for northern slender pondweed is present in the project site; therefore, this species would not be present.
Tracy's eriastrum	*Eriastrum tracyii*	SR, 3.2	Tracy's eriastrum occurs in open areas on shale or alluvium, in open woodland or chaparral habitats. It usually occurs in dry gravelly or loamy soil on flats and benches. The species is reported between 1,200 and 3,300 feet in elevation. The flowering period is primarily in June and July.	Yes	No	POT.	Tracy's eriastrum has been previously reported along Cassel-Fall River Road and elsewhere in the general project vicinity. Potentially suitable habitat for Tracy's eriastrum is present in the undeveloped park site portion of the project study area.
Tufted loosestrife	*Lysimachia thyrsiflora*	2B.3	Tufted loosestrife occurs in meadows and along lakes and streams, between 3,200 and 5,500 feet in elevation in Plumas, Lassen, and eastern Shasta counties. The flowering period is May through August.	No	No	No	No suitable habitat for tufted loosestrife is present in the project site; therefore, this species would not be present.
Water star-grass	*Heteranthera dubia*	2B.2	Water star-grass occurs in marshes and swamps and requires a water PH of 7 or greater. The species is reported between sea level and 5,000 feet in elevation. The flowering period is July through October.	No	No	No	No suitable habitat for water star-grass is present in the project site; therefore, this species would not be present.
Watershield	*Brasenia schreberi*	2B.3	Watershield, a perennial rhizomatous herb, occurs in marshes and swamps. The species is reported between sea level and 7,300 feet in elevation. The flowering period is June through September.	No	No	No	No suitable habitat for watershield is present in the project site; therefore, this species would not be present.

TABLE 3

Potential for Special-Status Species to Occur on the Project Site

September 2021

COMMON NAME	SCIENTIFIC NAME	STATUS[1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
INVERTEBRATES							
Shasta crayfish	*Pacifastacus fortis*	FE	Shasta crayfish inhabit sections of the Pit River, Fall River, Hat Creek, and tributary streams and springs that are characterized by cool, clear water, low gradient, and a substrate consisting of volcanic rubble on sand and/or gravel.	No	No	No	Although the project area is adjacent to the Pit and Fall rivers, neither water feature occurs within the project boundary nor do these stream reaches have the potential to support Shasta crayfish. Therefore, the Shasta crayfish would not be present.
BIRDS							
Bald eagle	*Haliaeetus leucocephalus*	FD, SE, SFP	Bald eagles nest in large, old-growth trees or snags in mixed stands near open bodies of water. Adults tend to use the same breeding areas year after year and often use the same nest, though a breeding area may include one or more alternate nests. Bald eagles do not usually begin nesting if human disturbance is evident. In California, the bald eagle nesting season is from February through July.	No	No	No	Trees along the Pit and Fall rivers provide marginally suitable nesting habitat for bald eagles; however, there is no suitable nesting habitat in the project site and no nests were observed on adjoining lands during the biological field survey. Thus, bald eagles are not expected to nest in or adjacent to the project site.
Bank swallow	*Riparia riparia*	ST	Bank swallows require vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, or the ocean for nesting.	No	No	No	The project area does not contain vertical cliffs essential for bank swallow nesting. Therefore, there is no potential for this species to be present in the project area.

TABLE 3

Potential for Special-Status Species to Occur on the Project Site

September 2021

COMMON NAME	SCIENTIFIC NAME	STATUS[1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Greater sandhill crane	*Antigone canadensis tabida*	ST, SFP	Greater sandhill cranes nest in wetland habitats near grain fields in northeastern California. Nests consist of large mounds of vegetation in shallow water, natural hummocks, or muskrat houses. Shallow islands bordered by tules and cattails are ideal nesting sites.	No	No	No	No wetlands or other suitable habitat for greater sandhill crane is present in the project site. Thus, the species would not be present.
Northern spotted owl	*Strix occidentalis caurina*	FT, SC, SSSC	Northern spotted owls inhabit dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir forests from sea level to approximately 7,600 feet in elevation. Northern spotted owls typically nest in tree cavities, the broken tops of trees, or in snags.	No	No	No	No old-growth forest or potentially suitable nesting trees/snags are present in the project site. Thus, the spotted owl would not nest in the project site.
Tricolored blackbird	*Agelaius tricolor*	ST, SSSC	Tricolored blackbirds are colonial nesters and generally nest near open water. Nesting areas must be large enough to support a minimum colony of about 50 pairs. Tricolored blackbirds generally construct nests in dense cattails or tules, although they can also nest in thickets of willow, blackberry, wild rose and tall herbs. The breeding season is March 15 to August 10.	No	No	No	No suitable habitat for tri-colored blackbird is present in the project site, and no tricolored blackbird nests were observed in nearby riparian thickets. Thus, the tricolored blackbird is not expected to nest in or adjacent to the project site.
AMPHIBIANS							
Oregon spotted frog	*Rana pretiosa*	FT, SSSC	Oregon spotted frogs are typically found in or near a perennial body of water that includes zones of shallow water and abundant emergent or floating aquatic plants, which the frogs use as basking sites and for escape cover. The frog prefers large, warm marshes (approximate minimum size of 9 acres), and is thought to be extirpated from California.	No	No	No	The Oregon spotted frog is presumed extirpated from California with the exception of potential isolated populations in the Warner Mountains in Modoc County. The Oregon spotted frog would thus not be present.

TABLE 3

Potential for Special-Status Species to Occur on the Project Site

September 2021

COMMON NAME	SCIENTIFIC NAME	STATUS[1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
REPTILES							
Western pond turtle	*Emys marmorata*	SSSC	The western pond turtle associates with permanent or nearly permanent water in a variety of habitats. This turtle is typically found in quiet water environments. Pond turtles require basking sites such as partially submerged logs, rocks, or open mud banks, and suitable (sandy banks or grassy open fields) upland habitat for egg-laying. Nesting and courtship occur during spring. Nests are generally constructed within 500 feet of a waterbody, but some nests have been found up to 1,200 feet away. Pond turtles leave aquatic sites in the fall and overwinter in uplands nearby. Pond turtles return to aquatic sites in spring.	No	No	No	No habitat for the western pond turtle is present in the project site, although the species is known to occur in the general project area in the Pit River near the Fall River confluence. Although western pond turtles may be present in the general area, the species would not be present in the project site.
FISH							
Bigeye marbled sculpin	*Cottus klamathensis macrops*	SSSC	Bigeye marbled sculpins generally inhabit large, clear, cold, spring-fed streams in the Pit River and Fall River basins, and are occasionally found in reservoirs. Bigeye marbled sculpins are often found in areas with aquatic vegetation and coarse substrates.	No	No	No	Although the project area is in the vicinity of the Pit and Fall rivers, the nearby river reaches have a low potential to support bigeye marbled sculpin. The rivers are outside the project boundary and will not be affected by project implementation.
Delta smelt	*Hypomesus transpacificus*	FT	Delta smelt primarily inhabit the brackish waters of Sacramento-San Joaquin River Delta. Most spawning occurs in backwater sloughs and channel edgewaters.	No	No	No	The project site is well outside the range for Delta smelt. The Delta smelt would thus not be present.
Hardhead	*Mylopharodon conocephalus*	SSSC	Hardhead inhabit low to mid-elevation streams in the Sacramento River, San Joaquin River, and Russian River watersheds. Hardhead spawn in clear, deep pools, with rock substrate and low water flow.	No	No	No	Although the project area is in the vicinity of the Pit and Fall rivers, which could potentially support hardhead, the rivers are outside the project boundary and will not be affected by project implementation.

TABLE 3

Potential for Special-Status Species to Occur on the Project Site

September 2021

COMMON NAME	SCIENTIFIC NAME	STATUS[1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Rough sculpin	*Cottus asperrimus*	ST, SFP	Rough sculpins are restricted to the Hat Creek and Fall River drainages, as well as the Pit River, from Lake Britton to just downstream of the Pit 1 Powerhouse. Rough sculpins are generally found in large spring-fed streams where water is cool, deep, rapidly flowing, and clear. This sculpin is often found in areas with gravel or sand bottoms and beds of aquatic vegetation. Nests are constructed in a variety of habitats, including riffles, pools, and in the vicinity of springs.	No	No	No	The project site is in the vicinity of the Pit and Fall rivers; however, the nearby river reaches would not support rough sculpin. The rivers are outside the project boundary and will not be affected by project implementation.
MAMMALS							
American badger	*Taxidea taxus*	SSSC	Badgers are most commonly found in dry, open areas in shrub, forest, and herbaceous habitats, with friable soils. Badgers dig burrows in dry, sandy soil, usually in areas with sparse overstory.	No	No	No	The project area has a moderate level of human activity, which minimizes the potential for badgers to be present. Additionally, a field survey did not detect any evidence of the species' presence. Therefore, American badgers are not expected to occur in or adjacent to the project site.
California wolverine	*Gulo gulo*	ST, SFP	Wolverines are dependent on areas in high mountains, near the tree-line, where conditions are cold year-round and snow cover persists well into May. Females use birthing dens that are excavated in snow. Persistent, stable snow greater than 1.5 meters deep appears to be a requirement for birthing dens. Birthing dens may occur on rocky sites, such as north-facing boulder talus or subalpine cirques. Wolverines are very sensitive to human activities and often abandon den sites in response to human disturbance.	No	No	No	Due to environmental conditions and the moderate level of human activity in the project area, the California wolverine is not expected to be present in the project area.

TABLE 3

Potential for Special-Status Species to Occur on the Project Site

September 2021

COMMON NAME	SCIENTIFIC NAME	STATUS[1]	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Oregon snowshoe hare	*Lepus americanus klamathensis*	SSSC	Oregon snowshoe hares inhabit alder and willow thickets and young conifer stands in upper montane coniferous forests and subalpine coniferous forests.	No	No	No	The project site does not contain suitable habitat for Oregon snowshoe hares. Thus, the species would not be present.
Townsend's big-eared bat	*Corynorhinus townsendii*	SSSC	Townsend's big-eared bat is found in a variety of habitats from sea level to upper montane coniferous forest, and may be found in any season. The species is most abundant in mesic habitats. The bat requires caves, mines, tunnels, buildings, or other cave-like human-made structures for roosting. This bat is especially sensitive to disturbance of roosting sites, and a single disturbance event may result in abandonment of the roost site.	No	No	No	There are no caves, buildings, or other suitable structures in the project site to support roosting Townsend's big-eared bat. Thus, the species would not roost on the site.

[1] Status Codes

Federal:

FE	Federally Listed – Endangered
FT	Federally Listed – Threatened
FD	Federal Delisted

State:

SFP	State Fully Protected
SE	State Listed - Endangered
ST	State Listed - Threatened
SC	State Candidate Species
SSSC	State Species of Special Concern

Rare Plant Rank

1A	Plants Presumed Extinct in California
1B	Plants Rare, Threatened or Endangered in California and Elsewhere
2A	Presumed Extirpated in California, but More Common Elsewhere
2B	Rare or Endangered in California, but More Common Elsewhere

Rare Plant Threat Rank

0.1	Seriously Threatened in California
0.2	Fairly Threatened in California
0.3	Not Very Threatened in California