

Threatened & Endangered Species Assessment

NA257017

Lodi, California

June 1, 2025



Nationwide
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June 1, 2025

Lodi Unified School District
880 N. Guild Ave
Lodi, CA 95240

Attn: Ms. Amberly Kidder
E: akidder@lodiUSD.net

RE: Threatened & Endangered Species Assessment
Gantner CEQA – Lodi USD
2801 W Vine Street
Lodi, California

Terracon Project No. **NA257017**

Dear Ms. Kidder:

Terracon Consultants, Inc. (Terracon) is pleased to submit this Biological Evaluation Memorandum for the above-referenced site. The following report details our findings and presents an opinion regarding the potential suitable habitat for special-status species on the site. Please feel free to contact us at 916-246-5094 or at andrea.gonzalez@terracon.com if you have any questions or concerns.

Sincerely,

Terracon

A handwritten signature in black ink that reads "Andrea Gonzalez".

Andrea Gonzalez
Staff Biologist

A handwritten signature in black ink that reads "J. Hunter Watkins".

J. Hunter Watkins
Authorized Project Reviewer

Attachments: Appendix A – Exhibits
 Exhibit 1 – Site Diagram
 Exhibit 2 – Photo Reference Map
 Appendix B – Photo Log
 Appendix C – IPaC Letter Report
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Executive Summary

The proposed project involves the construction of a new elementary school on 2801 W Vine Street in Lodi, CA. The site appears to have been heavily disturbed from historical agricultural use and is surrounded by both agricultural land, residential neighborhoods, and commercial properties. The purpose of this assessment is to summarize findings from desktop resources and a site visit regarding biological resources and their observed presence or potential to be present within the project site.

Terracon's review of readily available species information identified twenty-seven (27) special-status or California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC) or Fully Protected (FP) species that have the potential to be present within the proposed project area. Suitable habitat was observed for two species: Swainson's hawk and white-tailed kite. Additionally, an active nest was observed, and migratory nesting bird habitat was identified within the vicinity of the site. Terracon recommends conducting pre-construction nesting bird surveys within the project site to avoid impacts to potential nesting birds in compliance with Endangered Species Act (ESA) and Migratory Bird Treaty Act (MBTA) if project activities are scheduled to occur within the nesting period of applicable avian species (January 1 through September 20).

1. Introduction

The site consists of a 12-acre tract located at 2801 W Vine Street in Lodi, San Joaquin County, California. The project area is located on disturbed, undeveloped land in a largely agricultural and residential area. The location of the site and adjoining properties are depicted in **Exhibit 1** of **Appendix A**. Terracon performed a biological desktop review on the subject property.

2. Methodology

Terracon reviewed readily available resources to identify potential threatened and endangered species on the project site. A desktop review for United States Fish and Wildlife Service (USFWS) Information, Planning and Conservation (IPaC) service, National Oceanic and Atmospheric Administration (NOAA) Essential Fish Habitat (EFH) mapping service, and the California Natural Diversity Database (CNDDDB). The preliminary data analysis assisted Terracon in identifying potential biological resources on the site, as well as the potential for threatened/endangered species habitat.

3. Summary of Findings

3.1 Special-Status Plants

The records search of IPaC database identified one plant species that is federally threatened and state-listed as endangered, the fleshy owl's-clover (*Castilleja campestris* spp. *succulenta*), with the potential to be present on the project site. The CNDDDB occurrence search additionally identified one other plant species that is both federally and state-listed as endangered: the palmate-bracted bird's beak (*Cordylanthus palmatus*).

3.2 Special-Status Wildlife

The records search of the IPaC database identified three (3) proposed species, six (6) federally listed threatened species, and two (2) federally listed endangered species that have the potential to be present on the site: monarch butterfly (*Danaus plexippus*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), yellow-billed cuckoo (*Coccyzus americanus*), northwestern pond turtle (*Actinemys marmorata*), giant garter snake (*Thamnophis gigas*), California tiger salamander (*Ambystoma californiense*), western spadefoot (*Spea hammondi*), riparian brush rabbit (*Sylvilagus bachmani riparius*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardii*). The CNDDDB occurrence search identified additional federally listed species, as well state and CDFW listed species: Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), least bell's vireo (*Vireo bellii pusillus*), California black rail (*Laterallus jamaicensis coturniculus*), burrowing owl (*Athene cunicularia*), white-tailed kite (*Elanus leucurus*), song sparrow (*Melospiza melodia* pop. 1), yellow warbler (*Setophaga petechia*), foothill yellow-legged frog (*Rana*

boylii pop. 5), crotch's bumble bee (*Bombus crotchii*), green sturgeon (*Acipenser medirostris* pop. 1), delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinchus thaleichthys* pop. 2), steelhead (*Oncorhynchus mykiss irideus* pop. 11), and Sacramento splittail (*Pogonichthys macrolepidotus*) has a likelihood to occur on or near the site. The species and their habitats are summarized in **Table 1.** below.

Table 1.

Special-Status Species Likelihood of Occurrence

Special-Status Species Potentially Occurring within the Study Area					
<i>Common Name</i>	<i>Scientific Name</i>	<i>Status^a</i> <i>Fed/ State</i>	<i>Habitat and Seasonal</i> <i>Distribution in California</i>	<i>Habitat</i> <i>Present/Absent</i>	<i>Likelihood of Occurrence</i> <i>Within the Study Area</i>
Insects					
Monarch Butterfly	<i>Danaus plexippus</i>	PT/--	Found in prairies, meadows, and grasslands. Associated with <i>Asclepias</i> species.	HP	Low: While no <i>Asclepias spp.</i> was observed onsite, the site is located within the migratory pathway of monarch butterfly.
Valley Elderberry Longhorn Beetle	<i>Desmocerus californicus dimorphus</i>	FT/--	Associated with <i>Sambucus</i> species in foothill oak woodlands and riparian areas.	HA	Absent: No <i>Sambucus spp.</i> or related habitat observed onsite. Site is largely cleared of vegetation.
Crotch's Bumble Bee	<i>Bombus crotchii</i>	--/C	Found in grasslands, shrublands, and semi-urban settings. Nesting occurs underground in abandoned rodent burrows or above ground in tufts of grass, old birds' nests, rock piles, or cavities in dead trees. Food plants include but are not limited to <i>Asclepias</i> , <i>Lupinus</i> , <i>Phacelia</i> , <i>Salvia</i> , <i>Clarkia</i> ,	HA	Absent: No suitable habitat or food plants observed in study area. Site is largely cleared of vegetation.

			<i>Eschschlozia, Eriogonum, etc.</i>		
Amphibians					
Western Spadefoot	<i>Spea hammondi</i>	FC/--	Inhabit washes, alkali flats, washes, playas, river floodplains, and alluvial fans. Aestivate in pine-oak woodland, valley and foothill grasslands, and open chaparral. Prefer areas of open vegetation with sandy/gravelly soils.	HA	Absent: No suitable habitat observed in study area.
California Tiger Salamander	<i>Ambystoma californiense</i>	FT/LT	Found in cismontane woodlands, meadows and seeps, riparian woodlands, valley and foothill grasslands, vernal pools, and wetlands at elevations up to 1,500 feet.	HA	Absent: No suitable habitat observed in study area.
Foothill Yellow-legged Frog (south Sierra DPS)	<i>Rana boylei</i> pop. 5	FE/LE	Inhabits foothill and mountain streams up to approximately 5,000 feet in elevation.	HA	Absent: No suitable habitat observed in study area.
Reptiles					
Northwestern Pond Turtle	<i>Actinemys marmorata</i>	PT/SC	Found in marshes, streams, rivers, ponds, and lakes using sparsely vegetated areas for nests and moist, shrubby or forested areas for aestivation.	HA	Absent: No suitable habitat observed in study area.
Giant Garter Snake	<i>Thamnophis giga</i>	FT/LT	Inhabits natural wetlands such as marshes, sloughs, ponds, small lakes, and small streams at elevations	HA	Absent: No suitable habitat observed in study area.

			between sea level and 400 feet.		
Crustaceans					
Vernal Pool Fairy Shrimp	<i>Branchinecta lynchi</i>	FT/--	Inhabits California's Central valley in foothill grasslands, vernal pools, and wetlands.	HA	Absent: No suitable habitat observed in study area.
Vernal Pool Tadpole Shrimp	<i>Lepidurus packardii</i>	FE/--	Found in ephemeral freshwater habitats, including alkaline pools, clay flats, vernal lakes, vernal swales, and other seasonal wetlands.	HA	Absent: No suitable habitat observed in study area.
Birds					
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	FT/--	Found in densely wooded habitat near water, like low, scrubby woodlands, orchards, thickets, and farmland.	HA	Absent: No suitable habitat observed in study area.
Swainson's Hawk	<i>Buteo swainsoni</i>	--/LT	Inhabits plains, dry grassland, agricultural fields, and pastures. Often nest peripheral to riparian systems.	HP	Low: Mature ash trees adjacent to eastern boundary of study area may provide adequate nesting habitat. Openness of study area provides suitable foraging habitat.
Tricolored Blackbird	<i>Agelaius tricolor</i>	--/LT	Found in areas near water, such as marshes, grasslands, and wetlands at elevations up to about 1,500 feet. Foraging occurs in areas consisting of grassland or agricultural pastures.	HA	Absent: No suitable habitat observed in study area.

Least Bell's Vireo	<i>Vireo bellii pusillus</i>	FE/LE	Breeds in riparian woodlands dominated by willow (<i>Salix</i>) and forages in oak woodland, mulefat scrub, mesquite thickets, and chaparral.	HA	Absent: No suitable habitat observed in study area.
California Black Rail	<i>Laterallus jamaicensis coturniculus</i>	--/LT	Inhabits saltwater, freshwater, and brackish marshes. Prefers tidal salt marshes dominated by pickleweed (<i>Salicornia</i>) or bulrush (<i>Scirpus</i> spp.).	HA	Absent: No suitable habitat observed in study area.
Burrowing Owl	<i>Athene cunicularia</i>	--/C	Found in open habitats with sparse vegetation and associated with burrowing species such as grasslands, desert, prairies, and sagebrush steppe. May also be found in rural and urban environments.	HA	Absent: Potentially suitable foraging habitat present within study area, however, no burrows observed within study area; burrowing owls not expected to occur within study area.
White-tailed Kite	<i>Elanus leucurus</i>	--/P	Found in cismontane woodlands, marshes, swamps, riparian woodlands, valley and foothill grasslands, and wetlands. Foraging habitat consists of open fields, wetlands, and agricultural areas.	HP	Low: Mature ash trees adjacent to eastern boundary of study area may provide adequate nesting habitat. Study area and surrounding areas may also provide suitable foraging habitat.
Song Sparrow ("Modesto" population)	<i>Melospiza melodia</i> pop. 1	--/SOC	Found near artificial flowing waters, freshwater marshes, riparian forests, woodlands, and scrub, and Sacramento/San Joaquin flowing and standing waters.	HA	Absent: No suitable habitat observed in study area.

Yellow Warbler	<i>Setophaga petechia</i>	--/SOC	Breeds in thickets and disturbed/regrowing habitats typically along streams and wetlands. Found in foothill woodlands, marshes, dry scrub, all the way up to the mixed-conifer zone (occurs up to 8,500 feet in elevation).	HA	Absent: No suitable habitat observed in study area.
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Mammals

Riparian Brush Rabbit	<i>Sylvilagus bachmani riparius</i>	FE/LE	Inhabits riparian areas dominated by willow (<i>Salix spp.</i>), Pacific blackberry (<i>Rubus vitifolius</i>), California wild rose (<i>Rosa californica</i>), Douglas' coyote brush (<i>Baccharis douglasii</i>), wild grape (<i>Vitis californica</i>), and various species of grasses.	HA	Absent: No suitable habitat observed in study area.
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Flowering Plants

Owl's Fleshy Clover	<i>Castilleja campestris ssp. succulenta</i>	FT/LE	Restricted to vernal pools typically less than 750 meters in elevation.	HA	Absent: No suitable habitat observed in study area.
Palmate-bracted Bird's Beak	<i>Cordylanthus palmatus</i>	FE/LE	Found in seasonally flooded, saline-alkali soils in basins and lowland plains of less than 500 feet in the San Joaquin and Sacramento Valleys.	HA	Absent: No suitable habitat observed in study area.

Fish

Green Sturgeon	<i>Acipenser medirostris</i> pop. 1	FT/--	Inhabits large coastal bays and estuaries. Southern population found in	HA	Absent: No suitable habitat observed in study area.
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(southern DPS)			Sacramento and San Joaquin rivers and Delta.		
Delta Smelt	<i>Hypomesus transpacificus</i>	FT/LE	Typically found in shallow, fresh or brackish backwater sloughs and edgewaters of good water quality for spawning.	HA	Absent: No suitable habitat observed in study area.
Longfin Smelt (San Francisco Bay-Delta DPS)	<i>Spirinchus thaleichthys</i> pop. 2	FE/LT	Inhabits nearshore waters, estuaries, and lower portions of freshwater streams. Found in San Francisco Estuary and the Sacramento/San Joaquin Delta, Humboldt Bay, and estuaries of the Eel and Klamath rivers.	HA	Absent: No suitable habitat observed in study area.
Steelhead (Central Valley DPS)	<i>Oncorhynchus mykiss irideus</i> pop. 11	FT/--	Inhabits the western slopes of the Sierra Nevada in waters draining to the Pacific Ocean.	HA	Absent: No suitable habitat observed in study area.
Sacramento Splittail	<i>Pogonichthys macrolepidotus</i>	--/SOC	Found in aquatic habitats; estuaries, freshwater marshes, and Sacramento/San Joaquin flowing waters.	HA	Absent: No suitable habitat observed in study area.

SOURCES:

- U.S. Fish and Wildlife Service (USFWS), IPaC, February 2025 for Project Area coordinates.
- California Department of Fish and Wildlife (CDFW), CNDDB, February 2025 for Project Area and nine nearest surrounding 7.5 quadrants

a. Status:

Federal

FE Federally listed as Endangered
FT Federally listed as Threatened
FPD Federally Proposed for Delisting

PE Proposed Endangered

S Federally Sensitive

PT Proposed as a Threatened Species
SC National Marine Fisheries Service or U.S. Fish and Wildlife
Service designated Species of Concern. Species of Concern
status does not carry any procedural or substantive
protections under the ESA.

State

LE State-listed as Endangered
LT State-listed as Threatened
PT Proposed as a Threatened Species

PE Proposed Endangered

SC Sensitive – Critical
C Candidate for Listing as Threatened or Endangered

SOC Species of Concern

P Protected

b. Likelihood of occurrence evaluations:

A rating of **"High"** indicates that the species has not been
observed, but sufficient information is available to indicate suitable

habitat, and conditions are present on-site and the species is
expected to occur in the study area.

A rating of **"Moderate"** indicates that it is not known if the
species is present, but suitable habitat exists in the study area.

A rating of **"Low"** indicates that species was not found during
biological surveys conducted to date on the Study area and may
not be expected given the species' known regional distribution or
the quality of habitats located in the study area.

A rating of **"Absent"** indicates that no recorded occurrences or
suitable habitat(s) occur within the study area to support this
species. These species are not discussed further in this document.

3.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) decrees that migratory birds and their parts (including eggs, nests, and feathers) are federally protected. The MBTA is the domestic law that affirms, or implements, the United States commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protect selected species of birds that are common to these countries (i.e., they occur in these countries at some point during their annual life cycle). Certain birds are protected under the MBTA and the Bald and Golden Eagle Protection Act. Activities that result in a take of migratory birds or eagles is prohibited unless permitted and authorized by the USFWS.

The following migratory bird was identified within the vicinities of the project sites on the IPaC report:

Table 2.

Migratory Birds with a Likelihood to Occur

Species Name	Bird of Conservation Concern (BCC)	Breeding Time Frame
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	No	Jan 1 to Aug 31
Belding's Savannah Sparrow (<i>Passerculus sandwichensis beldingi</i>)	Yes	Apr 1 to Aug 15
Black Swift (<i>Cypseloides niger</i>)	Yes	Jun 15 to Sep 10
Bullock's Oriole (<i>Icterus bullockii</i>)	Yes	Mar 21 to Jul 25
California Gull (<i>Larus californicus</i>)	Yes	Mar 1 to Jul 31
Clark's Grebe (<i>Aechmophorus clarkii</i>)	Yes	Jun 1 to Aug 31
Common Yellowthroat (<i>Geothlypis trichas sinuosa</i>)	Yes	May 20 to Jul 31
Lawrence's Goldfinch (<i>Spinus lawrencei</i>)	Yes	Mar 20 to Sep 20

Long-eared owl (<i>asio otus</i>)	Yes	Mar 1 to Jul 15
Northern Harrier (<i>Circus hudsonius</i>)	Yes	Apr 1 to Sep 15
Nuttall's Woodpecker (<i>Dryobates nuttallii</i>)	Yes	Apr 1 to Jul 20
Oak Titmouse (<i>Baeolophus inornatus</i>)	Yes	Mar 15 to Jul 15
Olive-sided Flycatcher (<i>Contopus cooperi</i>)	Yes	May 20 to Aug 31
Santa Barbara Song Sparrow (<i>Melospiza melodia graminea</i>)	Yes	Mar 1 to Sep 5
Tricolored Blackbird (<i>Agelaius tricolor</i>)	Yes	Mar 15 to Aug 10
Western Grebe (<i>aechmophorus occidentalis</i>)	Yes	Jun 1 to Aug 31
Wrentit (<i>Chamaea fasciata</i>)	Yes	Mar 15 to Aug 10
Yellow-billed Magpie (<i>Pica nuttalli</i>)	Yes	Apr 1 to Jul 31

Based on a review of readily available documentation for the site including the IPaC report, CNDDDB data, and aerial imagery, there are trees on and within the immediate vicinity of the project site that may provide suitable nesting habitat for the above-mentioned migratory birds of concern.

4. Results

The proposed project area consists of a vacant tract of disturbed, undeveloped land surrounded by residential neighborhoods to the north and west, a commercial development to the east, and crop lands and vineyards to the south.

A site visit was conducted on June 2, 2025, by Terracon biologist Andrea Gonzalez to document existing site conditions. The site is currently fallow and primarily unvegetated, however, in reviewing historical imagery, the site appears to have been generally vegetated with grassland species recently. Present vegetation was primarily observed along the margins of the site and included yellow star thistle (*Centaurea solstitialis*), shortpod mustard (*Hirschfeldia*), tree of heaven (*Ailanthus altissima*), common stork's-bill (*Erodium cicutarium*), doveweed (*Croton setigerus*), field bindweed (*Convolvulus arvensis*), Himalayan blackberry (*Rubus armeniacus*), prickly Russian thistle (*Salsola tragus*), horseweed (*Erigeron*

canadensis), telegraph weed (*Heterotheca grandiflora*), oleander (*Nerium oleander*), ash tree (*Fraxinus sp.*), and brome grass (*Bromus sp.*).

Wildlife species observed within the project site include California scrub jay (*Aphelocoma californica*), lesser goldfinch (*Spinus psaltria*), cliff swallow (*Petrochelidon pyrrhonota*), European starling (*Sturnus vulgaris*), red-tailed hawk (*Buteo jamaicensis*), western kingbird (*Tyrannus verticalis*), northern mockingbird (*Mimus polyglottos*), red-shouldered hawk (*Buteo lineatus*), killdeer (*Charadrius vociferus*), house finch (*Haemorhous mexicanus*), and western fence lizard (*Sceloporus occidentalis*).

An active nest belonging to a western kingbird (*Tyrannus verticalis*) pair was observed in a mature ash tree in the southeastern corner of the project site. The nest appeared to be in the nestling phase and will likely become inactive by early to mid-July 2025.

Photographs taken during the site visit are displayed in **Appendix B**.

5. Recommendations

Due to the potential for special-status and migratory bird species to nest or forage within or near the project site, Terracon's resulting recommendation includes conducting pre-construction nesting bird surveys within and adjacent to the project site if construction is scheduled to take place during the nesting bird season of the above-mentioned avian species (January 1 – September 20). Vegetation removal activities scheduled between September 21 and December 31 would not necessitate nesting bird surveys.

6. Conclusions

Terracon's review of readily available species information identified twenty-seven (27) special-status or CDFW SSC or FP species that have the potential to be present within the proposed project area. Suitable habitat was observed for two species, including the Swainson's hawk and white-tailed kite, in addition to migratory birds. Due to the presence of an active nest within the study area, Terracon recommends conducting pre-construction nesting bird surveys within the project site to avoid impacts to potential nesting birds in compliance with ESA and MBTA if project activities are scheduled to occur during the nesting bird season of the above-mentioned avian species (January 1 – September 20).

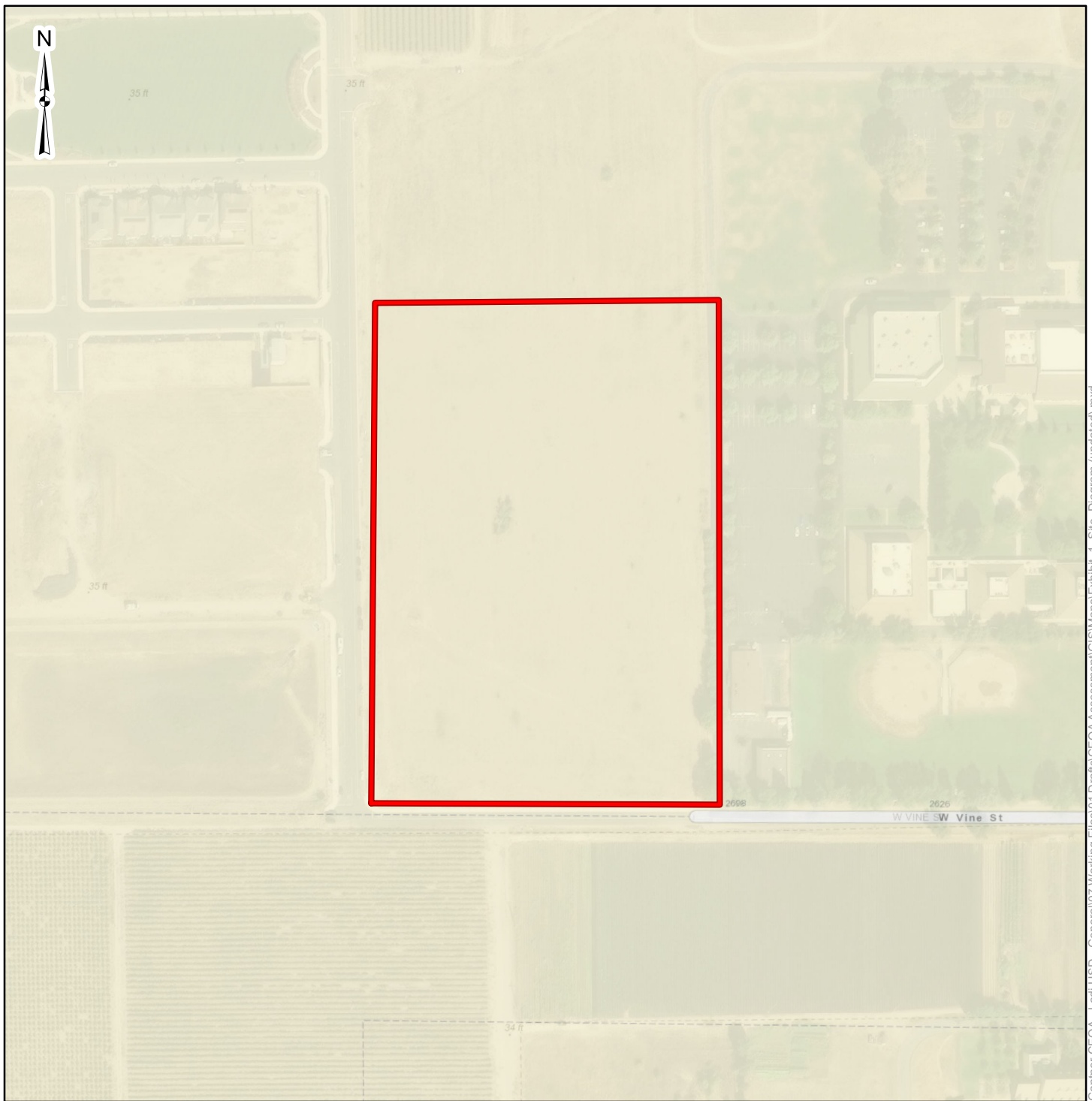
7. Closing

Terracon appreciates the opportunity to submit this report to the Paric Corporation. If you have questions or concerns regarding this assessment, please contact Andrea Gonzalez by phone at 916-246-5094, or via email, at andrea.gonzalez@terracon.com.

Appendix A – Exhibits

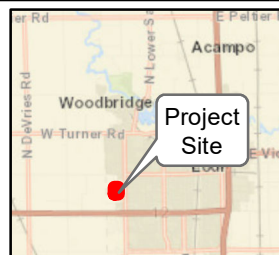
Exhibits 1 – Site Diagram

Exhibits 2 – Photo Reference Map



Legend

Site Boundary



0 125 250 500
Feet

1:3,000 1 inch equals 250 feet

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Project No.:
NA257017

Date:
Jun 2025

Drawn By:
AAG

Reviewed By:
JHW



50 Goldenland Ct, Suite 100 Sacramento, CA 95834

PH. (916) 928-4690

terracon.com

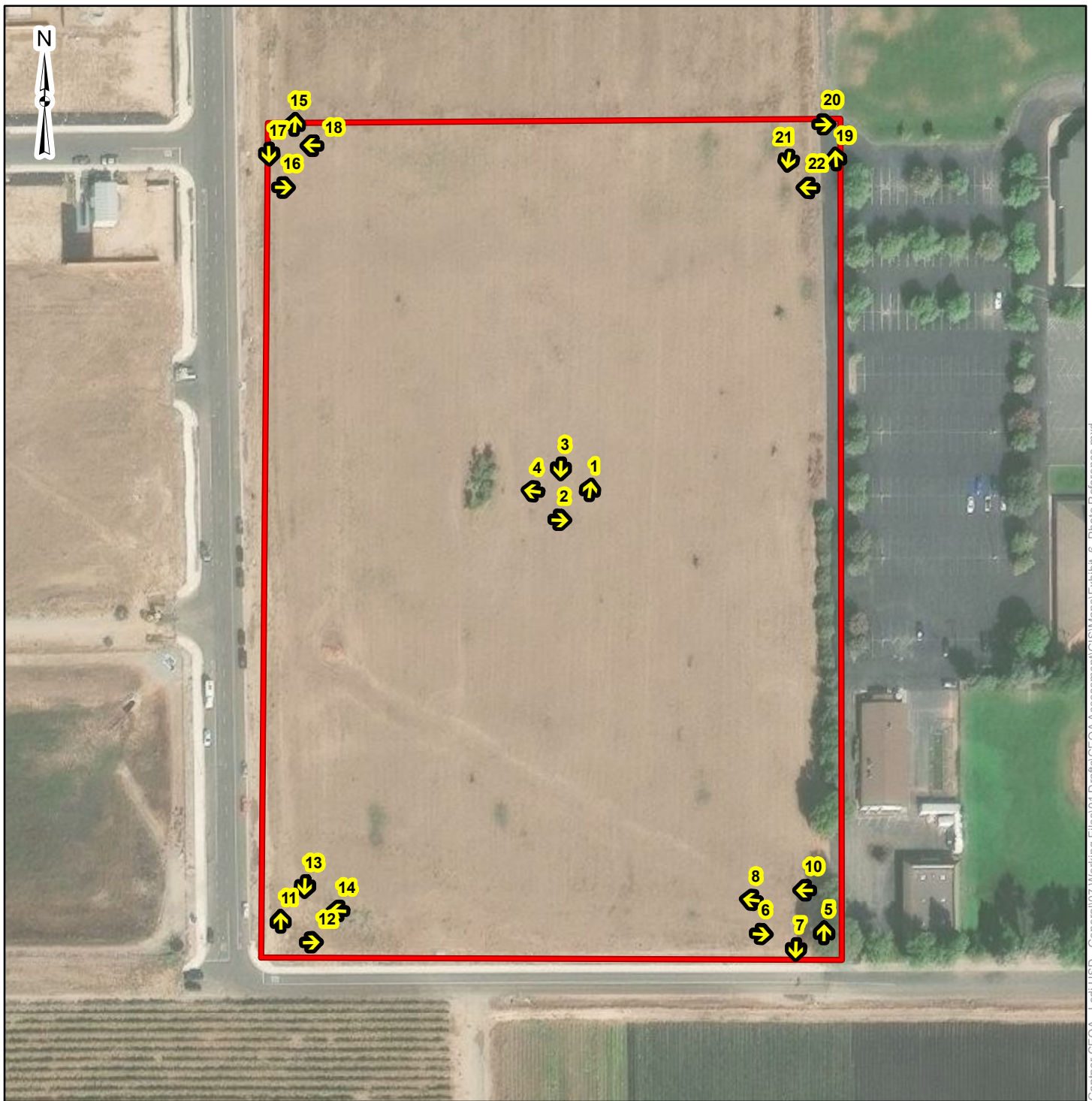
SITE DIAGRAM

Threatened and Endangered Species Assessment

Gantner CEQA - Lodi USD
Lodi, San Joaquin County, CA

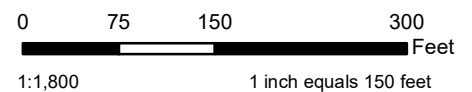
Exhibit

1



Legend

- Site Boundary
- ↑ Site Visit Photos



DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Project No.:
NA257017

Date:
Jun 2025

Drawn By:
AAG

Reviewed By:
JHW



50 Goldenland Ct, Suite 100 Sacramento, CA 95834

PH. (916) 928-4690 terracon.com

PHOTO REFERENCE MAP

Threatened and Endangered Species Assessment

Gantner CEQA - Lodi USD
Lodi, San Joaquin County, CA

Exhibit

2

Appendix B – Photo Log

Photo 1	
Date: 6/2/2025	
Description: Overview of project site standing at center, facing north.	
Photo 2	
Date: 6/2/2025	
Description: Overview of project site standing at center, facing east.	

Photo 3	
Date: 6/2/2025	
Description: Overview of project site standing at center, facing south.	
Photo 4	
Date: 6/2/2025	
Description: Overview of project site and copse of <i>Ailanthus altissima</i> standing at center, facing west.	

Photo 5	
Date: 6/2/2025	
Description: Overview of project site and shelterbelt between site and GracePoint Church. Standing near southeastern corner, facing north.	
Photo 6	
Date: 6/2/2025	
Description: Overview of project site standing near southeastern corner, facing east. Mature ash with active nest pictured.	

Photo 7	
Date: 6/2/2025	
Description: Overview of project site standing near southeastern corner, facing south.	
Photo 8	
Date: 6/2/2025	
Description: Overview of project site standing near southeastern corner, facing west.	

Photo 9	
Date: 6/2/2025	
Description: Active western kingbird nest, circled.	
Photo 10	
Date: 6/2/2025	
Description: Close up of active western kingbird nest.	

Photo 11	
Date: 6/2/2025	
Description: Overview of project site standing near southwestern corner, facing north.	
Photo 12	
Date: 6/2/2025	
Description: Overview of project site standing near southwestern corner, facing east.	

Photo 13	
Date: 6/2/2025	
Description: Overview of project site standing near southwestern corner, facing south.	
Photo 14	
Date: 6/2/2025	
Description: Overview of project site standing near southwestern corner, facing west.	

Photo 15	
Date: 6/2/2025	
Description: Overview of project site standing near northwestern corner, facing north.	
Photo 16	
Date: 6/2/2025	
Description: Overview of project site standing near northwestern corner, facing east.	

Photo 17	
Date: 6/2/2025	
Description: Overview of project site standing near northwestern corner, facing south.	
Photo 18	
Date: 6/2/2025	
Description: Overview of project site standing near northwestern corner, facing west.	

Photo 19	
Date: 6/2/2025	
Description: Overview of project site standing near northeastern corner, facing north.	
Photo 20	
Date: 6/2/2025	
Description: Overview of project site standing near northeastern corner, facing east.	

Photo 21	
Date: 6/2/2025	
Description: Overview of project site standing near northeastern corner, facing south.	
Photo 22	
Date: 6/2/2025	
Description: Overview of project site standing near northeastern corner, facing west.	

Appendix C – IPaC Letter Report

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

San Joaquin County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

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

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](#).

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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:

Mammals

NAME	STATUS
Riparian Brush Rabbit <i>Sylvilagus bachmani riparius</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6189	Endangered

Birds

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

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened
Northwestern Pond Turtle <i>Actinemys marmorata</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Western Spadefoot *Spea hammondi*

Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5425>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

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

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/7850>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Vernal Pool Tadpole Shrimp *Lepidurus packardii*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/2246>

Flowering Plants

NAME

STATUS

Fleshy Owl's-clover *Castilleja campestris* ssp. *succulenta*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/8095>

Critical habitats

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

There are no critical habitats at this location.

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

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

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

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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.	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read

["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

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

Survey Effort (I)

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.

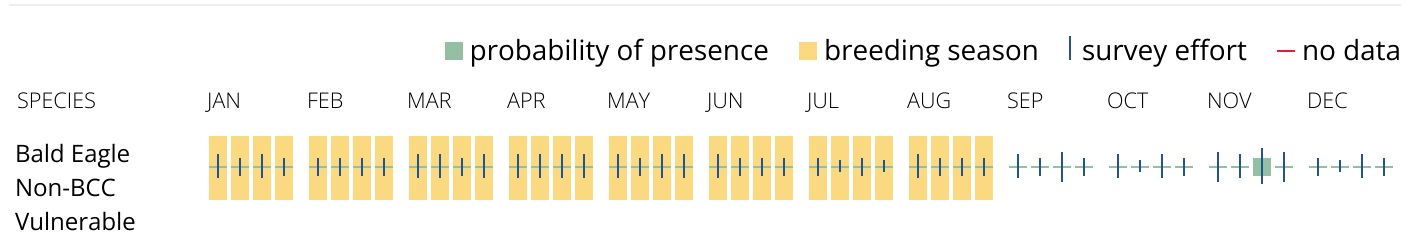
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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 & Golden Eagles FAQs

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

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 line or no data line (red horizontal) 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 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 and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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.

Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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.

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.

Migratory birds

The Migratory Bird Treaty Act (MBTA)¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

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

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>

- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles document](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> 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.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15

Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Bullock's Oriole <i>Icterus bullockii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Common Yellowthroat <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Lawrence's Goldfinch <i>Spinus lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Northern Harrier <i>Circus hudsonius</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8350	Breeds Apr 1 to Sep 15
Nuttall's Woodpecker <i>Dryobates nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20

Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Santa Barbara Song Sparrow <i>Melospiza melodia graminea</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5513	Breeds Mar 1 to Sep 5
Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie <i>Pica nuttalli</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

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

Survey Effort (|)

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

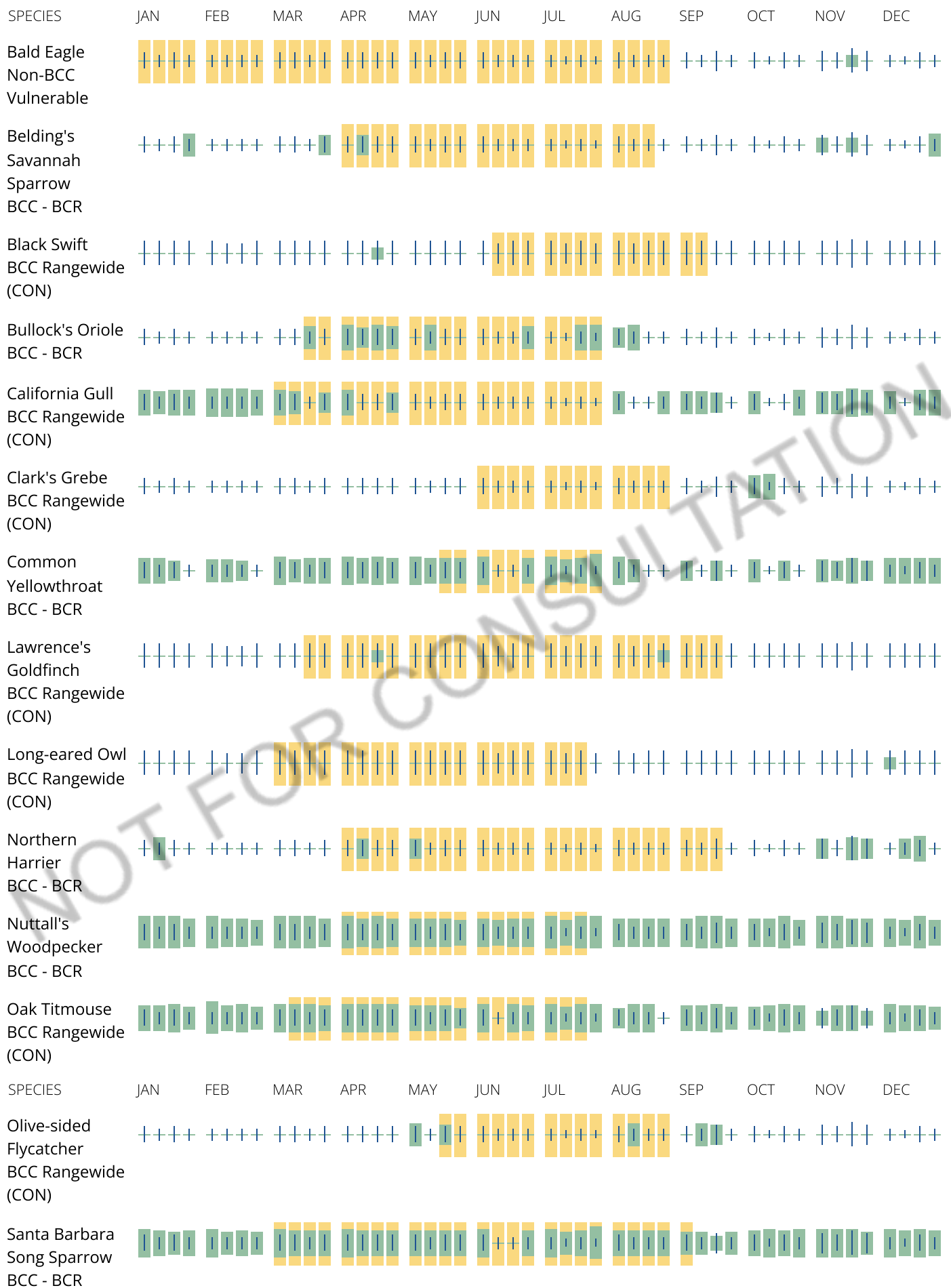
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

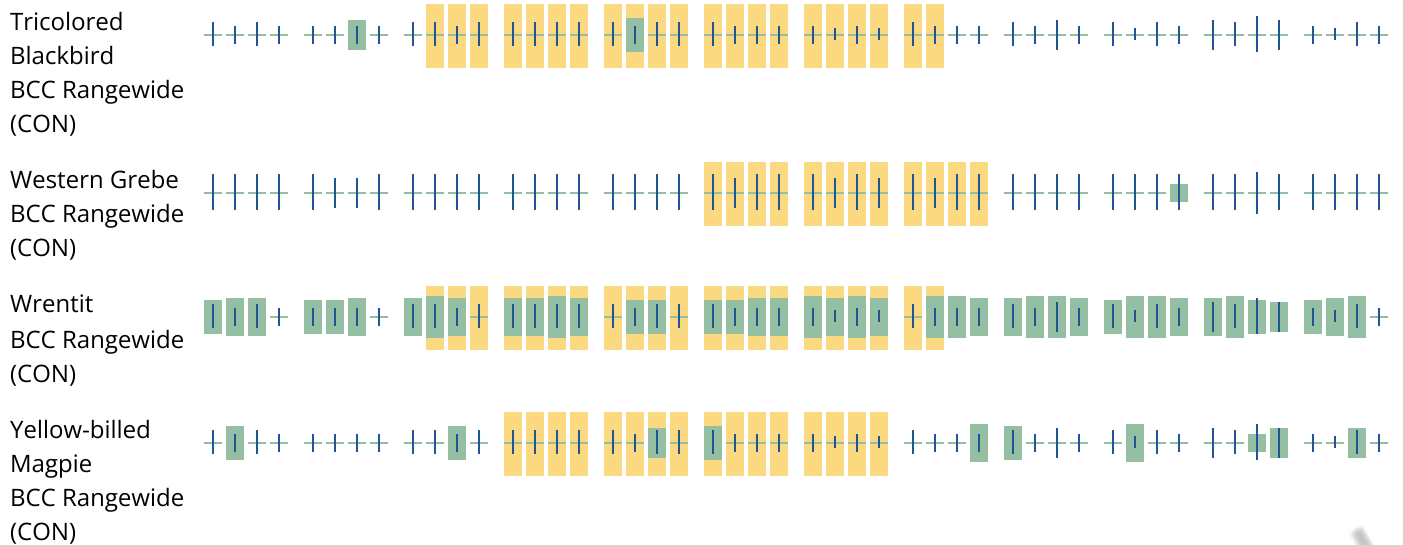
No Data (—)

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

Survey Timeframe

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





Migratory Bird FAQs

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

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

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) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection 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, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

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, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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 [Bald and Golden Eagle Protection 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 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 BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

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.

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 look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 does not represent all birds present in your project area. 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 and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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.

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.

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

This location did not intersect any wetlands mapped by NWI.

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

Data limitations

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

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

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

Data exclusions

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

Appendix D – CNDDDB Query

Query Summary:

Quad **IS** (Thornton (3812124) **OR** Lodi North (3812123) **OR** Lockeford (3812122) **OR** Terminous (3812114) **OR** Lodi South (3812113) **OR** Waterloo (3812112) **OR** Holt (3712184) **OR** Stockton West (3712183) **OR** Stockton East (3712182))

AND Federal Listing Status **IS** (Endangered **OR** Threatened **OR** Proposed Endangered **OR** Proposed Threatened **OR** Candidate) **OR** State Listing Status **IS** (Endangered **OR** Threatened **OR** Rare **OR** Candidate Endangered **OR** Candidate Threatened)

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CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Acipenser medirostris pop. 1	green sturgeon - southern DPS	Fish	AFCOA01031	14	2	Threatened	None	G2T1	S1	null	AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered	Aquatic, Estuary, Marine bay, Sacramento/San Joaquin flowing waters
Actinemys marmorata	northwestern pond turtle	Reptiles	ARAAD02031	1160	17	Proposed Threatened	None	G2	SNR	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	null
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	960	7	None	Threatened	G1G2	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Ambystoma californiense pop. 1	California tiger salamander - central California DPS	Amphibians	AAAAA01181	1329	5	Threatened	Threatened	G2G3T3	S3	null	CDFW_WL-Watch List, IUCN_VU-Vulnerable	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool, Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2058	26	None	Candidate Endangered	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Bombus crotchii	Crotch's bumble bee	Insects	IIHYM24480	483	1	None	Candidate Endangered	G2	S2	null	IUCN_EN-Endangered	null
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	804	2	Threatened	None	G3	S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland, Vernal pool, Wetland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2577	236	None	Threatened	G5	S4	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
Castilleja campestris var. succulenta	succulent owl's-clover	Dicots	PDSCR0D3Z1	99	1	Threatened	Endangered	G4? T2T3	S2S3	1B.2	null	Vernal pool, Wetland

Chloropyron palmatum	palmate- bracted bird's-beak	Dicots	PDSCR0J0J0	25	1	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	Chenopod scrub, Meadow & seep, Valley & foothill grassland, Wetland
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Insects	IICOL48011	271	6	Threatened	None	G3T3	S3	null	null	Riparian scrub
Hypomesus transpacificus	Delta smelt	Fish	AFCHB01040	29	6	Threatened	Endangered	G1	S1	null	AFS_TH- Threatened, IUCN_CR-Critically Endangered	Aquatic, Estuary
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	304	8	None	Threatened	G3T1	S2	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN- Endangered	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Lepidurus packardi	vernal pool tadpole shrimp	Crustaceans	ICBRA10010	336	2	Endangered	None	G3	S3	null	IUCN_EN- Endangered	Valley & foothill grassland, Vernal pool, Wetland
Lilaeopsis masonii	Mason's lilaeopsis	Dicots	PDAP119030	206	20	None	Rare	G2	S2	1B.1	null	Freshwater marsh, Marsh & swamp, Riparian scrub, Wetland
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	Fish	AFCHA0209K	31	3	Threatened	None	G5T2Q	S2	null	AFS_TH- Threatened, CDFW_SSC- Species of Special Concern	Aquatic, Sacramento/San Joaquin flowing waters
Rana boylei pop. 5	foothill yellow- legged frog - south Sierra DPS	Amphibians	AAABH01055	274	1	Endangered	Endangered	G3T2	S2	null	BLM_S-Sensitive, USFS_S-Sensitive	Aquatic, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1443	2	Proposed Threatened	None	G2G3	S3S4	null	BLM_S-Sensitive, CDFW_SSC- Species of Special Concern, IUCN_NT- Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Spirinchus thaleichthys pop. 2	longfin smelt - San Francisco Bay-Delta DPS	Fish	AFCHB03040	35	5	Endangered	Threatened	G5TNRQ	S1	null	IUCN_LC-Least Concern	Aquatic, Estuary, Marine bay, Sacramento/San Joaquin flowing waters
Sylvilagus bachmani riparius	riparian brush rabbit	Mammals	AMAEB01021	20	1	Endangered	Endangered	G5T1	S2	null	null	Riparian forest
Thamnophis gigas	giant gartersnake	Reptiles	ARADB36150	381	8	Threatened	Threatened	G2	S2	null	IUCN_VU- Vulnerable	Marsh & swamp, Riparian scrub, Wetland
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	505	1	Endangered	Endangered	G5T2	S3	null	null	Riparian forest, Riparian scrub, Riparian woodland

Query Summary:

Quad **IS** (Thornton (3812124) **OR** Lodi North (3812123) **OR** Lockeford (3812122) **OR** Terminous (3812114) **OR** Lodi South (3812113) **OR** Waterloo (3812112) **OR** Holt (3712184) **OR** Stockton West (3712183) **OR** Stockton East (3712182))

AND Other Status **CONTAINS** (CDFW_FP-Fully Protected **OR** CDFW_SSC-Species of Special Concern)

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CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Acipenser medirostris pop. 1	green sturgeon - southern DPS	Fish	AFCAA01031	14	2	Threatened	None	G2T1	S1	null	AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered	Aquatic, Estuary, Marine bay, Sacramento/San Joaquin flowing waters
Actinemys marmorata	northwestern pond turtle	Reptiles	ARAAD02031	1160	17	Proposed Threatened	None	G2	SNR	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	null
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	960	7	None	Threatened	G1G2	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2058	26	None	Candidate Endangered	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	190	2	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	304	8	None	Threatened	G3T1	S2	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN-Endangered	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Melospiza melodia pop. 1	song sparrow ("Modesto" population)	Birds	ABPBXA3013	92	34	None	None	G5T3? Q	S3?	null	CDFW_SSC-Species of Special Concern	Artificial flowing waters, Freshwater marsh, Riparian forest, Riparian scrub, Riparian

												woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	Fish	AFCHA0209K	31	3	Threatened	None	G5T2Q	S2	null	AFS_TH- Threatened, CDFW_SSC- Species of Special Concern	Aquatic, Sacramento/San Joaquin flowing waters
Pogonichthys macrolepidotus	Sacramento splittail	Fish	AFCJB34020	15	1	None	None	G3	S3	null	AFS_VU- Vulnerable, CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern	Aquatic, Estuary, Freshwater marsh, Sacramento/San Joaquin flowing waters
Setophaga petechia	yellow warbler	Birds	ABPBX03010	78	1	None	None	G5	S3	null	CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1443	2	Proposed Threatened	None	G2G3	S3S4	null	BLM_S- Sensitive, CDFW_SSC- Species of Special Concern, IUCN_NT- Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland

Appendix E – EFH Mapper Report

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

Query Results

Degrees, Minutes, Seconds: Latitude = 38° 7' 27" N, Longitude = 122° 41' 21" W

Decimal Degrees: Latitude = 38.124, Longitude = -121.311

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

EFH

No additional Essential Fish Habitats (EFH) were identified at the report location.

Pacific Salmon EFH

Link	HUC Name	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
	Upper Mokelumne - Below Camanche	Chinook Salmon	All	Pacific	Pacific Coast Salmon Plan

Atlantic Salmon

No Atlantic Salmon were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.
