

# Appendix C

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## Biological Compendium and Potential to Occur Tables



# 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

Stanislaus 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 species<sup>1</sup> 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<sup>2</sup>).

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
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/2873">https://ecos.fws.gov/ecp/species/2873</a>	Endangered

## Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/8193">https://ecos.fws.gov/ecp/species/8193</a>	Endangered

## Amphibians

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

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Insects

NAME	STATUS
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Monarch Butterfly *Danaus plexippus* Candidate  
Wherever found  
No critical habitat has been designated for this species.  
<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 <i>Branchinecta lynchi</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	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.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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

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

Additional information can be found using the following links:

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

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

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

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

<p><b>Bullock's Oriole</b> <i>Icterus bullockii</i>  This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	<p>Breeds Mar 21 to Jul 25</p>
<p><b>Golden Eagle</b> <i>Aquila chrysaetos</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.  <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	<p>Breeds Jan 1 to Aug 31</p>
<p><b>Nuttall's Woodpecker</b> <i>Picoides nuttallii</i>  This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/9410">https://ecos.fws.gov/ecp/species/9410</a></p>	<p>Breeds Apr 1 to Jul 20</p>
<p><b>Oak Titmouse</b> <i>Baeolophus inornatus</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9656">https://ecos.fws.gov/ecp/species/9656</a></p>	<p>Breeds Mar 15 to Jul 15</p>
<p><b>Tricolored Blackbird</b> <i>Agelaius tricolor</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/3910">https://ecos.fws.gov/ecp/species/3910</a></p>	<p>Breeds Mar 15 to Aug 10</p>
<p><b>Yellow-billed Magpie</b> <i>Pica nuttalli</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9726">https://ecos.fws.gov/ecp/species/9726</a></p>	<p>Breeds Apr 1 to Jul 31</p>

## 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.

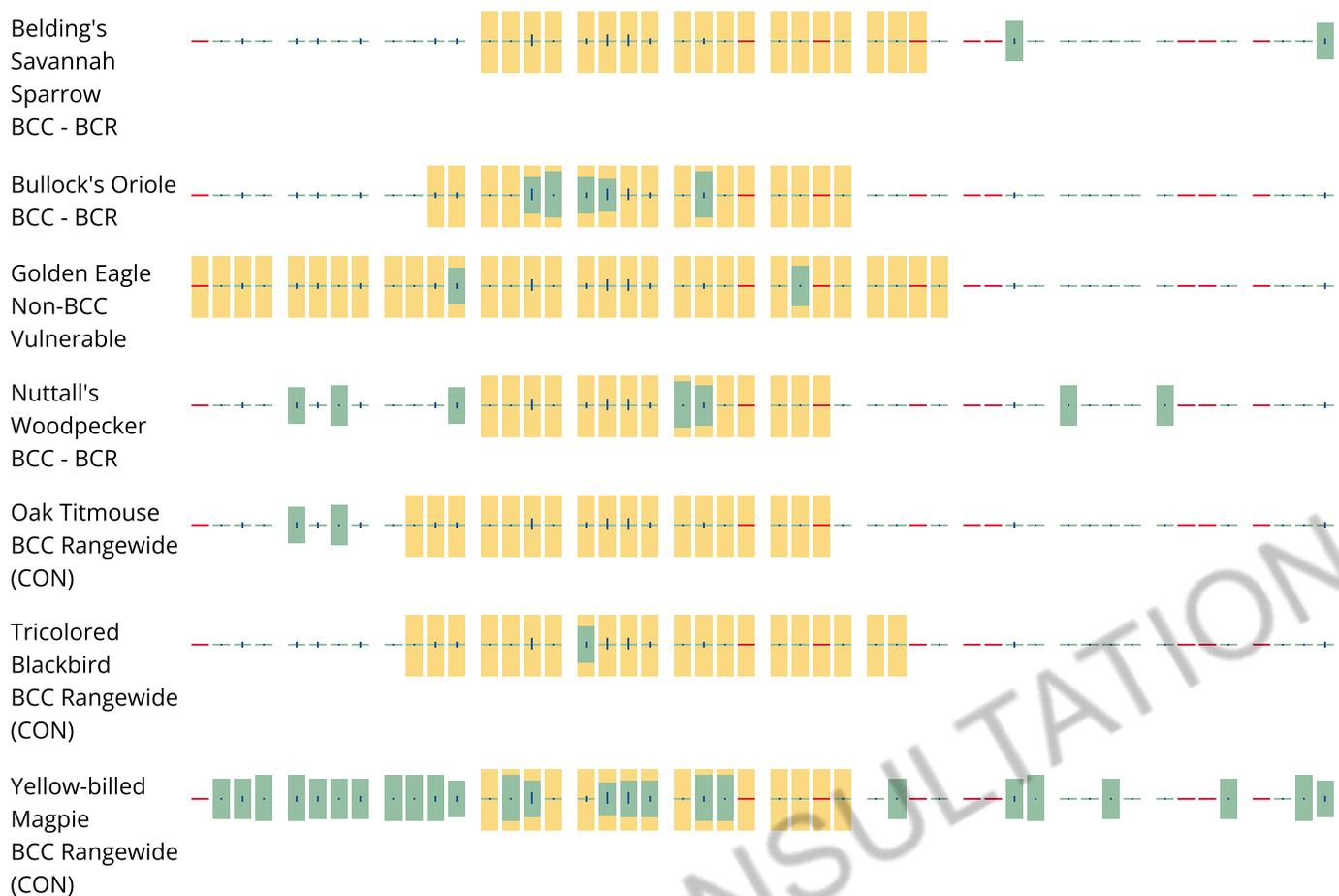
### Survey Timeframe

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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■ probability of presence   ■ breeding season   | survey effort   — no data

SPECIES   JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC



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

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

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

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

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

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

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

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

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go 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 year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

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

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

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

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to

you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

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

### What if I have eagles on my list?

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

### Proper Interpretation and Use of Your Migratory Bird Report

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

## Coastal Barrier Resources System

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

There are no known coastal barriers at this location.

## Data limitations

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

## Data exclusions

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

# Facilities

## National Wildlife Refuge lands

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

There are no refuge lands at this location.

## Fish hatcheries

There are no fish hatcheries at this location.

# Wetlands in the National Wetlands Inventory (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](#).

## Wetland information is not available at this time

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

### Data limitations

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

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

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

### Data exclusions

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

### Data precautions

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



Search Results

34 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3712131:3712141:3712151:3712132:3712142:3712143:3712153:3712152:3712133]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	GENERAL HABITATS	MICRO HABITATS	LOWEST ELEVATION (M)	HIGHEST ELEVATION (M)	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	CA ENDEMIC	DATE ADDED
<a href="#"><u><i>Acanthomintha lanceolata</i></u></a>	Santa Clara thorn-mint	Lamiaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	Chaparral, Cismontane woodland, Coastal scrub	Rocky	80	1200	260	3935	Yes	1974-01-01
<a href="#"><u><i>Acmispon rubriflorus</i></u></a>	red-flowered bird's-foot trefoil	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Cismontane woodland, Valley and foothill grassland		200	425	655	1395	Yes	1974-01-01
<a href="#"><u><i>Astragalus tener</i> var. <i>tener</i></u></a>	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G2T1	S1	1B.2	Playas, Valley and foothill grassland, Vernal pools	Alkaline	1	60	5	195	Yes	1994-01-01
<a href="#"><u><i>Atriplex cordulata</i> var. <i>cordulata</i></u></a>	heartscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G3T2	S2	1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland	Alkaline (sometimes)	0	560	0	1835	Yes	1988-01-01
<a href="#"><u><i>Atriplex minuscula</i></u></a>	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	None	None	G2	S2	1B.1	Chenopod scrub, Playas, Valley and foothill grassland	Alkaline, Sandy	15	200	50	655	Yes	1994-01-01
<a href="#"><u><i>Atriplex persistens</i></u></a>	vernal pool smallscale	Chenopodiaceae	annual herb	Jun-Oct	None	None	G2	S2	1B.2	Vernal pools		10	115	35	375	Yes	2001-01-01
<a href="#"><u><i>Blepharizonia plumosa</i></u></a>	big tarplant	Asteraceae	annual herb	Jul-Oct	None	None	G1G2	S1S2	1B.1	Valley and foothill grassland	Clay (usually)	30	505	100	1655	Yes	1994-01-01
<a href="#"><u><i>Campanula exigua</i></u></a>	chaparral harebell	Campanulaceae	annual herb	May-Jun	None	None	G2	S2	1B.2	Chaparral		275	1250	900	4100	Yes	1974-01-01
<a href="#"><u><i>Caulanthus lemmonii</i></u></a>	Lemmon's jewelflower	Brassicaceae	annual herb	Feb-May	None	None	G3	S3	1B.2	Pinyon and juniper woodland, Valley and foothill grassland		80	1580	260	5185	Yes	2001-01-01
<a href="#"><u><i>Centromadia parryi</i> ssp. <i>rudis</i></u></a>	Parry's rough tarplant	Asteraceae	annual herb	May-Oct	None	None	G3T3	S3	4.2	Valley and foothill grassland, Vernal pools	Alkaline, Roadsides (sometimes), Seeps, Vernal Mesic	0	100	0	330	Yes	2007-05-22
<a href="#"><u><i>Clarkia breweri</i></u></a>	Brewer's clarkia	Onagraceae	annual herb	Apr-Jun	None	None	G4	S4	4.2	Chaparral, Cismontane woodland, Coastal scrub	Serpentinite (often)	215	1115	705	3660	Yes	1974-01-01
<a href="#"><u><i>Collomia diversifolia</i></u></a>	serpentine collomia	Polemoniaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Chaparral, Cismontane woodland	Gravelly (sometimes), Rocky (sometimes), Serpentine (sometimes)	200	600	655	1970	Yes	1974-01-01

<i>Convolvulus simulans</i>	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2	Chaparral, Coastal scrub, Valley and foothill grassland	Clay, Seeps, Serpentinite	30	740	100	2430		1994-01-01
<i>Cryptantha rattanii</i>	Rattan's cryptantha	Boraginaceae	annual herb	Apr-Jul	None	None	G4	S4	4.3	Cismontane woodland, Riparian woodland, Valley and foothill grassland		245	915	805	3000	Yes	1974-01-01
<i>Eriastrum tracyi</i>	Tracy's eriastrum	Polemoniaceae	annual herb	May-Jul	None	CR	G3Q	S3	3.2	Chaparral, Cismontane woodland, Valley and foothill grassland		315	1780	1035	5840	Yes	1974-01-01
<i>Eriophorum gracile</i>	slender cottongrass	Cyperaceae	perennial rhizomatous herb (emergent)	May-Sep	None	None	G5	S4	4.3	Bogs and fens, Meadows and seeps, Upper montane coniferous forest	Acidic	1280	2900	4200	9515		2006-10-31
<i>Eriophyllum jepsonii</i>	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	4.3	Chaparral, Cismontane woodland, Coastal scrub	Serpentinite (sometimes)	200	1025	655	3365	Yes	1974-01-01
<i>Eryngium racemosum</i>	Delta button-celery	Apiaceae	annual/perennial herb	(May)Jun-Oct	None	CE	G1	S1	1B.1	Riparian scrub		3	30	10	100	Yes	1974-01-01
<i>Eryngium spinosepalum</i>	spiny-sepaled button-celery	Apiaceae	annual/perennial herb	Apr-Jun	None	None	G2	S2	1B.2	Valley and foothill grassland, Vernal pools		80	975	260	3200	Yes	1980-01-01
<i>Eschscholzia hypocoides</i>	San Benito poppy	Papaveraceae	annual herb	Mar-Jun	None	None	G4	S4	4.3	Chaparral, Cismontane woodland, Valley and foothill grassland	Clay, Serpentinite	200	1500	655	4920	Yes	1974-01-01
<i>Eschscholzia rhombipetala</i>	diamond-petaled California poppy	Papaveraceae	annual herb	Mar-Apr	None	None	G1	S1	1B.1	Valley and foothill grassland		0	975	0	3200	Yes	1980-01-01
<i>Fritillaria falcata</i>	talus fritillary	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest	Serpentinite, Talus (often)	300	1525	985	5005	Yes	1974-01-01
<i>Galium andrewsii ssp. gatense</i>	phlox-leaf serpentine bedstraw	Rubiaceae	perennial herb	Apr-Jul	None	None	G5T3	S3	4.2	Chaparral, Cismontane woodland, Lower montane coniferous forest	Rocky, Serpentinite	150	1450	490	4755	Yes	1994-01-01
<i>Hesperexax caulescens</i>	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Valley and foothill grassland, Vernal pools	Alkaline (sometimes)	0	505	0	1655	Yes	2001-01-01
<i>Lasthenia chrysantha</i>	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1	Vernal pools	Alkaline	0	200	0	655	Yes	2019-09-30

<i>Lasthenia ferrisiae</i>	Ferris' goldfields	Asteraceae	annual herb	Feb-May	None	None	G3	S3	4.2	Vernal pools		20	700	65	2295	Yes	2001-01-01
<i>Leptosiphon ambiguus</i>	serpentine leptosiphon	Polemoniaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	Cismontane woodland, Coastal scrub, Valley and foothill grassland	Serpentine (usually)	120	1130	395	3710	Yes	1994-01-01
<i>Leptosyne hamiltonii</i>	Mt. Hamilton coreopsis	Asteraceae	annual herb	Mar-May	None	None	G2	S2	1B.2	Cismontane woodland		550	1300	1805	4265	Yes	1974-01-01
<i>Madia radiata</i>	showy golden madia	Asteraceae	annual herb	Mar-May	None	None	G3	S3	1B.1	Cismontane woodland, Valley and foothill grassland		25	1215	80	3985	Yes	1988-01-01
<i>Malacothamnus hallii</i>	Hall's bush-mallow	Malvaceae	perennial deciduous shrub	(Apr)May-Sep(Oct)	None	None	G2	S2	1B.2	Chaparral, Coastal scrub		10	760	35	2495	Yes	1974-01-01
<i>Navarretia nigelliformis</i> ssp. <i>radians</i>	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	None	None	G4T2	S2	1B.2	Cismontane woodland, Valley and foothill grassland, Vernal pools	Clay (sometimes)	65	1000	215	3280	Yes	1994-01-01
<i>Phacelia phacelioides</i>	Mt. Diablo phacelia	Hydrophyllaceae	annual herb	Apr-May	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland	Rocky	500	1370	1640	4495	Yes	1974-01-01
<i>Puccinellia simplex</i>	California alkali grass	Poaceae	annual herb	Mar-May	None	None	G2	S2	1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools	Alkaline, Flats, Lake Margins, Vernal Mesic	2	930	5	3050		2015-10-15
<i>Sphenopholis obtusata</i>	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	None	None	G5	S2	2B.2	Cismontane woodland, Meadows and seeps	Mesic	300	2000	985	6560		1974-01-01

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APPENDIX C  
 BIOLOGICAL COMPENDIUM AND POTENTIAL TO OCCUR TABLES

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/ Blooming Period/ Elevation Range (feet)	Blooming during survey?	Elevation appropriate?	Habitats Appropriate?	Potential to Occur
<i>Acmispon rubriflorus</i>	red-flowered bird's-foot trefoil	None/None/1B.1	Cismontane woodland, Valley and foothill grassland/ annual herb/Apr-June/655-1,390	N	N	Y	Not expected to occur. The site lacks suitable habitat for this species and is outside of the species' known elevation range. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Astragalus tener</i> var. <i>tener</i>	alkali milk-vetch	None/None/1B.2	Playas, Valley and foothill grassland, Vernal pools; Alkaline/annual herb/Mar-June/5-195	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Atriplex cordulata</i> var. <i>cordulata</i>	heartscale	None/None/1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland; Alkaline (sometimes)/annual herb/Apr-Oct/ 0-1,835	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Atriplex minuscula</i>	lesser saltscale	None/None/1B.1	Chenopod scrub, Playas, Valley and foothill grassland; Alkaline, Sandy/annual herb/May-Oct/50-655	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Atriplex persistens</i>	vernal pool smallscale	None/None/1B.2	Vernal pools/annual herb/June-Oct/35-375	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Blepharizonia plumosa</i>	big tarplant	None/None/1B.1	Valley and foothill grassland; Clay (usually)/annual herb/ July-Oct/100-1,655	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. The nearest documented occurrences of this species is approximately 4.9 miles northwest of the site (Occ. No. 37) (CDFW 2022).
<i>Campanula exigua</i>	chaparral harebell	None/None/1B.2	Chaparral/annual herb/May-June/900-4,100	N	N	Y	Not expected to occur. The site lacks suitable habitat for this species and is outside of the species' known elevation range. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Caulanthus lemmonii</i>	Lemmon's jewelflower	None/None/1B.2	Pinyon and juniper woodland, Valley and foothill grassland/ annual herb/Feb-May/260-5,180	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Eryngium racemosum</i>	Delta button-celery	None/SE/1B.1	Riparian scrub/annual/perennial herb/(May)June-Oct/ 10-100	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Eryngium spinosepalum</i>	spiny-sepaed button-celery	None/None/1B.2	Valley and foothill grassland, Vernal pools/annual/ perennial herb/Apr-June/260-3,195	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. The nearest documented occurrence of this species is approximately 3.5 miles southwest of the site (Occ. No. 104) (CDFW 2022).
<i>Eschscholzia rhombipetala</i>	diamond-petaled California poppy	None/None/1B.1	Valley and foothill grassland/annual herb/Mar-Apr/ 0-3,195	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Fritillaria falcata</i>	talus fritillary	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Serpentinite, Talus (often)/ perennial bulbiferous herb/Mar-May/985-5,000	N	N	Y	Not expected to occur. The site lacks suitable habitat for this species and is outside of the species' known elevation range. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Lasthenia chrysantha</i>	alkali-sink goldfields	None/None/1B.1	Vernal pools; Alkaline/annual herb/Feb-Apr/0-655	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Leptosyne hamiltonii</i>	Mt. Hamilton coreopsis	None/None/1B.2	Cismontane woodland/annual herb/Mar-May/ 1,800-4,265	N	N	Y	Not expected to occur. The site lacks suitable habitat for this species and is outside of the species' known elevation range. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Madia radiata</i>	showy golden madia	None/None/1B.1	Cismontane woodland, Valley and foothill grassland/ annual herb/Mar-May/80-3,985	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).

APPENDIX C  
 BIOLOGICAL COMPENDIUM AND POTENTIAL TO OCCUR TABLES

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/Life Form/ Blooming Period/ Elevation Range (feet)	Blooming during survey?	Elevation appropriate?	Habitats Appropriate?	Potential to Occur
<i>Malacothamnus hallii</i>	Hall's bush-mallow	None/None/1B.2	Chaparral, Coastal scrub/perennial deciduous shrub/ (Apr)May-Sep(Oct)/35-2,490	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Navarretia nigelliformis</i> ssp. <i>radians</i>	shining navarretia	None/None/1B.2	Cismontane woodland, Valley and foothill grassland, Vernal pools; Clay (sometimes)/annual herb/(Mar)Apr-July/ 215-3,280	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. The nearest documented occurrence of this species is approximately 3.5 miles southwest of the site (Occ. No. 82) (CDFW 2022).
<i>Phacelia phacelioides</i>	Mt. Diablo phacelia	None/None/1B.2	Chaparral, Cismontane woodland; Rocky/annual herb/ Apr-May/1,640-4,490	N	N	Y	Not expected to occur. The site lacks suitable habitat for this species and is outside of the species' known elevation range. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Puccinellia simplex</i>	California alkali grass	None/None/1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; Alkaline, Flats, Lake Margins, Vernal Mesic/annual herb/Mar-May/5-3,050	N	Y	Y	Not expected to occur. The site lacks suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Sphenopholis obtusata</i>	prairie wedge grass	None/None/2B.2	Cismontane woodland, Meadows and seeps; Mesic/ perennial herb/Apr-July/985-6,560	N	N	Y	Not expected to occur. The site lacks suitable habitat for this species and is outside of the species' known elevation range. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).

	Common Name	Status (Federal/ State)	Habitat	Appropriate habitats?	Potential to Occur
<b>Amphibians</b>					
<i>Ambystoma californiense</i> pop. 1	California tiger salamander - central California DPS	FT/ST, WL	Annual grassland, valley-foothill hardwood, and valley-foothill riparian habitats; vernal pools, other ephemeral pools, and (uncommonly) along stream courses and man-made pools if predatory fishes are absent	N	Not expected to occur. The site does not contain suitable vernal pool or ephemeral pool breeding habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Rana boylei</i> pop. 4	foothill yellow-legged frog - central coast DPS	FPT/SE	Rocky streams and rivers with open banks in forest, chaparral, and woodland	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Rana draytonii</i>	California red-legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Spea hammondi</i>	western spadefoot	None/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley-foothill woodlands, pastures, and other agriculture	N	Not expected to occur. The site does not contain suitable habitat for this species. The nearest documented occurrence of this species is approximately 3 miles southwest of the site (Occ. No. 176) (CDFW 2022).
<b>Birds</b>					
<i>Agelaius tricolor</i> (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Y	Low potential to nest and forage. Although the site does contain a small (100 square meter) patch of cattails, the small area and lack of connectivity of this habitat makes it unlikely that this species would nest or forage on the site. The nearest documented occurrence of this species is approximately 1.5 miles west of the site (Occ. No. 80) (CDFW 2022).
<i>Athene cunicularia</i> (burrow sites and some wintering sites)	burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Y	Moderate potential to nest and forage. The site contains suitable ground squirrel burrows for refuge and nesting, but the high levels of disturbance on site may deter the species from occurring. The nearest documented occurrence of this species is approximately 2.3 miles north of the site (Occ. No. 588) (CDFW 2022).

APPENDIX C  
 BIOLOGICAL COMPENDIUM AND POTENTIAL TO OCCUR TABLES

	Common Name	Status (Federal/ State)	Habitat	Appropriate habitats?	Potential to Occur
<i>Buteo swainsoni</i> (nesting)	Swainson's hawk	None/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Y	Moderate potential to nest and forage. The property across the canal, approximately 300 feet west of the site, contains trees that are suitable for nesting. The site itself lacks suitable nesting substrate and the site and surrounding area lacks grassland, pasture and suitable crops for foraging. The nearest documented occurrence of this species is approximately 4 miles northeast of the site (Occ. No. 481) (CDFW 2022).
<i>Gymnogyps californianus</i>	California condor	FE/FP, SE	Nests in rock formations, deep caves, and occasionally in cavities in giant sequoia trees ( <i>Sequoiadendron giganteus</i> ); forages in relatively open habitats where large animal carcasses can be detected	N	Not expected to nest or forage. The site does not contain suitable nesting habitat or suitable open areas for foraging. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Haliaeetus leucocephalus</i> (nesting & wintering)	bald eagle	FPD/FP, SE	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Y	Not expected to nest and low potential to forage. The site does not contain suitable forested areas for nesting. The adjacent canal provides marginal foraging habitat for the species. There are no documented occurrence of this species within 5 miles of the site (CDFW 2022).
<i>Lanius ludovicianus</i> (nesting)	loggerhead shrike	None/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	N	Low potential to nest and low potential to forage. The site contains low quality habitat for nesting and foraging for the species. The nearest documented occurrence of this species is approximately 3.1 miles northwest of the site (Occ. No. 15) (CDFW 2022).
<i>Melospiza melodia</i> ("Modesto" population)	song sparrow ("Modesto" population)	None/SSC	Nests and forages in emergent freshwater marsh, riparian forest, vegetated irrigation canals and levees, and newly planted valley oak ( <i>Quercus lobata</i> ) restoration sites	N	Low potential to nest and forage. The site contains low quality habitat for nesting and foraging for the species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Vireo bellii pusillus</i> (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	N	Not expected to nest or forage. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<b>Fishes</b>					
<i>Acipenser medirostris</i> pop. 1	green sturgeon - southern DPS	FT/None	Spawns in deep pools in large, turbulent, freshwater rivers; adults live in oceanic waters, bays, and estuaries	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Hesperoleucus symmetricus symmetricus</i>	central California roach	None/SSC	Generally found in small streams of the Sierra Nevada foothills flowing into the Central Valley and are particularly well adapted to life in intermittent watercourses; dense populations are frequently observed in isolated pools.	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Hypomesus transpacificus</i>	Delta smelt	FT/SE	Sacramento–San Joaquin Delta; seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Mylopharodon conocephalus</i>	hardhead	None/SSC	Low- to mid-elevation streams in the Sacramento–San Joaquin drainage; also present in the Russian River	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Oncorhynchus mykiss irideus</i> pop. 11	steelhead - Central Valley DPS	FT/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	N	Not expected to occur. The site does not contain suitable habitat for this species. The nearest documented occurrence of this species is approximately 5 miles east of the site in the San Joaquin River (Occ. No. 25) (CDFW 2022).
<i>Pogonichthys macrolepidotus</i>	Sacramento splittail	None/SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<b>Invertebrates</b>					
<i>Bombus crotchii</i>	Crotch bumble bee	None/None	Open grassland and scrub communities supporting suitable floral resources.	N	Not expected to occur. The site does not contain suitable habitat for this species. The nearest documented occurrence of this species is a historic occurrence approximately 2.3 miles north of the site (Occ. No. 28) (CDFW 2022).

APPENDIX C  
 BIOLOGICAL COMPENDIUM AND POTENTIAL TO OCCUR TABLES

	Common Name	Status (Federal/ State)	Habitat	Appropriate habitats?	Potential to Occur
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Danaus plexippus</i> pop. 1	monarch	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	FT/None	Occurs only in the Central Valley of California, in association with blue elderberry ( <i>Sambucus nigra</i> ssp. <i>caerulea</i> )	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	FE/None	Ephemeral freshwater habitats including alkaline pools, clay flats, vernal lakes, vernal pools, and vernal swales	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<b>Mammals</b>					
<i>Neotoma fuscipes riparia</i>	riparian (=San Joaquin Valley) woodrat	FE/SSC	Dense riparian forest; willow thickets with an oak overstory	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Sylvilagus bachmani riparius</i>	riparian brush rabbit	FE/SE	Dense thickets of wild rose, willows, and blackberries growing along the banks of San Joaquin and Stanislaus Rivers	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Taxidea taxus</i>	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Y	Low potential to occur. The site is heavily disturbed and contains marginal foraging habitat for this species. The nearest documented occurrence of this species is approximately 3 miles southwest of the site (Occ. No. 71) (CNDDDB 2022).
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	FE/ST	Grasslands and scrublands, including those that have been modified; oak woodland, alkali sink scrubland, vernal pool, and alkali meadow	Y	Low potential to occur. The site is heavily disturbed and contains marginal foraging habitat for this species. The nearest documented occurrence of this species is approximately 2.9 miles southwest of the site (Occ. No. 548) (CNDDDB 2022).
<b>Reptiles</b>					
<i>Anniella pulchra</i>	northern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley-foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils	N	Not expected to occur. The site does not contain suitable habitat for this species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Emys marmorata</i>	western pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	N	Low potential to occur. The site does not contain suitable habitat for this species. The adjacent canal may provide marginal habitat for the species. There are no documented occurrences of this species within 5 miles of the site (CDFW 2022).
<i>Masticophis flagellum ruddocki</i>	San Joaquin whipsnake	None/SSC	Open, dry, treeless areas including grassland and saltbush scrub	N	Not expected to occur. The site does not contain suitable habitat for this species. The nearest documented occurrence of this species is approximately 3.3 miles northwest of the site (Occ. No. 23) (CNDDDB 2022).

SciName	ComName	TaxonGroup	ElmCode	TotalOccs	FedList	CalList	GRank	SRank	RPlantRank	OthrStatus	Habitats	GenHab	MicroHab	ReturnOccs
Acmispon rubriflorus	red-flowered bird's-foot trefoil	Dicots	PDFAB2A150	8	None	None	G2	S2	1B.1		Cismontane woodland   Valley & foothill grassland	Valley and foothill grassland, cismontane woodland.	Most recent sighting from sterile, red soils-volcanic mudflow deposits. 195-490 m.	1
Astragalus tener var. tener	alkali milk-vetch	Dicots	PDFAB0F8R1	65	None	None	G2T1	S1	1B.2		Alkali playa   Valley & foothill grassland   Vernal pool   Wetland	Alkali playa, valley and foothill grassland, vernal pools.	Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 0-170 m.	1
Atriplex cordulata var. cordulata	heartscale	Dicots	PDCHE040B0	66	None	None	G3T2	S2	1B.2	BLM_S-Sensitive	Chenopod scrub   Meadow & seep   Valley & foothill grassland	Chenopod scrub, valley and foothill grassland, meadows and seeps.	Alkaline flats and scalds in the Central Valley, sandy soils. 3-275 m.	1
Atriplex minuscula	lesser saltscale	Dicots	PDCHE042M0	52	None	None	G2	S2	1B.1		Alkali playa   Chenopod scrub   Valley & foothill grassland	Chenopod scrub, playas, valley and foothill grassland.	In alkali sink and grassland in sandy, alkaline soils. 0-225 m.	1
Atriplex persistens	vernal pool smallscale	Dicots	PDCHE042P0	41	None	None	G2	S2	1B.2		Vernal pool   Wetland	Vernal pools.	Alkaline vernal pools. 3-115 m.	1
Blepharizonia plumosa	big tarplant	Dicots	PDAST1C011	53	None	None	G1G2	S1S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Valley & foothill grassland	Valley and foothill grassland.	Dry hills and plains in annual grassland. Clay to clay-loam soils; usually on slopes and often in burned areas. 60-505 m.	5
Campanula exigua	chaparral harebell	Dicots	PDCAM020A0	50	None	None	G2	S2	1B.2	BLM_S-Sensitive   SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral   Ultramafic	Chaparral.	Rocky sites, usually on serpentine in chaparral. 90-1375 m.	2
Caulanthus lemmonii	Lemmon's jewelflower	Dicots	PDBRA0M0E0	91	None	None	G3	S3	1B.2	BLM_S-Sensitive   SB_SBBG-Santa Barbara Botanic Garden   USFS_S-Sensitive	Pinon & juniper woodlands   Valley & foothill grassland	Pinyon and juniper woodland, valley and foothill grassland.	75-1585 m.	2
Eriastrum tracyi	Tracy's eriastrum	Dicots	PDPLM030C0	119	None	Rare	G3Q	S3	3.2	USFS_S-Sensitive	Chaparral   Cismontane woodland   Valley & foothill grassland	Chaparral, cismontane woodland, valley and foothill grassland.	Gravelly shale or clay; often in open areas. 315-2400 m.	1

SciName	ComName	TaxonGroup	ElmCode	TotalOccs	FedList	CalList	GRank	SRank	RPlantRank	OthrStatus	Habitats	GenHab	MicroHab	ReturnOccs
Eryngium racemosum	Delta button-celery	Dicots	PDAPI0Z0S0	26	None	Endangered	G1	S1	1B.1		Riparian scrub   Wetland	Riparian scrub.	Seasonally inundated floodplain on clay. 1-335 m.	2
Eryngium spinosepalum	spiny-sepaed button-celery	Dicots	PDAPI0Z0Y0	108	None	None	G2	S2	1B.2	BLM_S-Sensitive	Valley & foothill grassland   Vernal pool   Wetland	Vernal pools, valley and foothill grassland.	Some sites on clay soil of granitic origin; vernal pools, within grassland. 15-1270 m.	2
Eschscholzia rhombipetala	diamond-petaled California poppy	Dicots	PDPAPOA0D0	12	None	None	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden   SB_UCBG-UC Botanical Garden at Berkeley	Valley & foothill grassland	Valley and foothill grassland.	Alkaline, clay slopes and flats. 30-625 m.	1
Fritillaria falcata	talus fritillary	Monocots	PMLILOV070	16	None	None	G2	S2	1B.2	BLM_S-Sensitive   IUCN_EN-Endangered   SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden   SB_SBBG-Santa Barbara Botanic Garden   USFS_S-Sensitive	Chaparral   Cismontane woodland   Lower montane coniferous forest   Ultramafic	Chaparral, cismontane woodland, lower montane coniferous forest.	Mostly on serpentine talus, but occasionally found on granitics. 425-1435 m.	1
Lasthenia chrysantha	alkali-sink goldfields	Dicots	PDAST5L030	55	None	None	G2	S2	1B.1		Vernal pool	Vernal pools.	Alkaline. 0-200 m.	3
Leptosyne hamiltonii	Mt. Hamilton coreopsis	Dicots	PDAST2L0C0	21	None	None	G2	S2	1B.2	BLM_S-Sensitive   SB_UCBG-UC Botanical Garden at Berkeley	Cismontane woodland	Cismontane woodland.	On steep shale talus with open southwestern exposure. 535-1280 m.	2
Madia radiata	showy golden madia	Dicots	PDAST650E0	100	None	None	G3	S3	1B.1	BLM_S-Sensitive   SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden   SB_SBBG-Santa Barbara Botanic Garden	Cismontane woodland   Valley & foothill grassland	Valley and foothill grassland, cismontane woodland.	Mostly on adobe clay in grassland or among shrubs. 75-1220 m.	1

SciName	ComName	TaxonGroup	ElmCode	TotalOccs	FedList	CalList	GRank	SRank	RPlantRank	OthrStatus	Habitats	GenHab	MicroHab	ReturnOccs
Malacothamnus hallii	Hall's bush-mallow	Dicots	PDMAL0Q0F0	46	None	None	G2	S2	1B.2	BLM_S-Sensitive   SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral   Coastal scrub   Ultramafic	Chaparral, coastal scrub.	Some populations on serpentine. 10-735 m.	1
Navarretia nigelliformis ssp. radians	shining navarretia	Dicots	PDPLM0C0J2	102	None	None	G4T2	S2	1B.2	BLM_S-Sensitive	Cismontane woodland   Valley & foothill grassland   Vernal pool   Wetland	Cismontane woodland, valley and foothill grassland, vernal pools.	Apparently in grassland, and not necessarily in vernal pools. 60-975 m.	1
Phacelia phacelioides	Mt. Diablo phacelia	Dicots	PDHYD0C3Q0	16	None	None	G2	S2	1B.2	BLM_S-Sensitive	Chaparral   Cismontane woodland   Ultramafic	Chaparral, cismontane woodland.	Adjacent to trails, on rock outcrops and talus slopes; sometimes on serpentine. 605-1345 m.	1
Puccinellia simplex	California alkali grass	Monocots	PMPOA53110	80	None	None	G2	S2	1B.2	BLM_S-Sensitive	Chenopod scrub   Meadow & seep   Valley & foothill grassland   Vernal pool	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools.	Alkaline, vernal mesic. Sinks, flats, and lake margins. 1-915 m.	2
Sphenopholis obtusata	prairie wedge grass	Monocots	PMPOA5T030	19	None	None	G5	S2	2B.2		Cismontane woodland   Meadow & seep   Wetland	Cismontane woodland, meadows and seeps.	Open moist sites, along rivers and springs, alkaline desert seeps. 15-2625 m.	1

