Appendix C

Biological Resources Database and Records Search Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Roseville (3812173) OR Rocklin (3812172) OR Pilot Hill (3812171) OR Citrus Heights (3812163) OR Folsom (3812162) OR Folsom SE (3812151) OR Clarksville (3812161) OR Carmichael (3812153) OR Buffalo Creek (3812152))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Alkali Meadow Alkali Meadow	CTT45310CA	None	None	G3	S2.1	
Alkali Seep Alkali Seep	CTT45320CA	None	None	G3	S2.1	
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Andrena subapasta An andrenid bee	IIHYM35210	None	None	G1G2	S1S2	
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Banksula californica Alabaster Cave harvestman	ILARA14020	None	None	GH	SH	
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
Carex xerophila chaparral sedge	PMCYP03M60	None	None	G2	S2	1B.2
Ceanothus roderickii Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
Chloropyron molle ssp. hispidum hispid salty bird's-beak	PDSCR0J0D1	None	None	G2T1	S1	1B.1
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Cosumnoperla hypocrena Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S3	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Dumontia oregonensis hairy water flea	ICBRA23010	None	None	G1G3	S1	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Eryngium pinnatisectum Tuolumne button-celery	PDAPI0Z0P0	None	None	G2	S2	1B.2
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Fritillaria agrestis stinkbells	PMLIL0V010	None	None	G3	S3	4.2
Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Juncus leiospermus var. ahartii Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
Juncus leiospermus var. leiospermus Red Bluff dwarf rush	PMJUN011L2	None	None	G2T2	S2	1B.1
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Navarretia myersii ssp. myersii pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Orcuttia tenuis slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
Orcuttia viscida Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Phalacrocorax auritus double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Progne subis purple martin	ABPAU01010	None	None	G5	S3	SSC
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Wyethia reticulata El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 68

Inventory of Rare and Endangered Plants of California

California Native Plant Society

Search Results

31 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3812173:3812172:3812153:3812161:3812162:3812151:3812171:3812152:3812163:**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Allium sanbornii var. *sanbornii*	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	None	None	G4T3T4	S3S4	4.2	No Photo Available
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	 ©1998 Dean Wm. Taylor
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	No Photo Available
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2	No Photo Available
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	FE	CE	G1	S1	1B.1	No Photo Available
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	No Photo Available
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	FE	CR	G1	S1	1B.1	No Photo Available
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	None	None	G3	S3	1B.2	No Photo Available
Chloropyron molle ssp. *hispidum*	hispid salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	None	None	G2T1	S1	1B.1	No Photo Available
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	None	None	G4G5T4	S4	4.2	No Photo Available
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	None	None	G2?Q	S2?	3.2	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2	No Photo Available
Eriophyllum jepsonii	Jepson's woolly	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	4.3	No Photo

	sunflower									Available
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2	No Photo Available
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	FE	CR	G1	S1	1B.2	No Photo Available
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Galium californicum ssp. *sierrae*	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	FE	CR	G5T1	S1	1B.2	No Photo Available
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2	No Photo Available
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May(Jun)	None	None	G3	S3	4.2	No Photo Available
Juncus leiospermus var. *ahartii*	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	No Photo Available
Juncus leiospermus var. *leiospermus*	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	None	None	G2T2	S2	1B.1	No Photo Available
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	No Photo Available
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	No Photo Available
Lilium humboldtii ssp. *humboldtii*	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	None	None	G4T3	S3	4.2	No Photo Available
Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	No Photo Available
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	No Photo Available
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	No Photo Available
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	FT	CR	G2	S2	1B.2	No Photo

										Available
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	No Photo Available
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	No Photo Available

Showing 1 to 31 of 31 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.0). Website https://www.rareplants.cnps.org [accessed 6 October 2021].

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

IPaC resource list

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

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

Location

Sacramento County, California

Local office

Sacramento Fish And Wildlife Office

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

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

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

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

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

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:

Reptiles

NAME	STATUS

Giant Garter Snake Thamnophis gigas — Threatened
Wherever found
No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/4482

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/2891

California Tiger Salamander Ambystoma californiense — Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS

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

Insects

NAME	STATUS

Monarch Butterfly Danaus plexippus — Candidate
Wherever found
No critical habitat has been designated for this species.
http://ecos.fws.gov/ecp/species/9743

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME	STATUS

Conservancy Fairy Shrimp Branchinecta conservatio — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/8246

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME	STATUS

Sacramento Orcutt Grass Orcuttia viscida — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
http://ecos.fws.gov/ecp/species/5507

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[1] and the Bald and Golden Eagle Protection Act[2].

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

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

Additional information can be found using the following links:

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

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

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

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

Cassin's Finch Carpodacus cassinii — Breeds May 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/9462

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
http://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
http://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/9464

Marbled Godwit Limosa fedoa — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/9481

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
http://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/9656

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/3910

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
http://ecos.fws.gov/ecp/species/9726

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.

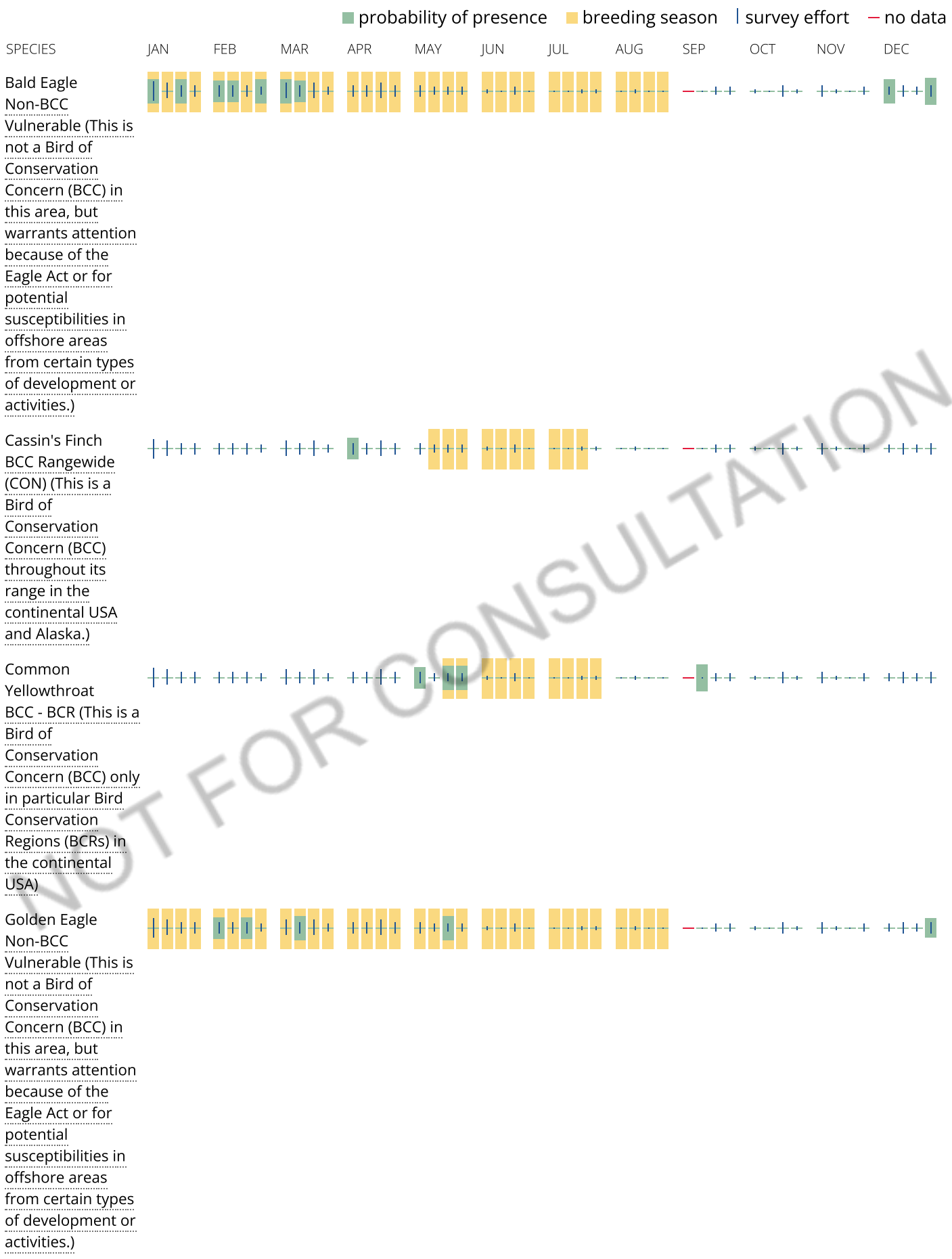
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

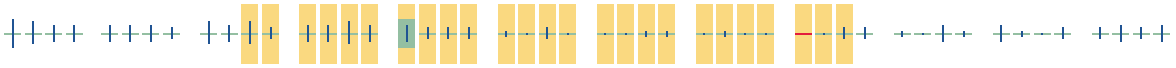
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.

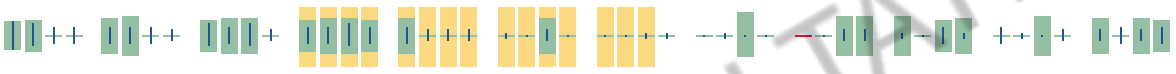


Lawrence's Goldfinch BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



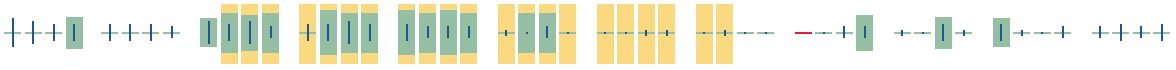
Marbled Godwit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

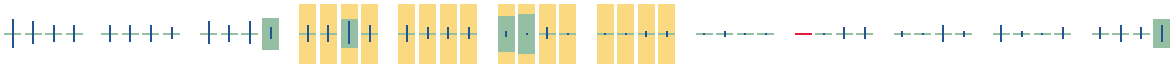


Oak Titmouse BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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



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



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

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

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

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

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

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

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

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

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

Data exclusions

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

Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
Invertebrates				
Bombus occidentalis western bumble bee	--/Candidate CE/--	Bumble bees are primitively eusocial insects that live in underground colonies made up of one queen, female workers, and reproductive members of the colony. New colonies are initiated by solitary queens, generally in the early spring, which typically occupy abandoned rodent burrows (Thorp et al. 1983). This species is a generalist forager and has been reported visiting a wide variety of flowering plants. A short-tongued bumble bee; select food plants include *Melilotus* spp., *Cirsium* spp., *Trifolium* spp., *Centaurea* spp., *Eriogonum* spp., and *Chrysothamnus* spp. (Koch et al. 2012). This species has a short tongue and typically prefers open flowers with short corollas but is known to chew through the base of flowers with long corollas. The flight period for queens in California is from early February to late November, peaking in late June and late September. New queens hibernate over the winter and initiate a new colony the following spring (Thorp et al. 1983). Rare throughout its range and in decline west of the Sierra Nevada crest.	Will not occur	The majority of the select food plants preferred by the species are not present on the project site. In addition, the project site is outside of the current known range of this species. Western bumble bee is not currently known to occur in the project region and is primarily limited to higher elevation populations in the Sierra Nevada. The nearest reported occurrence in the CNDDB is approximately 14.5 miles northeast of the site in Pilot Hill and it is a record from 1976 (CDFW 2021).
Branchinecta conservation conservancy fairy shrimp	FE/--/--	Occupies large clay bottomed vernal pools to vernal lakes with turbid water in grasslands. The historical distribution of this species is unknown and it is currently distributed throughout the Central Valley and southern coastal regions of California (USFWS 2005).	Will not occur	There are no large clay bottomed vernal pools or vernal lakes on the project site.
Branchinecta lynchi vernal pool fairy shrimp	FT/--/--	Vernal pool fairy shrimp is found in vernal pools ranging from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. It is most frequently found in pools measuring less than 0.05 acre, although has been	Will not occur	There is no suitable vernal pool habitat on the project site to support vernal pool fairy shrimp. The small, graded depression located on Lot 6 is used for

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
		collected from vernal pools exceeding 25 acres. The known range within California includes the Central Valley and southern California (USFWS 2005).		stormwater management for the surrounding developed areas including the neighboring parking lot. Because the primary source of water for the graded depression is stormwater runoff from the business park and parking lot, the water quality in the depression would not be expected to be suitable to support vernal pool fairy shrimp as it would be expected to contain petrochemicals and other substances such as herbicides and pesticides from landscaped areas.
Danaus plexippus *monarch butterfly*	Candidate FE/--/--	The federal listing on December 17, 2020, was for overwintering populations of Monarch butterflies that roost in wind protected tree groves along the coast from Mendocino County to Baja California, especially with *Eucalyptus* sp., *Pinus radiata*, *Cupressus* sp., with nectar and water sources nearby. Winter roost sites extend along the coast from Mendocino County to Baja California. As caterpillars, monarchs feed exclusively on the leaves of milkweed (*Asclepias* sp.) (Nial et al. 2019).	Not expected	There are no suitable wind protected tree groves for roosting on the project site. Monarch butterflies could fly through the project site but would not be expected to roost or overwinter in the Project site.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	FT/--/--	Endemic to elderberry shrubs (*Sambucus* spp.) occurring in riparian habitat in the Sacramento and San Joaquin Valleys, riparian habitats in the Sacramento and San Joaquin Valleys, and less common throughout riparian forests of the Central Valley from Redding to Fresno County (USFWS 2014) typically below 152 m amsl (USFWS 2017a).	Will not occur	There are no elderberry shrubs on or immediately adjacent to the project site.

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
Lepidurus packardi vernal pool tadpole shrimp	FE/--/--	The vernal pool tadpole shrimp (VPTS) occurs within the Central Valley of California and in the San Francisco Bay area (USFWS 2005), with the majority of the populations occurring in the Sacramento Valley. This species has also been reported from the Sacramento River Delta to the east side of San Francisco Bay, and from a few scattered localities in the San Joaquin Valley from San Joaquin County to Madera County (Rogers 2001). Suitable habitats vary considerably, including vernal pools, clay flats, alkaline pools, ephemeral stock tanks, roadside ditches, and road ruts (Rogers 2001). Vernal pools may range in size from small, clear, and well-vegetated to highly turbid, alkali scald pools to large winter lakes (Rogers 2001) ranging in size from 54 square feet to 89 acres (USFWS 2005), containing clear- to highly-turbid water. They may be seasonal or ephemeral and may exhibit a wide range of salinity levels. However, VPTS survival requires that water bodies be deeper than 5 inches, pond for 40 days or more, and not experience wide daily temperature fluctuations (Rogers 2001). VPTS cysts (resting eggs) also must have the opportunity to dry out before they can hatch.	Will not occur	There is no suitable habitat for this species on the project site. The graded depression would not be expected to provide adequate water quality or pond water to a sufficient depth or for a sufficient duration to provide habitat for this species.
Fishes				
Hypomesus transpacificus Delta smelt	FT/--/--	Delta smelt spawn in shallow, fresh or slightly brackish water upstream of the mixing zone. Most spawning happens in tidally-influenced backwater sloughs and channel edgewaters. Although spawning has not been observed in the wild, the eggs are thought to attach to substrates such as cattails, tules, tree roots and submerged branches. Delta smelt are found only from the	Will not occur	There is no suitable aquatic habitat for this species on or near the project site.

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
		Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano and Yolo counties (USFWS 1995).		
Oncorhynchus mykiss irideus - Population 11 Central Valley DPS	FT/--/--	Steelhead spawn in rivers and streams with cool, clear, water and suitable silt free substrate (NMFS 2006). This distinct population segment includes all naturally spawned anadromous steelhead populations below natural and manmade impassable barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries, as well as two artificial propagation programs: the Coleman NFH, and Feather River Hatchery steelhead hatchery programs (NMFS 2006).	Will not occur	There is no suitable aquatic habitat for this species on or near the project site.
Amphibians				
Ambystoma californiense California tiger salamander	FT/CT/--	California tiger salamanders are generally restricted to vernal pools and seasonal ponds, including many constructed stock ponds, in grassland and oak savannah plant communities from sea level to about 1,500 feet in central California. This species spends the majority of its life in upland areas in the vicinity of suitable breeding ponds, where it inhabits rodent burrows. In order to provide suitable habitat for this species, suitable breeding habitat must be present in combination with suitable upland habitat. In the Coastal region, populations are scattered from Sonoma County in the northern San Francisco Bay Area to Santa Barbara County, and in the Central Valley and Sierra Nevada foothills from Yolo to Kern counties (USFWS 2017b).	Will not occur	There is no suitable aquatic breeding habitat for this species on or near the project site and the Project site is surrounded by development and busy roadways that would prevent dispersal of this species onto the project site.
Rana boylii foothill yellow-legged frog	--/CE/SSC	The foothill yellow-legged frog occurs along the coast ranges from Oregon to Los Angeles and	Will not occur	There is no suitable aquatic habitat for this species on or near

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
		along the western side of the Sierra Nevada. This species uses perennial rocky streams in a wide variety of habitats up to 6,400 feet above msl. This species rarely ventures far from water, is usually found basking in the water, or under surface debris or underground within 165 feet of water. Eggs are laid in clusters attached to gravel or rocks along stream margins in flowing water. Tadpoles typically require up to four months to complete aquatic development. Breeding typically follows winter rainfall and snowmelt, which varies based upon location (Jennings and Hayes 1994).		the project site.
Rana draytonii California red-legged frog	FT/--/SSC	The California red-legged frog occupies a distinct habitat, combining both specific aquatic and riparian components. The adults require dense, shrubby or emergent riparian vegetation closely associated with deep (greater than 2 1/3-foot deep) still or slow-moving water. The largest densities of California red-legged frogs are associated with deep-water pools with dense stands of overhanging willows (*Salix* spp.) and an intermixed fringe of cattails (*Typha latifolia*). Well-vegetated terrestrial areas within the riparian corridor may provide important sheltering habitat during winter. California red-legged frogs aestivate (enter a dormant state during summer or dry weather) in small mammal burrows and moist leaf litter. They have been found up to 100 feet from water in adjacent dense riparian vegetation. Studies have indicated that this species cannot inhabit water bodies that exceed 70° F, especially if there are no cool, deep portions (USFWS 2002).	Will not occur	There is no suitable aquatic habitat for this species on or near the project site.
Spea hammondii	--/--/SSC	Amphibian that breeds in vernal pools and	Will not occur	There is no suitable aquatic

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
western spadefoot		seasonal ponds or slow portions of streams in grasslands and woodlands. Adults spend most of their time in underground burrows in grasslands surrounding breeding pools (Jennings and Hayes 1994). Breeding is typically finished by the end of March. Tadpoles mature through late-spring and disperse as pools dry (Zeiner et al. 1988-1990).		habitat for this species on or near the project site.
Reptiles				
Emys marmorata western pond turtle	--/--/SSC	Inhabits ponds or slow-moving water with dense submerged vegetation, abundant basking sites, gently sloping banks, and dry clay or silt soils in nearby uplands. Turtles will lay eggs up to 0.25-mile from water, but typically go no more than 600 feet (Jennings and Hayes 1994).	Will not occur	There is no suitable aquatic habitat on or adjacent to the project site.
Thamnophis gigas giant garter snake	FT/CT/--	Endemic to the San Joaquin and Sacramento Valley floors. Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. Requires adequate water during its active season (early spring through mid-fall) to provide food and cover, emergent, herbaceous wetland vegetation for foraging and cover, grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). Inhabits small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing flood elevations when dormant. Primarily found in marshes and sloughs as well as slow-moving creeks but absent from large rivers (USFWS 2017c).	Will not occur	There is no suitable aquatic habitat on or adjacent to the project site.
Birds				
Accipiter cooperii	--/--/WL	Nests in woodlands and urban trees. Preys on	Not expected	The project site does not provide

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
Cooper's hawk		medium-sized birds and small mammals. Forages in open woodland and habitat edges (Zeiner et al. 1990).		suitable woodland nesting or foraging habitat. The project site is surrounded by commercial development and the blue oak woodland habitat is too small to provide adequate foraging or nesting resources.
Agelaius tricolor tricolored blackbird	--/ST/SSC	Common locally throughout central California. Nests and seeks cover in emergent wetland vegetation, specifically cattails and tules, but may also use riparian vegetation. Nesting area must be large enough to support a minimum colony of 50 pairs as they are a highly colonial species. Forages on ground in croplands, grassy fields, flooded land, and edges of ponds (Shuford and Gardali 2008).	Not expected	There is no suitable marsh habitat or nesting substrate on or adjacent to the project site. Large colonies of tricolored blackbirds with thousands of individuals are known to nest in the City of Folsom behind Folsom City College and adjacent to Lifetime Fitness and have been observed by HELIX biologists foraging in the surrounding areas north and south of Highway 50, including in commercial areas. Tricolored blackbird could occasionally forage in or over the Project site but would not nest in or adjacent to the project site.
Ammodramus savannarum grasshopper sparrow	--/--/SSC	A summer resident of foothills and lowlands west of the Cascade-Sierra Nevada crest. Occurs in grasslands with scattered shrubs or other tall structures which it utilizes as singing perches. Nests on the ground in dense grass with overhanging taller grasses and forbs (Zeiner et al. 1990).	Will not occur	Suitable densely vegetated nesting and foraging habitat for this species is not present on the project site or surrounding areas.
Aquila chrysaetos Golden eagle	--/--/FP	Typically occurs in rolling foothills, mountain areas, deserts and other open habitats up to 3,822 m amsl. Typically nests on cliff ledges or large trees in open areas in canyons. Will	Will not occur	The project site does not provide suitable open nesting or foraging habitat.

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
		occasionally use other tall structures for nesting, such as electrical transmission towers. Prey consists mostly of rodents, carrion, birds, reptiles and occasionally small livestock (Zeiner et al. 1990).		
Athene cunicularia burrowing owl	--/--/SSC	Inhabits open habitats including arid grasslands, pastures, disturbed areas, and deserts. Occupies burrows of small mammals, especially California ground squirrel (*Otospermophilus beecheyi*), or artificial burrows such as pipes and culverts. Hunts from low perches, fence posts, and mounds. Breeds from Marsh through August (CDFW 2012).	**May Occur**	Marginal habitat for this species is present on the site. There are several debris piles that provide elements of suitable habitat. No sign of burrowing owl was observed on the project site during the biological reconnaissance survey. There are three recorded occurrences of burrowing owl within 2.5 miles of the project site. These occurrences are generally located to the southeast in annual grassland habitat across Highway 50 (CDFW 2021).
Buteo regalis ferruginous hawk	--/--/WL	Found in arid and semi-arid open grasslands, sagebrush flats, desert scrub, low foothills and areas of pinyon and juniper habitat. Ferruginous hawks' nest in trees, large shrubs, utility poles and occasionally on the ground near river cut banks. Preys upon ground squirrels, rabbits, mice, and gophers. (Dechant et al. 1999).	Will not occur	Suitable open nesting and foraging habitat for this species is not present on the project site or surrounding areas.
Buteo swainsoni Swainson's hawk	--/ST/--	Swainson's hawk breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley and forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. Swainson's hawks breed in California and winter in Mexico and South America. Swainson's hawks usually arrive in the Central Valley between March 1 and April	Not expected	Suitable nesting habitat for this species is not present on or adjacent to the project site north of Highway 50. The site is small and surrounded by urban development. Additionally, Swainson's hawk would not be expected to forage on the project

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
		1 and migrate south between September and October. Swainson's hawks usually nest in trees adjacent to suitable foraging habitat. Swainson's hawk nests are usually located in trees near the edges of riparian stands, in lone trees or groves of trees in agricultural fields, and in mature roadside trees. Valley oak, Fremont cottonwood, walnut, and large willow with an average height of about 58 feet, and ranging from 41 to 82 feet, are the most commonly used nest trees in the Central Valley. Suitable foraging areas for Swainson's hawk include native grasslands or lightly grazed pastures, alfalfa and other hay crops, idle land, certain grain and row croplands, and ruderal lands. Swainson's hawks primarily feed on voles; however, they will feed on a variety of prey including small mammals, birds, and insects (CDFW 1994).		site or immediate vicinity north of Highway 50 because the area is largely developed. However, the potential for Swainson's hawk to occasionally forage over the project site or perch in trees on the project site could not be ruled out.
Elanus leucurus white-tailed kite	--/--/FP	Forages over open grasslands, savannahs, marshes, and cultivated fields. Nests in trees in a variety of locations including isolated trees, and edges and interior of stands (Zeiner et al. 1990).	**May Occur**	The blue oak woodland habitat on and adjacent to the project site provides marginally suitable nesting habitat. The small patches of undeveloped grassland habitat in the vicinity provides suitable foraging habitat for this species. This species is known to nest in tall trees in urban areas and forage in small habitat patches in urban areas including ruderal habitat along the shoulders of highways. The nearest documented occurrence of white-tailed kite is 2.2 miles south in Folsom (CNDDB 2021).
Falco columbarius	--/--/WL	An uncommon winter migrant in California;	Will not occur	There is no suitable coastal or

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
merlin		breeds in Alaska and Canada. Uses a variety of habitats but requires trees close to water for cover and is usually found near coastlines, lakeshores, and wetlands (Zeiner et al. 1990).		lakeshore habitat on or adjacent to the project site.
Haliaeetus leucocephalus bald eagle	--/CE/FP	Requires large bodies of water with an abundant fish population. Feeds on fish, carrion, small mammals, and water-fowl. Nests are usually located within a 1-mile radius of water. Nests are most often situated in large trees with a commanding view of the area (Zeiner et al. 1990).	Will not occur	There is no suitable coastal or lakeshore habitat on or adjacent to the project site.
Laterallus jamaicensis coturniculus California black rail	--/CT/FP	Inhabits brackish marsh, primarily in the upper marsh zone dominated by alkali heath (*Frankenia salina*), cattail, and rush (*Juncus*); prefers lower salinity environments. Forage on the ground, under cover of dense vegetation (USFWS 2013).	Will not occur	There is no suitable brackish marsh habitat on or adjacent to the project site.
Pandion haliaetus osprey	--/--/WL	Osprey breed in Northern California from the Cascade Ranges southward to Lake Tahoe, and along the coast south to Marin County. They prey primarily on fish but also predate small mammals, birds, reptiles, and invertebrates. Foraging areas include open, clear waters of rivers, lakes, reservoirs, bays, estuaries, and surf zones. Habitat and nesting requirements include large trees, snags, and dead-topped trees in open forest habitats for cover and nesting (Zeiner et al. 1988-1990).	Will not occur	There is no suitable aquatic habitat on or adjacent to the project site.
Phalacrocorax auritus double-crested cormorant	--/--/WL	A yearlong resident along the entire coast of California and on inland lakes, in fresh, salt and estuarine waters. Rests in daytime and roosts overnight beside water on offshore rocks, islands, steep cliffs, dead branches of tall trees, wharfs, jetties, or even transmission lines (Zeiner et al. 1998).	Will not occur	There is no suitable aquatic habitat on or adjacent to the project site.
Progne subis	--/--/SSC	Occurs as a summer resident and migrant,	Will not occur	There is no suitable coniferous

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
purple martin		primarily from mid-March to late September. Breeds from May (rarely late Apr) to mid-August. Purple martins are widely but locally distributed in coniferous forest and woodland areas at low to intermediate elevations throughout much of the state. Martins use a wide variety of nest substrates (e.g., tree cavities, bridges, utility poles, lava tubes, and, formerly, buildings), but nonetheless are very selective of habitat conditions nearby. Martins are most abundant in mesic regions, near large wetlands and other water bodies, and at upper slopes and ridges, which likely concentrate aerial insects (Shuford and Gardali 2008).		forest habitat on or adjacent to the project site.
Riparia riparia bank swallow	--/ST/--	Primarily inhabits riparian and other lowland habitats west of the deserts during the spring-fall period. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. In California, bank swallow primarily nests from Siskiyou, Shasta and Lassen Counties south along the Sacramento River to Yolo County. Also nests locally across much of state (Garrison 1999).	Will not occur	There are no suitable vertical banks, bluffs, or cliffs with fine textured soil and holes on or near the project site.

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
Mammals				
Antrozous pallidus pallid bat	--/--/SSC	Occurs throughout California except for the high Sierra Nevada and the northern Coast Ranges. Habitats include grasslands, shrublands, woodlands, and forests from sea level to 6,000 feet. Most common in open, dry habitats with rocky areas for roosting; roosts also include cliffs, abandoned buildings, bird boxes, and under bridges (Bolster, ed. 1998).	Will not occur	There is no suitable roosting habitat on or adjacent to the project site.
Taxidea taxus American badger	--/--/SSC	Inhabits drier open stages of most shrub, forest, and herbaceous habitats with loose, friable soils. Preys on a wide variety of mammals, reptiles, birds, and carrion, and hunts mostly by digging out fossorial prey. Occasionally takes prey on the surface. Not tolerant of cultivation. No longer occur in the Central Valley except in the extreme western edge (Williams 1986).	Will not occur	There are no suitable soils on the project site.
Plants				
Balsamorhiza macrolepis big-scale balsamroot	--/--/1B.2	Perennial herb. Grows on slopes in chaparral, cismontane woodland, and valley and foothill grassland, sometimes in serpentinite soil. Occurs at elevations from 45 – 1,555 m amsl. Flowering period March – June (CNPS 2021).	Will not occur	There is no suitable chaparral, cismontane woodland or grassland habitat or serpentinite soils for this species on the project site.
Calystegia stebbinsii Stebbins' morning-glory	FE/CE/1B.1	A perennial rhizomatous herb found on gabbroic or serpentine soils in chaparral and cismontane woodlands from 185 – 1,090 meters elevation. Blooms April – July (CNPS 2021).	Will not occur	There is no suitable chaparral or cismontane woodland habitat or serpentinite/gabbroic soils for this species on the project site.
Carex xerophila chaparral sedge	--/--/1B.2	A perennial herb found on serpentine and gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 440 – 770 meters elevation. Blooms March – June (CNPS 2021).	Will not occur	There is no suitable chaparral or forest habitat or serpentinite/gabbroic soils for this species on the project site.
Ceanothus roderickii Pine Hill ceanothus	FE/--/1B.1	A perennial evergreen shrub in serpentinite or gabbroic soils in cismontane woodlands and	Will not occur	There is no suitable chaparral or cismontane woodland habitat or

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
		chaparral found 245 – 1,090 meters elevation. Blooms April – June (CNPS 2021).		serpentinite/gabbroic soils for this species on the project site.
Chlorogalum grandiflorum Red Hills soaproot	--/--/1B.2	A perennial bulbiferous herb found on serpentine and gabbroic soils in lower montane coniferous forest, cismontane woodland and chaparral from 245 – 1,690 meters elevation. Blooms April – May (CNPS 2021).	Will not occur	There is no suitable chaparral or forest habitat or serpentinite/gabbroic soils for this species on the project site.
Chloropyron molle ssp. *hispidum* hispid salty bird's-beak	--/--/1B.1	An annual hemiparasitic herb found in alkaline habitats in meadows, seeps, playas, and valley and foothill grassland from 1 – 155 meters elevation in the Central Valley. Blooms June – September (CNPS 2021).	Will not occur	There are no alkaline habitats on the project site.
Crocanthemum suffrutescens Bisbee Peak rush-rose	--/--/3.2	A perennial evergreen shrub found in chaparral, often in burned or disturbed openings on gabbroic or Ione soils, from 75 – 670 meters elevation. Blooms April – August (CNPS 2021).	Will not occur	There is no suitable chaparral habitat or lone/gabbroic soils for this species on the project site.
Downingia pusilla dwarf downingia	--/--/2B.2	An annual herb found in vernal pools and mesic microsites in valley and foothill grassland from 1 – 445 meters elevation. Blooms March – May (CNPS 2021).	Will not occur	There is no suitable vernal pool habitat on the project site. The scraped depression on Lot 6 is too disturbed to provide suitable habitat.
Eryngium pinnatisectum Tuolumne button-celery	--/--/1B.2	An annual/perennial herb found in vernal pools in cismontane woodland and lower montane coniferous forest from 70 – 915 meters elevation. Blooms May – August (CNPS 2021).	Will not occur	There is no suitable vernal pool habitat on the project site. The scraped depression on Lot 6 is too disturbed to provide suitable habitat.
Fremontodendron decumbens Pine Hill flannelbush	FE/--/1B.2	A perennial evergreen shrub limited to rocky gabbroic or serpentinite soils in chaparral and cismontane woodland from 425 – 760 meters elevation. Blooms April – July (CNPS 2021).	Will not occur	There is no suitable chaparral or cismontane woodland habitat or serpentinite/gabbroic soils for this species on the project site.
Fritillaria eastwoodiae Butte County fritillary	--/--/3.2	A perennial bulbiferous herb found in chaparral, cismontane woodland, and lower montane coniferous forest from 50 – 1,500 meters elevation, sometimes on serpentine soils. Blooms	Will not occur	There is no suitable chaparral or forest habitat or serpentinite soils for this species on the project site.

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
		March – June (CNPS 2021).		
Galium californicum ssp. *sierrae* El Dorado bedstraw	FE/--/1B.2	A perennial herb found on gabbroic soils in chaparral, lower montane coniferous forest, and cismontane woodland from 100 – 585 meters elevation. Blooms May – June (CNPS 2021).	Will not occur	There is no suitable chaparral or forest habitat or gabbroic soils for this species on the project site.
Gratiola heterosepala Boggs Lake hedge-hyssop	--/CE/1B.2	An annual herb found on clay soils in marshes and swamps at lake margins, and in vernal pools from 10 – 2,375 meters elevation. Blooms April – August (CNPS 2021).	Will not occur	There are no swamps or vernal pools on the project site.
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	--/--/1B.2	An annual herb found in mesic soils in valley and foothill grassland from 30 – 299 meters elevation. Restricted to the edges of vernal pools in grassland habitat. Blooms March – May (CNPS 2021).	Will not occur	There is no suitable vernal pool habitat on the project site. The scraped depression on Lot 6 is too disturbed to provide suitable habitat.
Juncus leiospermus var. *leiospermus* Red Bluff dwarf rush	--/--/1B.1	An annual herb found in vernal pools and vernally mesic microsites in chaparral, cismontane woodland, meadows, seeps, and valley and foothill grassland from 35 – 1,250 meters elevation. Blooms March – June (CNPS 2021).	Will not occur	There are no vernal pools or other suitable habitats on the project site.
Legenere limosa legenere	--/--/1B.1	An annual herb found in vernal pools from 1 – 880 meters elevation. Blooms April – June (CNPS 2021).	Will not occur	There is no suitable vernal pool habitat on the project site. The scraped depression on Lot 6 is too disturbed to provide suitable habitat.
Navarretia myersii ssp. *myersii* pincushion navarretia	--/--/1B.1	An annual herb found in vernal pools from 20 – 330 meters elevation. Blooms April – May (CNPS 2021).	Will not occur	There is no suitable vernal pool habitat on the project site. The scraped depression on Lot 6 is too disturbed to provide suitable habitat.
Orcuttia tenuis slender Orcutt grass	FT/CE/1B.1	An annual herb found in vernal pools from 35 – 1,760 meters elevation. Blooms May to October (CNPS 2021).	Will not occur	There is no suitable vernal pool habitat on the project site. The scraped depression on Lot 6 is

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
				too disturbed to provide suitable habitat.
Orcuttia viscida Sacramento Orcutt grass	FE/CE/1B.1	An annual herb found in vernal pools from 30 – 100 meters elevation. Blooms April-July (Sep) (CNPS 2021).	Will not occur	There is no suitable vernal pool habitat on the project site. The scraped depression on Lot 6 is too disturbed to provide suitable habitat.
Packera layneae Layne's ragwort	FT/--/1B.2	An annual herb found on serpentine, rocky, or gabbroic soils in chaparral and cismontane woodlands from 200 – 1,085 meters elevation. Blooms April – August (CNPS 2021).	Will not occur	There is no suitable chaparral or cismontane woodland habitat or gabbroic soils for this species on the project site.
Sagittaria sanfordii Sanford's arrowhead	--/--/1B.2	A perennial rhizomatous herb found in marshes, swamps, and assorted shallow freshwater habitats from 0 – 650 meters elevation. Blooms May – October (November) (CNPS 2021).	Will not occur	There is no suitable aquatic habitat on the project site.

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
Wyethia reticulata El Dorado County mule ears	--/--/1B.2	A perennial herb found in clay or gabbroic soils in chaparral, cismontane woodlands and lower montane coniferous forest from 185 – 630 meters elevation. Flowering period April – August (CNPS 2021).	Will not occur	There is no suitable chaparral or forest habitat or gabbroic soils for this species on the project site.
Sensitive Natural Communities				
Alkali Meadows		Alkali meadows have a shallow water table and permanently moist alkaline soils. Low growing perennial grasses and sedges are characteristic of alkaline meadows. (Holland 1986)	Not Present	There is no alkali meadow habitat present on the project site.
Alkali Seep		Seeps scattered throughout the desert regions of California. Characterized by low-growing perennial herbs, usually forming fairly complete cover. Associated with Alkali Meadows. (Holland 1986)	Not Present	There is no alkali seep habitat present on the project site.
Northern Hardpan Vernal Pool		Low growing intermittent vegetation cover on vernal pool bottoms and edges. Pools are typically in geomorphic surfaces or volcanic substrates. Vegetation typically consists of downingia (*Downingia* spp.), vernal pool goldfields (*Lasthenia fremontii*), owl's clover (*Castilleja* spp.) and popcorn flower (*Plagiobothrys* spp.) (Holland 1986).	Not Present	There is no northern hardpan vernal pool habitat present on the project site.
Northern Volcanic Mud Flow Vernal Pool		Low growing vegetation restricted to depressions in Tertiary pyroclastic flows. Pools form from winter rains, and vegetation typically germinates in the fall, flowers in the winter and finishes in May. Vegetation typically consists of bristled downingia (*Downingia bicornuta*), smooth goldfields (*Lasthenia glaberrima*), and Rosy douglas' meadowfoam (*Limnanthes douglasii* ssp. *rosea*) and Marigold navarretia (*Navarretia tagetina*) (Holland 1986).	Not Present	There is no northern volcanic mud flow vernal pool habitat present on the project site.

Potential for Special-Status Species to Occur in the Project site

Scientific Name/Common Name	FESA/CESA/ CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale
Valley Needlegrass Grassland		A mid-height grassland dominated by tussock-forming purple needlegrass (*Stipa pulchra*) on fine textured to clay soils. This grassland may also contain native and non-native annuals between the bunch grass, which may exceed the bunchgrass in cover. This grassland often interdigitates with adjacent oak woodlands on moister and better drained sites. Vegetation typically consists purple needlegrass, nodding needlegrass (*Stipa cernua*), or other perennial bunchgrasses and native and non-native grasses and forbs (Holland 1986).	Not Present	There is no valley needlegrass grassland habitat present on the project site.

Note: Bold font indicates a species with the potential to occur in the Project site; these species are evaluated in detail in the body of the report.

*FESA=Federal Endangered Species Act; CESA=California Endangered Species Act; FE – FESA endangered; FT – FESA threatened; FC – FESA candidate; FD – FESA delisted; CE – CESA endangered; CT – CESA threatened; FP – Fully Protected; SSC – state species of special concern; CRPR – California Rare Plant Rank (see definitions of CRPR rankings below)

CNPS ratings: 1A = Presumed extirpated in California and rare elsewhere
1B = Rare, threatened, or endangered in California and elsewhere
1B.1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
1B.2 = Fairly endangered in California (20-80% occurrences threatened)
1B.3 = Not very endangered in California (fewer than 20% of occurrences threatened)
2B = Rare, threatened, or endangered in California but more common elsewhere.
2B.2 = Fairly endangered in California (20-80% occurrences threatened)
3 – more information needed

Global and State rankings in descending order of sensitivity (1=critically imperiled; 5=demonstrably secure).

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

Attachment C
Potential for Special-Status Species to Occur in the Project site

REFERENCES

Bolster, B.C., editor. 1998. Terrestrial Mammal Species of Special Concern in California. Draft Final Report prepared by P.V. Brylski, P.W. Collins, E.D. Pierson, W.E. Rainey and T.E. Kucera. Report submitted to California Department of Fish and Game Wildlife Management Division, Nongame Bird and Mammal Conservation Program for Contract No. FG3146WM.

California Department of Fish and Wildlife (CDFW). 1994. Staff report regarding mitigation for impacts to Swainson's hawk (*Buteo swainsoni*) in the Central Valley of California. November 1.

2012. Staff Report on Burrowing Owl Mitigation. March.

2021. California Natural Diversity Database (CNDDB); For: Folsom SE, Buffalo Creek, Carmichael, Roseville, Rocklin, Pilot Hill, Citrus Heights, Folsom, and Clarksville USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed [October 6, 2021].

California Native Plant Society (CNPS). 2021. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39) For: Folsom SE, Buffalo Creek, Carmichael, Roseville, Rocklin, Pilot Hill, Citrus Heights, Folsom, and Clarksville USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed [October 6, 2021].

Dechant, J. A., M. L. Sondreal, D. H. Johnson, L. D. Igl, C. M. Goldade, A. L. Zimmerman, and B. R. Euliss. 1999 (revised 2002). Effects of management practices on grassland birds: Ferruginous hawk. Northern Prairie Wildlife Research Center, Jamestown, ND. 23 pages.

Garrison, B. A. 1999. Bank Swallow (Riparia riparia). In: The Birds of North Amernica No. 414 (A. Poole and F. Gill eds.). The Birds of North America, Inc., Philadelphia, PA.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Department of Fish and Game, Nongame-Heritage Program.

Jennings, M.R. and M.P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final Report submitted to the California Department of Fish and [Wildlife], Inland Fisheries Division.

Koch, J., J. Strange, and P. Williams. 2012. Bumble bees of the Western United States. USDA-Forest Service, Pollinator Partnership. Washington, DC. 144 pp.

National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS). 2006. 50 CFR Part 223 and 224 [Docket No. 051216341-5341-01; I.D. No.052104] RIN 0648–AR93. Endangered and Threatened Species; Final Listing Determination for 10 Distinct Population Segments of West Coast Steelhead. Federal Register Vol. 71, No. 3. January 5.

Nial KR, Drizd L and Voorhies KJ (2019) Butterflies Across the Globe: A Synthesis of the Current Status and Characteristics of Monarch (Danaus plexippus) Populations Worldwide. Front. Ecol. Evol. 7:362. doi: 10.3389/fevo.2019.00362

Attachment C
Potential for Special-Status Species to Occur in the Project site

Rogers, D.C. 2001. Revision of the North American Lepidurus (Notostraca: Crustacea) with a description of a new species previously confused with two other species. Journal of Crustacean Biology.

Shuford, W.D., and T. Gardali, editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

Thorp, R. W., D. S Horning and L. L. Dunning. 1983. Bumble bees and cuckoo bumble bees of California (Hymenoptera: Apidae). Bulletin of the California Insect Survey 23: viii.

U.S. Fish and Wildlife Service (USFWS). 1995. Sacramento – San Joaquin Delta Native Fishes Recovery Plan. U.S. Fish and Wildlife Service, Portland, OR.

2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. viii + 173 pp.

2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Region 1, U.S. Fish and Wildlife Service, Portland, OR. December 15.

2013. Recovery Plan for tidal marsh ecosystems of Northern and Central California. Sacramento, California. xviii+ 605 pp.

2014. 50 CFR Part 17 RIN–0648–AO04 Endangered and Threatened Wildlife and Plants; Withdrawal of the Proposed Rule to Remove the Valley Elderberry Longhorn Beetle from the Federal List of Endangered and Threatened Wildlife. Federal Register Vol. 79, No. 180. September 17.

2017a. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus). U.S. Fish and Wildlife Service; Sacramento, California. 28 pp.

2017b. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (Ambystoma californiense). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. v + 69pp.

2017c. Recovery Plan for the Giant Garter Snake (Thamnophis gigas). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. vii + 71 pp.

Williams, D.F. 1986. California Mammal Species of Special Concern in California. Department of Biological Sciences California State University, Stanislaus and California Department of Fish and Game, Sacramento.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.

Plant Species Observed in the Study Area

Family	Species Name	Common Name	Status[1]
Native			
Asteraceae	*Baccharis pilularis*	coyote brush	--
	Holocarpha virgata	yellowflower tarweed	--
Boraginaceae	*Amsinckia* sp.	fiddleneck	--
Cyperaceae	*Eleocharis* sp.	spikerush	--
Euphorbiaceae	*Croton setiger*	doveweed	--
Fagaceae	*Quercus douglasii*	blue oak	--
	Quercus lobata	valley oak	--
	Quercus wislizeni	interior live oak	--
Lamiaceae	*Trichostema lanceolatum*	vinegarweed	--
Onagraceae	*Epilobium brachycarpum*	tall willowherb	--
Poaceae	*Muhlenbergia rigens*	deergrass	--
Non-native			
Apiaceae	*Eryngium* sp.	sea holly	--
Asteraceae	*Carduus pycnocephalus*	Italian thistle	Moderate
	Centaurea solstitialis	yellow star-thistle	High
	Cichorium intybus	chickory	--
	Dittrichia graveolens	stinkwort	Moderate
	Lactuca serriola	prickly lettuce	--
Brassicaceae	*Sisymbrium* sp.	rocket	--
Convolvulaceae	*Convolvulus arvensis*	field bindweed	--
Fabaceae	*Lotus corniculatus*	bird's-foot trefoil	--
	Trifolium hirtum	rose clover	Limited
Fagaceae	*Quercus suber*	cork oak	--
Hypericaceae	*Hypericum perforatum*	perforate St John's-wort	Limited
Poaceae	*Avena fatua*	common wild oat	Moderate
	Briza maxima	big quaking grass	Limited
	Bromus diandrus	ripgut brome	Moderate
	Bromus hordeaceus	soft brome	Limited
	Elymus caput-medusae	medusahead	High
	Festuca perennis	Italian rye-grass	Moderate
	Polypogon monspeliensis	annual beard-grass	Limited
	Vulpia myuros	annual fescue	--
Polygonaceae	*Rumex pulcher*	fiddle dock	--
Rosaceae	*Pyrus calleryana*	Bradford pear	Watch
	Rubus armeniacus	Himalayan blackberry	High

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

Table D-2. Wildlife Species Observed in the Study Area

Order/Family	Species Name	Common Name	Status[1]
Birds			
Accipitriformes			
Accipitridae	*Buteo jamaicensis*	red-tailed hawk	--
Cathartiformes			
Cathartidae	*Cathartes aura*	turkey vulture	--
Passeriformes			
Corvidae	*Corvus brachyrhynchos*	American crow	--
Fringillidae	*Haemorhous mexicanus*	house finch	--
Mimidae	*Mimus polyglottos*	northern mockingbird	--
Passerelidae	*Melozone crissalis*	California towhee	--
	Zonotrichia leucophrys	white-crowned sparrow	--
Picidae	*Colaptes auratus*	northern flicker	--
	Melanerpes formicivorus	acorn woodpecker	--
Sturnidae	*Sturnus vulgaris*	European starling	--
Mammals			
Lagomorpha			
Leporidae	*Lepus californicus*	black-tailed jackrabbit	--
Reptiles			
Squamata			
Phrynosomatidae	*Sceloporus occidentalis*	western fence lizard	--

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

Photo 1: View of the blue oak woodland habitat located in the southwestern corner of Lot 6. Photo taken October 13, 2021.

Photo 2: View of Tree #705, which has been recommended for removal due to its declining condition. Photo taken October 13, 2021.

Photo 3: View of ruderal/disturbed habitat and debris piles on Lot 6. Photo taken October 13, 2021.

Photo 4: View of depression that appears to be part of a stormwater management system for the surrounding Folsom Corporate Center development. Photo taken October 13, 2021.

Photo 5: View of the culvert outfall that drains stormwater runoff into the constructed depression. Photo taken October 13, 2021.

Photo 6: View of landscaping lining the eastern border of Lot 6. Photo taken October 13, 2021.

Photo 7: View of non-native annual grassland habitat in Lot 1, adjacent to Highway 50. Photo taken October 13, 2021.

Photo 8: View of non-native annual grassland habitat and power poles in Lot 1. Photo taken October 13, 2021.

December 29th, 2020

Rob Toste
The Grupe Company
3255 West March Lane, Suite 400
Stockton, CA 95219
RE: Arborist Report – Iron Point Road Apartments

Amended by Mike Thompson, ISA Certified Arborist WE-13098A on 4/27/21 Amendments made were the correction of a referenced Tree #706 to the correct tree which is Tree #705. Also that this tree itself is recommended for removal based on it's poor condition and not strictly for development. The corrections have been made below and will not reflect the original report made by Anthony May, but is the same report amended by Mike Thompson. In amending the report it lost the previous format.

Dear Mr. Toste,

The property located along Iron Point Road and Rowberry Drive (Lot # 1 located near Rowberry Drive and Lot # 6 along Iron Point Road per plans and maps provided) was visited on December 23rd, 2020 to tag, inventory and assess the oaks on site to determine the overall health, condition and structure of the trees in preparation for development of the open space. This report is being

prepared per City of Folsom Tree Preservation Ordinance 12.16 which is applicable to land development and has been attached.

While inspecting the trees in Lot # 1 and Lot # 6, trees were tagged with blue aluminum tree tags on the east side of each tree approximately 5 feet from bottom of trunk. There were multiple trees that had old tree tags and referenced them in photos attached. Tree tag number 702 was used in Lot # 1 and Tree tags 703-710 were used on Lot # 6. Additionally, each tree was mapped noted by the tree tag numbers and a spreadsheet attached with information on each tree per the City of Folsom ordinance. All nine trees are considered Native Oaks and are protected as they are over 6 inches in diameter and will require a tree protection and mitigation plan that will be required as part of the entitlement application. This could be in the form of re-planting which is 1" caliper per 1" of trunk removed or mitigation fees (currently at $ 389.00 per inch removed) or a combination of both.

Lot # 1 – per preliminary development plans provided

On this parcel of undeveloped land there is one Blue Oak (*Quercus douglasii*), Tree Tag # 702. This tree measures 41.1 inches at DSH (diameter at standard height) with a height of 60+ feet and a radius of approximately 40 feet and a health rating of 80% (rating of 4 per the City of Folsom ASCA Tree Rating System) and is considered to be a Heritage tree per City of Folsom. This tree has had recent limb failure on the south side of the tree mainly due to no prior maintenance and heavy weighted lateral limbs. Per the plans this tree is to remain in place and development will happen around it. I feel this could happen but measures will be put in place by

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the City of Folsom Arborist on how much can change in the critical root zone area of the tree which is noted in the ordinance for Heritage trees.

Lot # 6 – per preliminary development plans provided.

On this parcel of undeveloped land there was 8 Blue Oaks (*Quercus douglasii*), Tree Tag # 703 - # 710. These trees ranged from 20 inches at DSH to 35.1 inches DSH and have a canopy height of 15 feet to approximately 55-60 feet. Tree health ratings for these all averaged in the 60% (rating of 3 per the City of Folsom ASCA Tree Rating System) except for Tree # 705 which had a rating of 20% (rating of 1 per the City of Folsom ASCA Rating System). Per the development plans, these trees will all need to be removed as they are in the foot print of the development and are subject to replanting inch per inch or mitigation fees or a combination of both.

Please see below for development recommendations for Lot 1 – Tree # 702

Tree # 702 which may be impacted by development of the site shall have protection measures in place to avoid potential damage to the root zone, trunk or canopy. This includes, but is not limited to the establishment of a Tree Protection Zone (TPZ). The required specifications for the TPZ will be determined by the City of Folsom on a per project basis. However, the typical recommendation is the installation of a chain link fence with a minimum height of 60" from grade.

When installation of the chain link fence cannot enclose the tree, additional measures shall be taken to protect the trunk of the tree by wrapping it. It is recommended that 4"-6" of wood mulch be placed throughout the development zone and ¾" plywood be placed on the ground within the TPZ to minimize soil compaction and protect surface roots. Equipment, materials & vehicles shall not be stored or driven through TPZ. Applicable activities within the TPZ include, but are not limited to excavation, grading, trenching, cuts, fills & general disturbance of roots or soil within the dripline of the trees.

Should these activities be necessary within the TPZ, it is recommended that the contractor use hydro-excavation, pneumatic excavation or hand digging. If the above measures are taken the likelihood of reasonable preservation will be increased. While development is in progress no large mechanical equipment shall not be used within the dripline of the tree. If during work roots over 4" are encountered a certified arborist should be contacted. Any smaller roots shall be clean cut, with a sharp tool per ANSI A300 measures.

In conclusion, my professional opinion to the preservation of Tree # 702 is reasonable based upon provided plans but it will be up to the Folsom City Arborist to determine how much work can be completed near the critical root zone area of this tree and what measures will be put in place for the health of the tree.

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If you have any questions or concerns please feel free to contact me.

Sincerely,

Anthony May
Sacramento Region, VP
ISA Certified Arborist: WE-7520A

Diagnostic Procedures – Overall Health & Structure Determination

During the site visit, conducted on December 23rd, 2020 a visual inspection of the trunk, scaffold (large) branches, small branches, presence of disease or decay and vigor were considered to assess the overall health of the trees. Additionally, a visual inspection was conducted to observe any structural defects including cavities in the trunk or major leaders, uneven canopy distribution, included bark and co-dominant stems. Lastly, the viability of preservation in relation to tree location was considered.

Scoring System:

Critical to Poor (0% to 40%, Rating of 0-1 per City of Folsom) – Dead/Extreme Problems: Tree is dead with no visible growth, in severe decline, or significantly diseased

Poor to Fair (41% to 60% - Rating of 2-3 per City of Folsom)- Major Problems: Tree is in decline with decay and/or structural defects present, potential for future removal

Fair to Good (61% to 80%- Rating of 3-4 per City of Folsom) - Minor Problems/No apparent problems: Minor to significant problems present; some problems treatable and/or correctable

Good to Excellent (81% to 100% - Rating of 4-5 per City of Folsom): No problems, tree is in overall good health and vigor and is considered treatable to any observed health or pest problems

Certification

I, Anthony M. May, CERTIFY to the best of my knowledge and belief:

1. That the statements of fact contained in this report are true and correct.

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2. That the analysis, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and that they are my personal, unbiased professional analysis, opinions and conclusions.
3. That I have no present or prospective interest in the trees that are the subject and that I have no personal interest or bias with respect to the parties involved.
4. That my compensation is not contingent upon a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.
5. That my professional opinion is based on the information known to me at this time.

If more information is disclosed, I may have further opinions.

Limitations

The provided report is to be used for informational purposes only. It should be noted that the assessment in this report is based on above-ground inspection of the condition of the trees. No soil was removed and no aerial inspection was performed. However, due diligence in the accuracy of observations reported has been taken.

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of the trees and attempt to reduce the risk to people and structures near trees. Arborists cannot detect every condition that could lead to a tree failure. There are inherent risks with trees that cannot be predicted with any degree of certainty, even by the most skilled and experienced arborist. Since trees are living organisms their condition may change at any time. Often conditions are hidden within the tree and/or below ground out of the Arborists sight. Arborists cannot guarantee tree health and/or safety under all circumstances or for a specific period of time. Arborists cannot predict acts of nature including, without limitation, storms of sufficient strength which can even take down a tree with a vigorous and structurally sound appearance.

Trees can be managed but they cannot be controlled. To develop land and live near trees is to accept some degree of risk and the only way to eliminate all risk associated with trees would be to eliminate all of the trees. Anyone who builds, buys or lives in a structure within the vicinity of a tree should be aware of this Arborists' Disclaimer, and understand the risk that a tree could at any time suffer a branch and/or limb failure, fail in a storm and/or fall for no apparent reason which may cause bodily injury and/or property damage.

Neither Arborwell, nor the author has assumed any responsibility for liability associated with the trees on or adjacent to this property, and/or any damage which may result.

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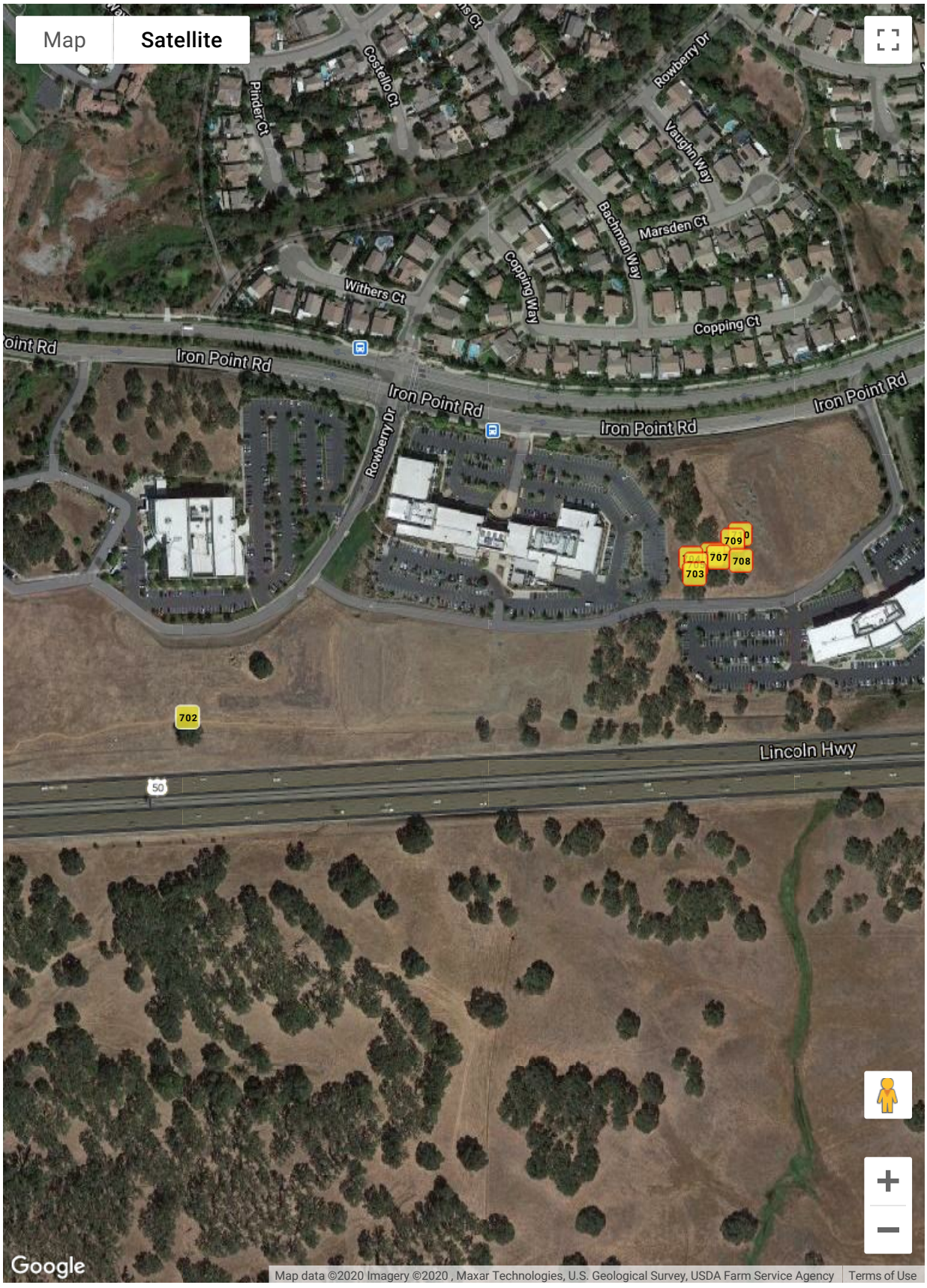

Legend (9)

Oak, Blue (9)