Memorandum

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Cc:	Jennifer Ostner, ICF, Project Manager
From:	Sean O'Brien and Shannon Henke, ICF, Biologists
Date:	April 18, 2024
Re:	**Biological Resources – City of Chico P18 Sewer Trunkline Project (No. 320-000-8800/50424-320-4120)** ICF #104784.0.001

Introduction

This memorandum presents the results of biological resources data review and field surveys for the City of Chico (City) P18 Sewer Trunkline Project (Project). The results will be used to support the California Environmental Quality Act and National Environmental Policy Act environmental documents, and future state and federal permitting processes. This memorandum includes the following subsections.

- Project Description
- Biological Resource Definitions
- Methods
- Biological Setting
- Results and Recommendations
- References Cited
- Attachments

The *Results and Recommendations* section summarizes the potential Project impacts, recommendations for avoidance and minimization measures, and the regulatory authorizations that may be required prior to Project construction.

The following attachments are included at the end of the memo.

- **Attachment A**. Figures
  - Figure 1. Project Vicinity
  - Figure 2. Soils
  - Figure 3. National Wetlands Inventory
  - Figure 4. CNDDB Plants and Critical Habitat
  - Figure 5. CNDDB Animals and Wildlife Critical Habitat
  - Figure 6. Biological Resources in the Survey Area
- **Attachment B**. Special-Status Species Database Query Results (CNDDB [B1], CNPS [B2], and IPaC [B3])
- **Attachment C**. Representative Photographs
- **Attachment D.** Species Observed

Project Description

Project Location

The Project is located within and immediately outside of the City of Chico, Butte County, California (**Attachment A, Figure 1**). The Project occurs along Midway, Entler Avenue, Cramer Lane, Morrow Lane, and Skyway and is bisected by State Route (SR) 99. The Project occurs on the Chico U.S. Geological Survey (USGS) 7.5-minute quadrangle.

The Project and its immediate surroundings consist of a residential, commercial, recreational, and agricultural land uses.

Project Details

The Project would install a sewer trunkline mainly in the unincorporated region outside the southern city limits. The trunkline would service the majority of the Honey Run/Doe Mill Special Planning Area, South Entler Special Planning Area, and commercial and industrial uses in the area. The proposed trunkline pipe diameter would range from 1.25–2.25 feet (18–27 inches), the trench width would be 6 feet wide with total easements 40 feet wide.

The trunkline would extend approximately 2.85 miles easterly starting from the existing P-17A sewer trunkline located near the intersection of Hegan Lane and the Comanche Creek Greenway bike path. From the connection point, the trunkline would cross Hegan Lane and travel under the Class I bike lane located immediately east of the northbound lane of Midway to Entler Avenue. The trunkline would continue along Entler Avenue going east, then continue along Entler Avenue going south for approximately 530 linear feet before crossing underneath SR 99 and extending along the UPRR right of way for approximately 630 linear feet. The trunkline then shifts north along a City easement, continues through Cramer Lane and heads east at Morrow Lane. At the eastern terminus of Morrow Lane, an existing 36-inch culvert originating on the north side of the Skyway conveys water southerly into an existing open ditch. The City proposes to install a manhole at the south end of the 36-inch culvert and connect a 40-foot-long pipe in the existing drainage ditch to provide

vehicular construction access to the P-18 Sewer Trunkline Project, and to facilitate future maintenance access to the easterly manholes located on the south side of Skyway. The Project would continue along the southside of Skyway just past the Potter Road intersection and terminate 191 feet east of a manhole on the south side of Skyway.

Areas of Disturbance and Excavation: The proposed trunkline areas of disturbance for construction, for construction equipment staging, and for vegetation grubbing and clearing are described below and shown on Figure 1. The pipeline laydown and construction work-area width would be restricted to a 40-foot-wide easement, except where it would be limited to the right of way, as noted below:

- Hegan Lane to Midway, trenched under existing pavement to the north of the intersection. Staging and construction within the right of way.
- Midway between Hegan Lane and Entler Ave, trenched under the existing bike path east of roadway. Staging and construction limited to the eastern right of way line to the easterly edge of pavement of Midway, which includes removal and replacement of the bike path and sidewalk.
- Entler Ave between Midway and SR 99, trenched within the northside/westbound lane of pavement. Equipment will work from paved eastbound lane.
- Entler Ave parallel to SR 99, trenched in centerline of paved roadway. Staging and construction is limited to the southbound lane.
- SR 99 undercrossing with jack and boring that will require a 20-foot by 50-foot pit southwest of the southbound lane and a 10-foot-square receiving pit plus 40-foot clearing and grubbing area on the northeast side of the northbound lane.
- Unpaved alignment between railroad grade and paved Cramer Lane, trenched in approximate centerline. Construction impacts would occur off pavement and include some tree and vegetation removal within the 40-foot-wide disturbance area.
- Paved Cramer Lane between unpaved area to the south (UPRR alignment) and Morrow Lane to the north, trenched in centerline of pavement. This section also requires jack and boring to construct a casing pipe under Comanche Creek. Because the pavement area is narrower than the 40-foot construction area, construction impacts may occur off pavement, including tree removal. The jack and bore pit, clearing and grubbing area would not extend into creek or wetland habitat, but it will require the removal and replacement of 22 feet of storm drain. Morrow Lane between Cramer Lane to where the road becomes Skyway, and then to Diversion Channel; trenched in southside/eastbound lane pavement. Equipment would work from paved westbound lane. Jack and bore pit located east of Diversion Channel, with the receiving pit to its west.
- Eastern terminus of Morrow Lane includes the installation of a manhole at the south end of an existing 36-inch culvert and connection to a 40-foot-long pipe in the existing drainage ditch.
- Skyway west of Potter Road, trenched off-pavement to south at toe of roadway fill slope. Equipment staged and used from paved eastbound lane.
- Skyway east of Potter Road to just past Potter Road intersection and terminate 191 feet east of a manhole. Equipment staged and used from paved eastbound lane.

Underground boring, as noted above, would occur at three locations to avoid impacts on surface feature, these are at SR 99, Comanche Creek, and at Butte Creek Diversion Channel. Each boring location would require a rectangular 20-foot by 50-foot jack and bore pit for pipeline insertion, and

a square 10-foot receiving pit. The maximum grading and excavation depth needed for most Project trenching, manhole-access, and jack and boring is primarily 10 feet, with depths up to 15 feet required in some locations.

Project construction would also require temporary staging areas for construction-related items such as vehicles, equipment, office trailers, portable toilets, pipe, manholes, and other construction materials; the stockpiling of fill and backfill; and for construction vehicle refueling and maintenance. The use of these areas would be temporary, and the timeframe would not exceed the duration of Project construction. All staging areas would be restored to pre-project conditions at the completion of the project. Replanting of areas along the construction alignment would include similar and native species, where appropriate and replanting within areas regulated by state and federal government agencies would be done in conformance with all associated permitting requirements.

Biological Resource Definitions

Special-Status Species

For the purpose of this document, special-status species are those species in any of the categories listed below.

- Species listed under the federal Endangered Species Act (FESA) as threatened (FT) or endangered (FE)
- Species listed under the California Endangered Species Act (CESA) as threatened (ST) or endangered (SE)
- Species listed as Rare under the California Native Plant Protection Act
- Candidate species proposed for listing under either FESA (FC) or CESA (SCE,SCT, STR)
- California Department of Fish and Wildlife (CDFW) fully protected species (FP)
- CDFW species of special concern (SSC)
- Special-status plants include in the Californica Native Plant Society (CNPS) Rare Plant Inventory (RPI) California Rare Plant Rank (CRPR) status plants include:
    - CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
    - CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
    - CRPR 2A: Plants presumed extirpated in California but common elsewhere
    - CRPR 2B: Plants rare, threatened, or endangered in California but common elsewhere
- Additionally, some CRPR 3 and CRPR 4 species may fall under section 15380 of CEQA
    - CRPR 3: Review list, plant about which more information is needed
    - CRPR 4: Watch list, plants of limited distribution

Plants that may warrant consideration on the basis of local significance or recent biological information (State CEQA Guidelines 15380[d]), i.e., plants that are not rare from a statewide perspective but is rare or unique in a local context, such as within a county or region (CEQA Sections 15125(c) and/or 15380(d) or are designated as such in local or regional plans, policies, or ordinances (Appendix G of the State CEQA Guidelines); this may include plants ranked CRPR 3

(plants about which more information is needed to determine their status) and CRPR 4 (uncommon, plants of limited distribution, CNPS 2020).

Sensitive Natural Community Ranking

Sensitive Natural Communities are Natural Communities with ranks of S1, S2, or S3 as assigned rarity ranks by the CDFW Vegetation Classification and Mapping Program and CNPS *A Manual of California Vegetation Online* was utilized to identify sensitive natural communities (CNPS 2024a). The ranks are defined as follows.

- S1: Statewide <6 viable occurrences and/or <518 hectares.
- S2: 6–20 occurrences, 581–2,590 hectares.
- S3: 21–100 occurrences, 2,590–12,950 hectares.
- S4: >100 occurrences, >12,950 hectares.
- S5: Demonstrably secure because of its worldwide abundance.
- A question mark (?) is added to ranks when there are insufficient samples and information leading to an inexact rank.

Methods

Survey Area

The biological survey area was determined based on the construction corridor and seven potential staging areas ("Project Footprint") (i.e., area of potential disturbance) and potential biological resources that could occur in the Project region. The Project Footprint is 40 feet wide and approximately 2.85 miles long plus 7 potential staging areas for a total of 21.82 acres. The biological resources survey area is a 250-foot buffer surrounding the Project Footprint (the Survey Area), for a total of 229.3 acres.

Desktop Review

A literature review was conducted to evaluate the environmental setting of the survey area and identify sensitive biological resources that may be present in or near the survey area. The following databases were queried, and results reviewed.

- A custom soil map was generated from the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2024) (**Attachment A, Figure 2**).
- The USFWS National Wetlands Inventory (USFWS 2024c) was used to identify potential wetlands and waters in the survey area (**Attachment A, Figure 3**).
- CDFW (2024) California Natural Diversity Database was queried for special-status species and historical sensitive natural communities occurrence records from a 5-mile radius from the survey area (**Attachment A, Figures 4 and 5 and Attachment B1**).
- The USFWS Critical Habitat Mapper was used (USFWS 2024b) to identify Critical Habitat in the survey area (**Attachment A, Figures 4 and 5**).

- CNPS online Rare Plant Inventory (CNPS 2024b) was queried for the special-status plant species known to occur within the eight U.S. Geological Survey (USGS) 7.5-minute quadrangles surrounding the survey area (Chico, Hamlin Canyon, Richardson Springs, Nord, Ord Ferry, Llano Seco, Nelson, and Shippee). One quadrangle surrounding the survey area was omitted due to it occurring in significantly different mountainous habitat, compared to the valley geographic position of the survey area (**Attachment B2**).
- The U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation (IPaC) online screening tool (USFWS 2024a) generated a list of USFWS jurisdictional species and other protected resources (e.g., Critical Habitat) known to occur in the survey area (**Attachment B3**).
- Biological Resource Assessment; Aquatic and Terrestrial Wildlife, and Botanical Resources; Valley's Edge Project in Butte County, California (Gallaway 2018).
- Biological Resource Assessment; Terrestrial Wildlife and Botanical Resources; Valley's Edge Off-site Infrastructure Project in Chico, California (Gallaway 2020).

Field Survey

ICF biologists performed biological field surveys in the survey area on April 10 and 11 and June 27 and 28, 2023, to identify and document habitats/land covers, special-status species habitats, and aquatic resources (wetland and non-wetland waters). Surveys were conducted on foot where possible, however portions of the survey area are on private property and were not accessible during the time of the survey. Areas that were not accessible were viewed and assessed from a distance or by binoculars. All accessible habitats and other biologically relevant features were noted, inspected, mapped, photographed, characteristics recorded, and were assessed to determine the suitability for special-status species reported from the vicinity. Representative photographs of land covers are provided in **Attachment C**.

The botanical survey was floristic in nature and all vascular plant species were identified to the level necessary to determine the status, when possible (when identifiable features were present). Botanical surveys followed *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). The survey dates captured the early and late blooming periods for all the special-status plants with potential to occur in the survey area. Wildlife surveys used scat, tracks, vocalizations, and other signs to as observations of wildlife species. Lists of plant and wildlife species observed are provided in **Attachment D.**

A desktop analysis of the proposed impacts on tree species with a diameter at breast height (DBH) greater the 4 inches in the Project 6-foot trenching width was conducted. Tree species identification is tentative.

Waters of the United States and Waters of the State

Potential waters of the United States (WOTUS) (including wetlands and non-wetland waters) and waters of the State (WoS) that may be regulated by the U.S. Army Corps of Engineers (USACE), CDFW, and/or Regional Water Quality Control Board were documented and mapped during the field surveys on April 10 and 11 and June 27 and 28, 2023, by ICF biologists. Potential aquatic resources were mapped within a 50-foot buffer on each side of the Project Footprint for a total of a 48.7-acre delineation area. The results of the aquatic resources delineation will be described in a separate report. Aquatic resources are described as aquatic land covers below in the *Biological Setting* section of this report.

Biological Setting

Existing Conditions

The Project is situated at the eastern edge of the Sacramento Valley, the northern portion of California's Central Valley, just west of the foothills at the base of the Sierra Nevada Mountains. This region is flanked to the east by the Sierra Nevada foothills and mountains which transition to gently slopes to flat topography that characterizes the valley. The eastern portion of the survey area occurs on the transition foothill alluvial fans to the upper portion of the valley, which continues to the west.

Climate

The survey area generally reflects a Mediterranean climate with cool, wet winters and warm, dry summers. The survey area occurs in a warm temperate climate with dry summers and hot arid temperatures according to the updated Köppen-Geiger Climate Classification Map (Kottek et al. 2006). This indicates potential evaporation and precipitation may be near equal (Bailey 2014). The arid conditions of the region are due in part to rain shadow effect where moist air coming from the Pacific Ocean rises once it reaches the mountains of the California coast range where the water vapor condenses and falls as precipitation and results in arid conditions, or a rain shadow, on the leeward side of the mountains.

The closest weather station to the Project with sufficient data is the Corning California Remote Automatic Weather Station (RAWS). The RAWS is located approximately 25 miles northwest of the Project at an elevation of approximately 294 feet above mean sea level (Western Regional Climate Center 2024). A summary of the analysis of 26-years of the RAWS data (from 1998 to 2023) is provided. The annual mean high temperature is 76.4 degrees Fahrenheit (°F), with average daily highs ranging from 56.1°F in December to 97.2°F in July. The annual mean low temperature is 50.8°F, with average daily lows ranging from 38.5°F in December to 65.4°F in July. The 26-year average annual precipitation is 19.3 inches, mostly falling during October through May with December and January having the most significant precipitation.

Recent Weather and Precipitation Before and During Fieldwork

The delineation occurred during the spring and summer of the 2023 water-year (October 1 of the previous year through September 30 of the referenced year). As of June 27, 2023 (the last day of fieldwork), precipitation for the Project vicinity was recorded at 28.69 inches for the 2023 water-year, above the 26-year average of 19.3 inches (Western Regional Climate Center 2024).

The timing of fieldwork was conducive to accurately delineating WOTUS/WoS in the survey area. Due to the above average rainfall year, vegetation throughout the Project was in bloom and readily identifiable during fieldwork. Additionally, wetland hydrology indicators were apparent and discernible where present.

Topography

The survey area is primarily topographically flat, and elevations range from approximately 200 feet above sea level near Hegan Lane to 250 feet near its eastern terminus along Skyway.

Hydrology

The survey area occurs in the Dubock Slough-Little Butte Creek (hydrologic unit code [HUC] 12: 180201580204) and Comanche Creek (HUC 12: 180201580301) subwatersheds, which are located in the Angel Slough (HUC 10: 1802015803) and Middle Butte Creek (HUC10: 1802015802) subwatersheds, which are further located within the Butte Creek (HUC8: 18020158) watershed (U.S. Fish and Wildlife Service 2024c).

The sources of hydrology in the survey area are direct precipitation and surface runoff. The ephemeral streams in the survey area flow west and join with Comanche Creek to the west of the survey area. Comanche Creek continues flowing west until it joins Little Chico Creek to become Angel Slough. Angel Slough flows into the Sacramento River, which eventually flows through the San Fransisco Bay Delta and into the Pacific Ocean. The Butte Creek Diversion Channel flows south until it joins Butte Creek, which continues southwest to the Sacramento River.

National Wetlands Inventory

The National Wetlands Inventory (NWI) provides maps and information on the status, extent, characteristics, and functions of wetland, riparian, deep-water, and related aquatic habitats in priority areas to promote the understanding and conservation of these resources. The mapping uses the U.S. Fish and Wildlife Service definition of wetland. The NWI mapping shows the extent of wetlands and deep-water habitats that can be determined with the use of remotely sensed data and originates from 1977 to the present. The NWI mapping, therefore, cannot be used to delineate wetlands and other WOTUS but can provide useful background information on the broad types of wetland and riparian vegetation communities in the survey area and vicinity.

A review of NWI online mapping (U.S. Fish and Wildlife Service 2024c) shows riverine, freshwater emergent wetland, and freshwater forested/shrub wetland mapped within the survey area (**Attachment A, Figure 3**). These features were mapped using aerial imagery from 1984, several of which are not presently found onsite. These features were mapped incorrectly or have possibly subsided over time due to surrounding developments and agricultural water use.

Land Use

The Project footprint is primarily situated along existing roads, which are used for transportation purposes. The survey area includes lands that are utilized for a combination of residential, commercial, recreational, and agricultural purposes. The Chico Seed Orchard, part of the Mendocino National Forest Genetic Resource and Conservation Center, occurs within the Survey Area along the east of Cramer Lane and is used for seed production, ecological restoration, and recreation (e.g., walking, wildlife watching, picnicking).

The surrounding area has similar land uses of residential, commercial, recreational, and agricultural. Residences and commercial buildings associated with the City of Chico occur to the north and south of the Project. Agricultural lands occur to the west of the Project. More natural lands occur to the east of the Project.

Soils

Soil map units in the survey area are listed in **Table 1** below (NRCS 2024). Soil map units are identified in this memo to support a determination of potential wetland features based on the

presence of "hydric soils." The only major soil map units within the survey area that are considered hydric are 118 – Xerorthents, Tailings and 0 to 50% slopes and 301 – Wafap-Hamslough, 0 to 2% slopes. The NRCS soil map is provided in **Attachment A, Figure 2**.

Table 1. Soils

Map Unit Symbol	Map Unit Name	Acres in Survey Area	Percent of Survey Area
118	Xerorthents, Tailings and 0 to 50%slopes	4.0	1.7%
300	Redsluff gravelly loam, 0 to 2% slopes	15.9	6.9%
301	Wafap-Hamslough, 0 to 2% slopes	2.6	1.1%
302	Redtough-Redswale, 0 to 2% slopes	43.3	18.9%
425	Vina fine sandy loam, sandy substratum, 0 to 2% slopes, MLRA 17	60.0	26.2%
445	Chico loam, 0 to 1% slopes	83.1	36.3%
447	Charger fine sandy loam, 0 to 1% slopes	15.1	6.6%
615	Doemill-Jokerst, 3 to 8% slopes	5.4	2.3%
Totals for Area of Interest			**229.3**

Source: NRCS 2024

Land Cover Types

Habitats were characterized using general land cover types and with an emphasis on distinguishing between upland and aquatic habitat types (**Table 2**). Additionally, land covers that conform to sensitive natural communities are indicated. **Attachment A, Figure 6** provides the distribution of land covers in the survey area and **Attachment C** provides representative photographs of the survey area. The terms land cover and habitats are used interchangeably.

Table 2. Upland and Aquatic Land Cover Types

Land Cover	State Rarity Rank	Acres in Survey Area	Acres of Potential Disturbance
Upland			
Agriculture		22.63	0.03
Annual Grassland		45.29	5.42
Developed		136.10	15.22
Upland Ditch		0.37	0.03
Valley Oak Woodland	S3	10.73	0.84
Aquatic			
Aquatic Ditch		0.38	0.01
Culvert		0.06	0.01
Emergent Marsh		0.52	0.00
Ephemeral Stream		0.78	0.00
Intermittent Stream		0.42	0.00
Perennial Stream		0.39	0.00
Seasonal Swale		0.27	0.00
Seasonal Wetland		0.35	0.00
Valley Oak Riparian Forest	S3	5.85	0.17

Land Cover	State Rarity Rank	Acres in Survey Area	Acres of Potential Disturbance
Vernal Pool Grassland Complex	S3	4.99	0.00
Vernal Swale		0.17	0.00
Total		**229.30**	**21.75**

Upland Land Covers

Agriculture

Agricultural landcovers in the survey area includes English walnut (*Juglans regia*) orchards and the Mendocino National Forest Chico Seed Orchard Administrative Site. These habitats are characterized by evenly spaced trees of the same age. The understory is variable and often has very low cover of weedy species or is of similar composition as the annual grassland land cover. Fallow farm fields and apiaries in the survey area were included in the annual grassland land cover based on the vegetation composition.

Annual Grassland

Annual grassland habitat is common in the survey area and is dominated by annual grasses and forbs. Plant species composition, density, and habitat quality are variable in this habitat. Some areas are dominated by introduced species, especially in areas that are routinely disturbed, whereas other areas can be dominated by a mix of native annual wildflowers. This habitat can intergrade with adjacent habitats, include planted ornamental trees and shrubs, and occasionally supports patches of perennial herbs. Common plant species observed includes slender oat (*Avena barbata*), common fiddleneck (*Amsinckia intermedia*), filaree (*Erodium* spp.), and foxtail barley (*Hordeum murinum*). Some staging areas in the survey area with grassland habitat are being utilized for bee keeping apiaries. These areas could be considered agricultural land covers, they are included in annual grassland based on the vegetation cover, not human use. Similarly, some fields in the survey area may have been subjected to relatively recent agricultural disturbance such as plowing/discing. These habitats were still included in the annual grassland land cover based on vegetation composition. Annual grassland can be utilized by common wildlife species including providing nesting and foraging habitat for birds.

Developed

Developed habitats are characterized by features associated with human development, including structures (e.g., buildings, bridges, etc.), roads and other paved and gravel surfaces. Developed habitats may include ornamental landscaping, weedy plant species, smaller portions of valley oak woodland and annual grassland habitat and can support wildlife species that utilize developed habitats.

Valley Oak Woodland

Valley oak woodland is characterized by the dominance of valley oak (*Quercus lobata*) trees. This habitat is present in the survey area, sometimes in rural, undeveloped areas and also in residential and rangeland settings. The understory is variable and slender oat and other species common in the annual grassland habitat are common. Other common understory species includes vetch (*Vicia* spp.),

ripgut brome (*Bromus diandrus*), and bedstraw (*Galium aparine*). Valley oak woodland habitat provides habitat to numerous wildlife and bird species due to it providing food sources, habitat structure, and potential nesting and cavity habitat. This habitat conforms to the sensitive natural community, valley oak woodland and forest (*Quercus lobata* Woodland Alliance, S3, CNPS 2024b).

Upland Ditch

Ditches in the survey area are constructed in uplands to drain uplands, and are common along roads in the survey area. These features support variable conditions, being unvegetated or supporting weedy upland species consistent with plant species present in the annual grassland habitat. Upland ditches would not be considered waters of the United State or waters of the State and therefore not regulated by state and federal agencies.

Aquatic Land Covers

Aquatic Ditch

Similar to upland ditches, aquatic ditches are constructed in uplands to drain uplands and are often connected to culverts. However, aquatic ditches support hydrophytic vegetation such as tall sedge (*Cyperus eragrostis*) and curly dock (*Rumex cripus*). One aquatic ditch is present within the survey area. The feature flows south under Morrow Lane and eventually into an ephemeral stream, which eventually flows into Comanche Creek.

Emergent Marsh

Emergent marsh habitat occurs in deeper portions of the seasonal pools associated with the Butte Creek Diversion Channel. Emergent marshes are characterized by herbaceous vegetation that is adapted to prolonged periods of water inundation.

Ephemeral Stream

Ephemeral streams in the survey area convey surface flow. These features have a bed, bank, and show evidence of frequent and recent waterflow. Two ephemeral streams are present in the survey area. Both streams flow west and join with Comanche Creek to the west of the survey area. Both streams were observed with flowing water on April 10, 2023, and were dry on June 27, 2023.

Intermittent Stream

Butte Creek Diversion Channel is the one intermittent stream identified in the survey area. The stream is supported by groundwater though rainfall also contributes to flow. It is anticipated to be inundated seasonally following rainfall events. This feature's name implies that portions of it may have been modified in the past, and urban and agricultural development surrounds this feature in some locations within and outside of the survey area. Structures such as bridges, roads, and associated reinforcement (e.g., riprap) confine and reinforce the channel and alter the conveyance of water through the feature. Intermittent streams can support hydrophytic vegetation adapted to the hydrological conditions of the stream; however, plant phenology was dormant or in early conditions during the survey. The feature was observed flowing water on April 10, 2023, and dry (saturated soils) on June 27, 2023.

Perennial Stream

Perennial streams are water courses that flow year-round. Comanche Creek is a perennial stream in the survey area and is surrounded by valley oak riparian woodland habitat on the banks. This habitat is primarily unvegetated in the survey area, likely due to regular scouring, though occasional patches of hydrophytic vegetation may be present. This habitat is valuable for aquatic wildlife species. One perennial stream is present within the survey area (Comanche Creek). The stream is anticipated to inundated and flowing water year-round with increased hydrologic inputs following rain events. The feature was observed flowing water on April 10, 2023, and June 27, 2023.

Seasonal Swale

Seasonal swales are characterized by linear stream like feature, with a topographic low in the landscape, which conveys overland flow of water. Seasonal swales in the survey area are dominated by herbaceous vegetation. The two seasonal swales in the survey area are located to the north and south of Skyway, in the northeast portion of the survey area, but outside the Project footprint.

Seasonal Wetland

Seasonal wetlands are convex-shaped features that are typically inundated with water for a prolonged period and typically support plant species adapted for prolonged saturation and anaerobic conditions. Seasonal wetlands can form from natural depressions or soil modification (e.g., soil compaction or excavation, installation of berms, other impoundments or similar artificial features). Seasonal wetlands are present in the vernal pool complex land cover and along Butte Creek Diversion Channel. Some of these depressions were supporting surface water during the time of the survey, and it is unclear whether these areas are vegetated in the later portion of the growing season. The duration of ponding in these areas likely exceeds the average extent this year due to above average precipitation and below average temperatures this past winter.

Valley Oak Riparian Forest

Valley oak riparian forest habitat grows along the banks of perennial stream Comanche Creek in the survey area. This habitat has a diverse canopy including valley oak, Oregon ash (*Fraxinus latifolia*), California sycamore (*Platanus longate*), and Northern California black walnut (*Juglans hindsii*); redbud (*Cercis occidentalis*), California grape (*Vitis californica*), and poison oak (*Toxicodendron diversilobum*) in the low canopy, and a mix of shrubs, herbs, and graminoids in the understory. Numerous wildlife species likely use this habitat. This habitat, along with the perennial stream, provides habitat moderate connectivity to other habitats in the vicinity. This habitat conforms to the sensitive natural community, valley oak riparian forest and woodland (*Quercus lobata* Riparian Forest and Woodland Alliance, S3, CNPS 2024b).

Vernal Pool Grassland Complex

Vernal pool grassland complex is characterized by mesic grassland habitat that support seasonal pools with specialized plant species associated with the unique growing conditions, and often surrounded by upland grasslands. Vernal pools are associated with soils that are usually shallow, rocky and underlaid with a hardpan or relatively impervious layer resulting in a seasonally perched water table. This habitat occurs on the Doemill-Jokerst, 3 to 8% slopes soil map unit (615, NRCS 2024), which is located to the north of Skyway, in the northeast portion of the survey area, but outside the Project Footprint. Plant species common in this diverse habitat includes yellow carpet

(*Blennosperma nanum*), goldfields (*Lasthenia californica*), Sierra foothill microseris (*Microseris acuminata*), water montia (*Montia fontana*), Rebecca Austin's allocarya (*Plagionbothrys austiniae*), fulvous popcorn flower (*P. fulvus*), coastal plantain, (*Plantago 13longate*), Sierra mock stonecrop (*Sedella pumila*) and dwarf sack clover (*Trifolium depauperatum*). Upland areas have similar composition as described in the annual grassland land cover, including more introduced annual grasses and forb. Due to lack of access to portions of this habitat during the survey, and variability in flowering time of different species (phenology) a confident identification of the habitat sensitive natural community status cannot be made. It is likely that this habitat is sensitive and may conform to the sensitive natural community, Fremont's tidy tips – blow wives vernal pools (*Layia fremontii* – *Achyrachaena mollis* Herbaceous Alliance, S3?,) or Water blinks – annual checkerbloom vernal pools (*Montia fontana* – *Sidalcea calycosa* Herbaceous Alliance, S2, CNPS 2024b).

Vernal Swale

One vernal swale occurs in the survey area and is a depression with herbaceous vegetation and the presence of rosy Douglas' meadowfoam (*Limnanthes douglasii* ssp. *rosea*), popcorn flower (*Plagiobothrys* sp.), and curly dock. The vernal swale connects to an ephemeral stream in the survey area.

Sensitive Natural Communities and USFWS Critical Habitat

Three sensitive natural communities are present in the survey area: valley oak woodland, valley oak riparian forest, and vernal pool grassland complex.

Designated USFWS Critical Habitats do not occur in the survey area (USFWS 2024b). Critical Habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp, hairy Orcutt grass, Hoover's spurge, Greene's tuctoria, and Butte County meadowfoam occur within 5 miles of the survey area (CDFW 2024). The closest Critical Habitat is for vernal pool fairy shrimp, vernal pool tadpole shrimp, and Butte County meadowfoam, which occur 1.4 miles north of the survey area within vernal pool habitat (**Attachment A, Figures 4 and 5**).

Special-Status Species

The special-status plant species reported from the region are provided in **Table 3, Attachment A, Figure 4, and Attachment B**. Special-status plant species were not observed during the spring or summer vascular plant survey. A total of 41 special-status plant species are reported from the region and 31 have potential to occur within the survey area. The special-status wildlife species reported from the region are provided in **Table 4, Attachment A, Figure 5, and Attachment B**. A total of 23 special-status wildlife species are reported from the region and 11 have potential to occur within the survey area, including vernal pool fairy shrimp, vernal pool tadpole shrimp, Crotch's bumble bee, monarch butterfly, valley elderberry longhorn beetle, western spadefoot, western pond turtle, tricolored blackbird, burrowing owl, Swainson's hawk, and western mastiff bat.

Table 3. Special-status plant species reported from the region

Common and Scientific Name	Federal/State/ CRPR	Blooming Period	Associated Habitats[1]	Potential to Occur in the Survey Area
Depauperate milk-vetch *Astragalus pauperculus*	None/None/4.3	Mar-Jun	General: Chaparral, Cismontane woodland, Valley and foothill grassland Micro: Vernally Mesic, Volcanic Elevation: 195 to 3985 feet	High. Suitable vernally mesic habitats with volcanic clay substrates are present in the survey area. The closest record is approximately 3.5 miles north of the survey area in Bidwell Park (CHSC012922, CCH2 2024).
Ferris' milk-vetch *Astragalus tener* var. *ferrisiae*	None/None/1B.1	Apr-May	General: Meadows and seeps (vernally mesic), Valley and foothill grassland (subalkaline flats) Elevation: 5 to 245 feet	Moderate. Suitbale vernally mesic meadows are present in the survey area. The closest record is 8.1 miles northwest of the survey area (ON 3, CDFW 2024).
Mexican mosquito fern *Azolla microphylla*	None/None/4.2	Aug	General: Marshes and swamps (ponds, slow water) Elevation: 100 to 330 feet	Low. Marginally suitable streams and emergent fresh water marsh habitats are present in the survey area. The closest record is approximatley 16.6 miles south of the survey area (Calflora 2024).
Big-scale balsamroot *Balsamorhiza macrolepis*	None/None/1B.2	Mar-Jun	General: Chaparral, Cismontane woodland, Valley and foothill grassland Micro: Serpentinite (sometimes) Elevation: 150 to 5100 feet	High. Suitable rocky grassland habitats are present in the survey area. The closest record is 1.0 miles northwest of the survey area (ON 45, CDFW 2024).
Watershield *Brasenia schreberi*	None/None/2B.3	Jun-Sep	General: Marshes and swamps (freshwater) Elevation: 0 to 7220 feet	Low. Marginally suitable streams are present in the survey area. The cloeset known record is approximatley 10.6 miles northeast of the survey area (EO 14, CDFW 2024).
Valley brodiaea *Brodiaea rosea* ssp. *vallicola*	None/None/4.2	Apr-May(Jun)	General: Valley and foothill grassland, Vernal pools Micro: Alluvial Terraces, Gravelly, Sandy Elevation: 35 to 1100 feet	Moderate. Suitable grassland habitat is present in the survey area. The closest record is 0.9 miles south of the survey area (CHSC2071, CCH 2024).

[1] CNPS 2024b

Common and Scientific Name	Federal/State/ CRPR	Blooming Period	Associated Habitats[1]	Potential to Occur in the Survey Area
Brassy bryum *Bryum chryseum*	None/None/4.3		General: Chaparral (openings), Cismontane woodland, Valley and foothill grassland Elevation: 165 to 1970 feet	Low. Suitable grassland habitat is present in the survey area. The closest record is 11.1 miles southest of the survey area (CNPS 2024b).
Butte County calycadenia *Calycadenia oppositifolia*	None/None/4.2	Apr-Jul	General: Chaparral, Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland Micro: Granitic (sometimes), Openings, Serpentinite (sometimes), Volcanic Elevation: 295 to 3100 feet	Low. Suitable grassland and woodland habitats with volcanic substrates are present in the survey area, however this species has record that have georeferencing or identificatoin issues, or the species range needs revision. The closest record with a reliable location is 26 miles north of the survey area (JEPS33811, CCH2 2024).
Butte County morning-glory *Calystegia atriplicifolia* ssp. *buttensis*	None/None/4.2	May-Jul	General: Chaparral, Lower montane coniferous forest, Valley and foothill grassland Micro: Roadsides (sometimes), Rocky Elevation: 1855 to 5000 feet	Low. Suitable grassland habitat is present in the survey area however, the survey area is outside of this species reported elevational range and more typically occurs in dry forest, woodland, and chaparral habitats. However, a relatively recent collection (2004), approximately 6.2 miles west of the survey area, challeges this species known distribution (BLMRD0279, CCH2 2024).
Dissected leaf toothwort *Cardamine pachystigma* var. *dissectifolia*	None/None/1B.2	Feb-May	General: Chaparral, Lower montane coniferous forest Micro: Rocky, Serpentinite (usually) Elevation: 835 to 6890 feet	None. The survey area lacks suitable habitat, is outside of this species known elevational range, and lack serpentine subtrate. The closest record is 13.0 miles east of the survey area (ON 3, CDFW 2024).
Pink creamsacs *Castilleja rubicundula* var. *rubicundula*	None/None/1B.2	Apr-Jun	General: Chaparral (openings), Cismontane woodland, Meadows and seeps, Valley and foothill grassland Micro: Serpentinite Elevation: 65 to 2985 feet	None. Suitable serpentinite substrate is not present in the survey area. The closest record is 6.7 miles southeast of the survey area (EO 6, CDFW 2024).

Common and Scientific Name	Federal/State/ CRPR	Blooming Period	Associated Habitats[1]	Potential to Occur in the Survey Area
Parry's rough tarplant *Centromadia parryi* ssp. *rudis*	None/None/4.2	May-Oct	General: Valley and foothill grassland, Vernal pools Micro: Alkaline, Roadsides (sometimes), Seeps, Vernally Mesic Elevation: 0 to 330 feet	Low. Suitable grassland, vernally mesic, and disturbed habitats are present in the survey area, however the survey area is northeast of this species known range. The closest record is 6.5 miles southwest of the survey area (JEPS88496, CCH2 2024).
White-stemmed clarkia *Clarkia gracilis* ssp. *albicaulis*	None/None/1B.2	May-Jul	General: Chaparral, Cismontane woodland Micro: Serpentinite (sometimes) Elevation: 805 to 3560 feet	None. The survey area is outside of this species known elevational range and lacks serpentine subtrate. The closest CNDDB record is 13.0 miles east of the survey area (ON 3, CDFW 2024), however other collections indicate georeferencing issues, a range revision, or misidentification (JFP 2024).
Marsh claytonia *Claytonia palustris*	None/None/4.3	May-Oct	General: Marshes and swamps, Meadows and seeps (mesic), Upper montane coniferous forest Elevation: 3280 to 8205 feet	None. The survey area is ouside of this species elevational range. However there is a historical record from 1926 reported near Chico (RSA65644, CCH2 2024), approxiamtely 2.2 miles north of the survey area, though this and other records may have georeferencing or identification issues or alternatively this species range may need revising (JFP 2024).
Silky cryptantha *Cryptantha crinita*	None/None/1B.2	Apr-May	General: Cismontane woodland, Lower montane coniferous forest, Riparian forest, Riparian woodland, Valley and foothill grassland Micro: Gravelly Elevation: 200 to 3985 feet	Low. Suitable riparian woodland and grassland habiltats are present in the survey area however this species more typically occurs in foothill woodland. The closest record is 26.6 miles north of the survey area.
Red-stemmed cryptantha *Cryptantha rostellata*	None/None/4.2	Apr-Jun	General: Cismontane woodland, Valley and foothill grassland Micro: Gravelly (often), Openings, Roadsides (often), Volcanic Elevation: 130 to 2625 feet	Moderate. Suitable grassland habitat with volcanic substrate is present in the survey area, however there is only one historical record from 1887 reported from the Chico region (UC194024, CCH2 2024).

Common and Scientific Name	Federal/State/ CRPR	Blooming Period	Associated Habitats[1]	Potential to Occur in the Survey Area
Recurved larkspur *Delphinium recurvatum*	None/None/1B.2	Mar–Jun	General: Chenopod scrub, Cismontane woodland, Valley and foothill grassland Micro: Alkaline Elevation: 10 to 2590 feet	None. Suitable alkaline grassland and scrub habitats are not present in the survey area. The closest record is 11.4 miles south of the survey area (ON 63, CDFW 2024).
Ahart's buckwheat *Eriogonum umbellatum* var. *ahartii*	None/None/1B.2	Jun–Sep	General: Chaparral, Cismontane woodland Micro: Openings, Serpentinite, Slopes Elevation: 1310 to 6560 feet	None. The survey area lacks suitable serpentine and slopes habitats and is outside of this species known elevational range. The closest record is 11.9 miles northeast of the survey area (ON 24, CDFW 2024).
Shield-bracted monkeyflower *Erythranthe glaucescens*	None/None/4.3	Feb–Aug(Sep)	General: Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland Micro: Seeps, Serpentinite, Streambanks (sometimes) Elevation: 195 to 4070 feet	Present. This annual species was detected along Little Chico Creek in suitable streambank habitat in the survey area. A total of four individuals were observed, two of which occur in the 40-foot easement. The species was not observed within the Project 6-foot wide trenching area.
Hoover's spurge *Euphorbia hooveri*	FT/None/1B.2	Jul–Sep(Oct)	General: Vernal pools Elevation: 80 to 820 feet	Moderate. Suitable vernal pool habitat is present in the survey area. The closest record is 6.3 miles southeast of the survey area (ON 4, CDFW 2024).
Adobe-lily *Fritillaria pluriflora*	None/None/1B.2	Feb–Apr	General: Chaparral, Cismontane woodland, Valley and foothill grassland Micro: Adobe (often) Elevation: 195 to 2315 feet	Low. Suitable grassland and woodland habitats are present in the survey area however this species typically grows on adobe clay soils and serpentine substrates which are not present in the survey area. The closest known record is 2.7 miles south of the survey area (ON 33, CDFW 2024).
Hogwallow starfish *Hesperevax caulescens*	None/None/4.2	Mar–Jun	General: Valley and foothill grassland (mesic clay), Vernal pools (shallow) Micro: Alkaline (sometimes) Elevation: 0 to 1655 feet	Moderate. Suitable vernal pool habitat is present in the survey area. The closest record is a historical one in the Chico area (CAS-BOT310155, CCH2 2024).

Common and Scientific Name	Federal/State/ CRPR	Blooming Period	Associated Habitats[1]	Potential to Occur in the Survey Area
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	None/None/1B.2	Jun–Sep	General: Marshes and swamps (freshwater) Elevation: 0 to 395 feet	Moderate. Suitable freshwater marsh habitat is present in the survey area. The closest known record is 5.9 miles southwest of the survey area (ON 70, CDFW 2024).
California satintail *Imperata brevifolia*	None/None/2B.1	Sep–May	General: Chaparral, Coastal scrub, Meadows and seeps (often alkali), Mojavean desert scrub, Riparian scrub Micro: Mesic Elevation: 0 to 3985 feet	Low. Marginally suitable riparian scrub and meadow habitats are present in the survey area however this species more typically occurs in alkali habitat. The closest record is 6.8 miles northeast of the survey area (ON 25, CDFW 2024)
Red Bluff dwarf rush *Juncus leiospermus* var. *leiospermus*	None/None/1B.1	Mar–Jun	General: Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools Micro: Vernally Mesic Elevation: 115 to 4100 feet	Moderate. Suitbable vernal pool and mesic woodland habitats are present in the survey area. The closest record is 10 miles east of the survey area (ON 46, CDFW 2024).
Ferris' goldfields *Lasthenia ferrisiae*	None/None/4.2	Feb–May	General: Vernal pools (alkaline, clay) Elevation: 65 to 2295 feet	Moderate. Suitable vernal pool habitat is present in the survey area. The closest record is approxiamtely 6.9 miles south of the survey area (UC195381, CCH2 2024).
Serpentine leptosiphon *Leptosiphon ambiguus*	None/None/4.2	Mar–Jun	General: Cismontane woodland, Coastal scrub, Valley and foothill grassland Micro: Serpentinite (usually) Elevation: 395 to 3710 feet	None. The survey area lacks suitable serpentine substrate and is outside of this species known range. There are no known records is the Chico region (CCH2 2024).
Humboldt lily *Lilium humboldtii* ssp. *humboldtii*	None/None/4.2	May–Jul(Aug)	General: Chaparral, Cismontane woodland, Lower montane coniferous forest Micro: Openings Elevation: 295 to 4200 feet	None. Marginal woodland habitat is present in the survey area however this species typically occurs in pine forest and chaparral habitats, not present in the survey area. The closest record is 19.1 miles northeast of the survey area and is indicated as having georeferencing or identification issues, or that this species range should be revised (CHSC38881, CCH2 2024).

Common and Scientific Name	Federal/State/ CRPR	Blooming Period	Associated Habitats[1]	Potential to Occur in the Survey Area
Butte County meadowfoam *Limnanthes floccosa* ssp. *californica*	FE/CE/1B.1	Mar–May	General: Valley and foothill grassland (mesic), Vernal pools Elevation: 150 to 3050 feet	High. Suitable vernal pool habitat is present in the survey area. A record of this species overlaps the survey area which is presumed extant (ON 22, CDFW 2024).
Woolly meadowfoam *Limnanthes floccosa* ssp. *floccosa*	None/None/4.2	Mar–May(Jun)	General: Chaparral, Cismontane woodland, Valley and foothill grassland, Vernal pools Micro: Vernally Mesic Elevation: 195 to 4380 feet	High. Suitable vernal pool, grassland, and woodland habitats are presnt in the survey area. The closest record is 4.7 miles north of the survey area (ON 4, CDFW 2024).
Veiny monardella *Monardella venosa*	None/None/1B.1	May–Jul	General: Cismontane woodland, Valley and foothill grassland Micro: Clay Elevation: 195 to 1345 feet	Moderate. Suitable grassland and woodland habitats are present in the survey area. The closest record is a historical one from from the Chico Valley, however this record indicates there is an issue with the identification, georeferencing or with the species' reported range (CCH2 2024).
Tehama navarretia *Navarretia heterandra*	None/None/4.3	Apr–Jun	General: Valley and foothill grassland (mesic), Vernal pools Elevation: 100 to 3315 feet	High. Suitable vernal pools and mesic meadow habitats are present in the survey area. The closest record is approximately 0.8 miles north of the survey area (CHSC43942, CCH2 2024).
Ahart's paronychia *Paronychia ahartii*	None/None/1B.1	Feb–Jun	General: Cismontane woodland, Valley and foothill grassland, Vernal pools Elevation: 100 to 1675 feet	High. Suitable vernal pool, grassland, and woodland habitats are present in the survey area. The closest record is 5 miles north of the survey area (ON 8, CDFW 2024)
Bidwell's knotweed *Polygonum bidwelliae*	None/None/4.3	Apr–Jul	General: Chaparral, Cismontane woodland, Valley and foothill grassland Micro: Volcanic Elevation: 195 to 3935 feet	High. Suitable grassland and woodland habitats with volcanic derived soils are present in the survey area. The closest record is 0.8 miles north of the survey area (DAV308812, CCH2 2024).

Common and Scientific Name	Federal/State/ CRPR	Blooming Period	Associated Habitats[1]	Potential to Occur in the Survey Area
California beaked-rush *Rhynchospora californica*	None/None/1B.1	May–Jul	General: Bogs and fens, Lower montane coniferous forest, Marshes and swamps (freshwater), Meadows and seeps (seeps) Elevation: 150 to 3315 feet	None. Suitable marsh habitat is present in the survey area however this species typically occurs in mesic areas lower montane forest, not present in the survey area. The closest record is 4.1 miles northeast of the survey area (ON 11, CDFW 2024).
Brownish beaked-rush *Rhynchospora capitellata*	None/None/2B.2	Jul–Aug	General: Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Upper montane coniferous forest Micro: Mesic Elevation: 150 to 6560 feet	None. Marginally suitable marsh habitat is present in the survey area, however this species typically grows in mesic areas in lower and upper montane forest, or coastal salt marshes, not present in the survey area. The closest known record is 7.9 miles east of the survey area (ON 9, CDFW 2024).
Butte County checkerbloom *Sidalcea robusta*	None/None/1B.2	Apr–Jun	General: Chaparral, Cismontane woodland Elevation: 295 to 5250 feet	Low. Marginally suitable woodland habitat is present in the survey area however, this species typically grows in foothill woodland or chaparral. The closest record is 1.3 miles north of the survey area (ON 15, CDFW 2024).
Northern slender pondweed *Stuckenia filiformis* ssp. *alpina*	None/None/2B.2	May–Jul	General: Marshes and swamps (shallow freshwater) Elevation: 985 to 7055 feet	High. Suitable fresh water marsh habitat is present in the survey area. The closest record is 0.8 mile to the east of the of the survey area (ON 19, CDFW 2024).
Butte County golden clover *Trifolium jokerstii*	None/None/1B.2	Mar–May	General: Valley and foothill grassland (mesic), Vernal pools Elevation: 165 to 1575 feet	Low. Suitable vernal pool and grassland habitats are present in the survey area, however the survey area is outside of this species known geographic range. The closest record is 10.5 miles south east of the survey area (ON 11, CDFW 2024).
Greene's tuctoria *Tuctoria greenei*	FE/CR/1B.1	May–Jul(Sep)	General: Vernal pools Elevation: 100 to 3510 feet	Moderate. Suitable vernal pool habitat is present in the survey area. The closest record is 12.4 miles southeast of the survey area (ON 18, CDFW 2024).

Common and Scientific Name	Federal/State/ CRPR	Blooming Period	Associated Habitats[1]	Potential to Occur in the Survey Area
Brazilian watermeal *Wolffia brasiliensis*	None/None/2B.3	Apr–Dec	General: Marshes and swamps (shallow freshwater) Elevation: 65 to 330 feet	Moderate. Suitable ponding habitat is present in the survey area. The closest record is 6.7 miles west of the survey area (ON 2, CDFW 2024).

Federal Status Codes

FE	Federally Endangered
FT	Federally Threatened
FC	Federal Candidate Species
FD	Federally Delisted

State Status Codes

SE	State Endangered
ST	State Threatened
SC	State Candidate
SD	State Delisted

CRPR

1A	Presumed extirpated in California and rare or extinct elsewhere
1B	Rare, threatened, or endangered in California and elsewhere
2A	Plants presumed extirpated in California, but more common elsewhere
2B	Plants rare, threatened, or endangered in California, but more common elsewhere
3	A review list, more information is needed
4	Watch list, plants of limited distribution

CRPR Threat Rank

0.1	Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2	Moderately endangered in California (20–80% occurrences threatened)
0.3	Not very endangered in California (<20% of occurrences threatened)

Table 4. Special-status wildlife species reported from the region

Common and Scientific Name	Status Fed/State	Associated Habitats	Potential to Occur in the Survey Area
Invertebrates			
Conservancy fairy shrimp *Branchinecta conservatio*	FE/_	Moderately turbid, deep, cool-water vernal pools	**None**. Vernal pools within the survey area are not suitable for Conservancy fairy shrimp (i.e., no large, deep pools in the survey area). There are no CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is located 9 miles northwest of the survey area to the north of Chico (CDFW 2024).
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/_	Vernal pools, swales, and ephemeral freshwater habitat.	**Low**. Suitable vernal pool habitat occurs within the northeastern portion of the survey area (i.e., north of Skyway). However, this species was not detected during prior protocol-level wet- and dry-season surveys for federally listed large branchiopods (Gallaway 2018) within the portion of the survey area that contains vernal pool habitat. There are two CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 2009 and located 3.5 miles north of the survey area within vernal pool habitat (CDFW 2024).
Crotch's bumble bee *Bombus crotchii*	_/SC	Grassland and scrub habitats, nests in abandoned rodent burrows, occasionally nesting aboveground in tufts of grass, rock piles, or cavities in dead trees.	**Low**. Suitable grassland habitat with rodent burrows occurs within the survey area, particularly within annual grassland habitats. There is one CNDDB occurrence within 5 miles of the survey area. This occurrence is from 2020 and located 4.7 miles northwest of the survey area adjacent to a creek corridor and vernal pool habitat (CDFW 2024).
Monarch butterfly *Danaus plexippus*	FC/_	Breeds throughout lowlands of California where milkweed (Asclepias sp.) plants are present. Overwinters within trees (e.g., eucalyptus) along coastal California; forages on nectar-producing plants during migration	**Low**. Breeding habitat (milkweed) and overwintering habitat (trees along coastal California) are absent from the survey area. Suitable foraging habitat during migration (e.g., grasslands) is present is the survey area. There are no CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is located 101 miles southwest of the survey area in the San Francisco Bay Area (CDFW 2024).

Common and Scientific Name	Status Fed/State	Associated Habitats	Potential to Occur in the Survey Area
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT/_	Blue elderberry shrubs usually associated with riparian areas.	**Moderate**. A total of 19 blue elderberry shrubs were mapped in the survey area, five of which occur in the Project footprint. Elderberry shrubs within the Project footprint occur to the north of Comanche Creek along Cramer Lane and to the south of Comanche Creek to the north of Southgate Avenue (**Attachment A, Figure 6**). The largest stem of shrubs ranged from 1 to 5 inches in diameter. However, no VELB exit holes were observed. There are five CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 1995 and located 0.6 miles southeast of the survey area along Butte Creek (CDFW 2024).
Vernal pool tadpole shrimp *Lepidurus packardi*	FE/_	Vernal pools, swales, and ephemeral freshwater habitat.	**Low**. Suitable vernal pool habitat occurs within the northeastern portion of the survey area (i.e., north of Skyway). However, this species was not detected during prior protocol-level wet- and dry-season surveys for federally listed large branchiopods (Gallaway 2018) within the portion of the survey area that contains vernal pool habitat. There are seven CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 1993 and located 0.9 miles north of the survey area within vernal pool habitat (CDFW 2024).
Fish			
Steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT/_	Sacramento and San Joaquin Rivers and their tributaries.	**None**. Perennial riverine features within the survey area (i.e., Comanche Creek) do not provide habitat for salmonids. There are two CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 2008 and located 0.4 miles southeast of the survey area within Butte Creek (CDFW 2024).
Chinook salmon - Central Valley spring-run ESU *Oncorhynchus tshawytscha* pop. 11	FT/ST	Sacramento River and tributaries.	**None**. Perennial riverine features within the survey area (i.e., Comanche Creek) do not provide habitat for salmonids. There is one CNDDB occurrence within 5 miles of the survey area. This occurrence is from 2010 and located 1.3 miles east of the survey area within Butte Creek (CDFW 2024).

Common and Scientific Name	Status Fed/State	Associated Habitats	Potential to Occur in the Survey Area
Amphibians			
Foothill yellow-legged frog - north coast DPS *Rana boylii* pop. 1	_/SSC	Streams and rivers with rocky substrates and open, sunny banks, and sometimes isolated pools, vegetation backwaters, and deep, shaded spring-fed pools. Forests, chaparral, and woodlands.	**None**. Comanche Creek provides marginal habitat for this species. However, there are no records of this species from the Comanche Creek waterway. There are two CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 1978 and located 4.4 miles northeast of the survey area within Big Chico Creek (CDFW 2024). Lastly, the survey area is outside the range for this population.
Foothill yellow-legged frog - Feather River DPS *Rana boylii* pop. 2	FT/ST	Streams and rivers with rocky substrates and open, sunny banks, and sometimes isolated pools, vegetation backwaters, and deep, shaded spring-fed pools. Forests, chaparral, and woodlands.	**None**. Comanche Creek provides marginal habitat for this species. However, there are no records of this species from the Comanche Creek waterway. There are five CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 2020 and located 0.8 miles southeast of the survey area within Butte Creek (CDFW 2024).
Western spadefoot *Spea hammondii*	FPT/SSC	Grassland and woodland and vernal pools without aquatic predators for breeding.	**Low**. Suitable upland habitat (i.e., open grasslands) is present within the survey area. However, the majority of vernal pools present within the survey area are too ephemeral to support breeding. There are three CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 2016 and located 3.7 miles north of the survey area within vernal pool habitat (CDFW 2024).
Reptiles			
Western pond turtle *Emys marmorata*	FPT/SSC	Associated with permanent ponds, lakes, streams, and irrigation ditches or permanent pools along intermittent streams.	**Moderate**. Suitable aquatic habitat for this species occurs within Comanche Creek. Uplands surrounding Comanche Creek provide only marginal habitat due to their densely forested nature. There are two CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 2010 and located 0.2 miles north of the survey area within a perennial pond (CDFW 2024).
Giant garter snake *Thamnophis gigas*	FT/ST	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low-gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	**None**. The portion of Comanche Creek within the survey area does not provide suitable habitat since it is dominated by riparian vegetation with a dense overstory canopy. Butte Creek Diversion Channel is too intermittent to support this species. There are no CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is located 5.5 miles west of the survey area near Little Chico Creek (CDFW 2024).

Common and Scientific Name	Status Fed/State	Associated Habitats	Potential to Occur in the Survey Area
Birds			
Tricolored blackbird *Agelaius tricolor*	_/ST & SSC	Nests in dense blackberry, cattail, tules, willow, or wild rose within emergent wetlands throughout the Central Valley and foothills surrounding the valley.	**Low**. Marginal breeding habitat is present within blackberries and emergent vegetation associated with the portion of Butte Creek Diversion Channel north of Skyway. However, this area experiences frequent disturbance associated with the nearby busy road (Skyway), which separates the Project Footprint from potential breeding habitat. Suitable foraging habitat (grasslands) is present within the survey area. There is one CNDDB occurrence within 5 miles of the survey area. This occurrence is from 1983 and located 1.8 miles north of the survey area within a thistle bed (CDFW 2024).
Burrowing owl *Athene cunicularia*	_/SSC	Nests in burrows in the ground, often in old ground squirrel burrows or badger dens, within open dry grassland and desert habitat.	**Low**. Suitable habitat (open grasslands with California ground squirrels) is present in the survey area, particularly within the northeastern portion of the survey area (i.e., north of Skyway) and annual grassland habitats. There are two CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 2006 and located 0.8 miles north of the survey area within open grassland habitat (CDFW 2024).
Swainson's hawk *Buteo swainson'*	_/ST	Nests in isolated trees or riparian woodlands adjacent to suitable foraging habitat including grasslands or suitable grain or alfalfa fields, or livestock pastures.	**Low**. Suitable nesting habitat (isolated tree and riparian woodlands) and foraging habitat (grasslands and agriculture) are present within the survey area. However, a majority of these trees are located in highly disturbed areas (i.e., commercial or residential development, roadside). A single adult Swainson's hawk was observed soaring over the northeastern portion of the survey area during field surveys on April 10, 2023. There is one CNDDB occurrence within 5 miles of the survey area. This occurrence is from 1998 and located 1.5 miles southwest of the survey area and associated with a nest in an English walnut tree (CDFW 2024).
American peregrine falcon *Falco peregrinus anatum*	FD/SD & SFP	Woodland, forest and costal habitats including riparian and wetland areas. Requires bodies of water in open areas with cliffs and canyons nearby.	**None**. Suitable nesting habitat (i.e., cliffs and canyons) is absent from the survey area. Potential foraging habitat within the survey area (e.g., grasslands) is located too far away from potential nesting habitat that. There are two CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is non-specific, from 2014, and located 1.3 miles east of the survey area within a cliff surrounding by hardwood/conifer habitat (CDFW 2024).

Common and Scientific Name	Status Fed/State	Associated Habitats	Potential to Occur in the Survey Area
Bald eagle *Haliaeetus leucocephalus*	FD/SE & SFP	Lakes, rivers, estuaries, reservoirs, and some coastal habitats.	**None**. Suitable nesting habitat (e.g., mature trees near lakes and rivers) is absent from the survey area. Potential foraging habitat (e.g., perennial waterbodies) is limited to Comanche Creek which has too dense of a riparian canopy to allow bald eagle foraging. There is one CNDDB occurrence within 5 miles of the survey area. This occurrence is from 2007 and located 3.8 miles north of the survey area and represents a wintering site (CDFW 2024).
California black rail *Laterallus jamaicensis coturniculus*	_/ST & SFP	The majority of California Black Rails (>90%) are found in the tidal salt marshes of the northern San Francisco Bay region. Smaller populations occur in the freshwater marshes in the foothills of the Sierra Nevada, and in the Colorado River Area	**None**. The species is not known to occur on the Valley floor. Freshwater marsh habitat is limited to the areas associated with the Butte Creek Diversion Channel, which provides sub-marginal habitat. There are two CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 1994-2006 and located 4.4 miles east of the survey area within marsh habitat associated with Butte Creek (CDFW 2024).
Least Bell's vireo *Vireo bellii pusillus*	FE/SE	Historically nested in riparian habitat throughout the Central Valley, western Sierra Nevada, and coastal valley and foothills. The current breeding population now restricted to southern California with recent documentation of nesting on the San Joaquin River west of Modesto. Inhabits dense riparian vegetation for nesting and a dense, stratified canopy for foraging.	**None**. The current breeding population is restricted to southern California and San Joaquin Valley. There is one CNDDB occurrence within 5 miles of the survey area. This occurrence is from 1906 and located 1.0 miles northwest of the survey area near Big Chico Creek (CDFW 2024).
Migratory Birds and Raptors	Migratory Bird Treaty Act	Nest and forage in a variety of habitats including hardwood woodlands, coniferous forests, meadows, grasslands, riparian, and urban habitats.	**Present.** Migratory bird species observed in survey area. One killdeer (*Charadrius vociferus*) nest was observed in grassland habitat near Morrow Lane and a cliff swallow (*Petrochelidon pyrrhonota*) colony nest was observed under the bridge that passes over the Butte Creek Diversion Channel (CDFW 2024) (**Attachment A, Figure 6**).
Mammals			
Pallid bat *Antrozous pallidus*	_/SSC	Arid and semi-arid habitats; roosts in rock crevices, caves, and mine shafts.	**None**. Rock crevices, caves, and mine shafts are absent from the survey area. There is one CNDDB occurrence within 5 miles of the survey area. This occurrence is from 1992 and located 1.0 miles northwest of the survey area near the center of Chico (CDFW 2024).

Common and Scientific Name	Status Fed/State	Associated Habitats	Potential to Occur in the Survey Area
Western mastiff bat *Eumops perotis californicus*	_/SSC	Arid and semi-arid habitats, urban areas. Roosts in cliff faces, high buildings, trees, and tunnels. Nursery roosts most often occur in tight rock crevices or crevices in buildings.	**Low**. Cliff faces, high buildings, and tunnels are absent from the survey area. However, trees and crevices in buildings are present. There is one CNDDB occurrence within 5 miles of the survey area. This occurrence is from 1997 and located 2.7 miles south of the survey area near the center of Durham (CDFW 2024).

FE Federally Endangered
FT Federally Threatened
FPT Federally Proposed as Threatened
FC Federal Candidate Species
FD Federally Delisted
SE State Endangered
ST State Threatened
SC State Candidate
SD State Delisted
SSC State Species of Special Concern
SFP State Fully Protected

Results and Recommendations

Aquatic Resources

The Project would result in temporary and permanent impacts on regulated waters. A formal aquatic resource delineation report is being prepared for submission to the USACE. Impacts on Comanche Creek and Butte Creek Diversion Channel are not anticipated because the pipeline will be installed using the directional drilling method. Additionally, impacts on the two ephemeral streams along Cramer Lane are not anticipated because the pipeline would be installed in the existing roadway where the ephemeral streams pass under the road via culverts. However, avoidance of regulated waters does not appear possible due to the proposed culverting of the aquatic ditch located within the Project footprint, at the eastern terminus of Morrow Land and south of Skyway. Therefore, resource agency authorizations and permits are anticipated (e.g., USACE CWA Section 404 Nationwide Permit, Regional Water Quality Control Board CWA Section 401 Water Quality Certification, and CDFW Section 1602 Lake or Streambed Alteration Agreement) and compensatory mitigation may also be necessary.

Avoidance and Minimization Measures.

- Impacts (including fill, discharge or ground disturbance) on aquatic resources (wetlands or the bed, bank, and channel of waterways) are not authorized without prior agency approval.
- If possible, work should be conducted during the dry season (generally May 15–October 15). If it is not possible to perform work in the dry season, perform rainy season work during dry spells between rain events.
- Aquatic resources must be flagged in the field prior to the start of construction.
- Vehicle and equipment crossing of waterways must be limited to existing roads and crossings.
- A biologist must be onsite to monitor when boring beneath Comanche Creek and the Butte Creek Diversion Channel.

Sensitive Natural Communities and USFWS Critical Habitat

Valley Oak Woodland

The Project would permanently remove up to 0.84-acre of valley oak woodland habitat.

Avoidance and Minimization Measures.

- Removal and trimming of vegetation should be the minimum amount necessary to support the work.
- All vegetation work will be done with hand tools only. Chainsaws are OK. No mastication machines are allowed.
- No refueling of chainsaws is allowed off road without secondary containment.
- High visibility construction fencing will be installed between the construction area and adjacent valley oak woodland.

- If any active nests (nests with birds or eggs in them) are detected, safely stop work and contact the project biologist immediately.

Valley Oak Riparian Forest

The Project would permanently remove up to 0.17-acre of valley oak riparian forest. Because of its ecological association with waters of the state, the Project's effects on valley oak riparian forest will be regulated by CDFW and will be part of a Lake or Streambed Alteration Agreement.

Avoidance and Minimization Measures.

- All Avoidance and Minimization listed under Valley Oak Woodland would apply to Valley Oak Riparian Forest as well.
- Avoid placement of large rounds or limbs into a stream channel or wetland. All cut vegetation must be removed from the riparian area. If any pruned limbs fall into standing water, remove with pruning hooks to avoid stepping into water.
- Offroad access for vegetation work in riparian areas will be foot traffic only. No work will be conducted in the wetted active channel.

Vernal Pool Grassland Complex

Project activities will avoid direct impacts on vernal pool grassland complex because the Project Footprint is located approximately 80 to 130 feet south of the complex. Indirect impacts on vernal pool grassland complex habitat are not anticipated because the vernal pool grassland complex is located upslope and on the opposite side of Skyway from the Project Footprint.

USFWS Designated Critical Habitat

Designated USFWS Critical Habitats do not occur in the survey area. Therefore, no impacts on Critical Habitat are expected and no recommendations are provided.

Special-status Plants

Special-status plant surveys were seasonally timed to capture the identification periods of species that could occur in the survey area. The surveys included the project footprint and accessible portions of the survey area. If Project impacts are proposed to occur outside of the surveyed area, additional special-status plant species surveys may be required.

Thirty-one special-status plants have potential to occur within the survey area. One special-status plant species, shield-bracted monkeyflower (CRPR 4.3), was observed during the July 2023 survey. CRPR 4.3 species indicates that the plant is of limited distribution and not very threatened in California. Shield-bracted monkey flower is known to occur primarily in Yuba, Butte, and Tehama Counties where it can be locally common and therefore a population in its known range is not considered to be locally significant, rare, or unique in the context of CEQA. Therefore, no significant impacts on special-status plant species are anticipated, no additional special-status plant surveys are recommended, and no avoidance or minimization efforts are recommended.

Special-status Wildlife

Potential impacts on the 11 special-status wildlife species with potential to occur in the survey area are discussed below. Consultation with USFWS may be required for valley elderberry longhorn beetle and possibly western pond turtle. An Incidental Take Permit (ITP) for state-listed species is not anticipated because state-listed species will not likely be affected by the Project.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Project activities will avoid direct impacts on vernal pool fairy shrimp and vernal pool tadpole shrimp because the Project Footprint is located approximately 80 to 130 feet south of potential habitat (vernal pool grassland complex). Indirect impacts on vernal pool fairy shrimp and vernal pool tadpole shrimp are not anticipated because the potential habitat (vernal pool grassland complex) is located upslope and on the opposite side of Skyway from the Project Footprint. If the Project design changes such that direct and/or indirect impacts on vernal pool grassland complex cannot be avoided, then formal consultation with USFWS and mitigation for direct and/or indirect impacts on vernal pool fairy shrimp and vernal pool tadpole shrimp may be required. Otherwise, no additional recommendations are required.

Crotch's Bumble Bee and Monarch Butterfly

The Project will trench through existing roadways, which is not habitat for Crotch's bumble bee and monarch butterfly. However, smaller portions of the Project will trench through and directly affect habitat for Crotch's bumble bee and monarch butterfly, which consists of annual grassland, valley oak woodland, and grassland dominated portions of developed habitats within the survey area. Nonetheless, with the implementation of avoidance and minimization measures described below, no impacts on either species are expected.

Avoidance and Minimization Measures. To avoid and minimize potential impacts on Crotch's bumble bee and monarch butterfly, qualified biologists will conduct preconstruction surveys for host and food plants within 7 days prior to the establishment of staging areas and the start of ground-disturbing activities along new stretches of the alignment, as described below. Avoiding areas that support suitable habitat and host plants during Project construction would avoid effects on these species.

- A qualified biologist will survey for monarch butterfly host plants within a 20-foot buffer around the construction and staging area footprints. All milkweed species and locations will be mapped and inspected for the presence of monarch butterfly eggs or larvae. All milkweed species will be avoided to the extent feasible. If infeasible, and no adults are observed in the vicinity and no eggs or larvae are observed on the milkweed, the plants may be removed under the direct supervision of the biologist. If eggs or larvae are present, a minimum 10-foot avoidance buffer will be established around the occupied plants with flagging or fencing. The buffer will remain in place and the plants will not be removed until the biologist confirms that the eggs or larvae are no longer occupying the plants.
- A qualified biologist will conduct a preconstruction survey for monarch butterfly and Crotch's bumblebee food/nectar plants within a 20-foot buffer around the construction and staging area footprints. All nectar plants that are in bloom will be avoided to the extent feasible. If avoidance is infeasible, the plants will be removed within 7 days prior to construction in that portion of the alignment.

Valley Elderberry Longhorn Beetle

Of the 19 blue elderberry shrubs mapped in the survey area, 5 of occur in the Project Footprint, and may be directly affected, 3 are located less than 20 feet from the Project Footprint, 5 are located between 20 and 165 feet of the Project Footprint, and 6 are located greater than 165 feet from the Project Footprint. Elderberry shrubs within the Project Footprint occur to the north of Comanche Creek along Cramer Lane and to the south of Comanche Creek to the north of Southgate Avenue (Figure 6). The largest stem of shrubs ranged from 1 to 5 inches in diameter. However, no VELB exit holes were observed. There are five CNDDB occurrences within 5 miles of the survey area. The nearest CNDDB occurrence is from 1995 and located 0.6 mile southeast of the survey area along Butte Creek (CDFW 2024). With the implementation of avoidance and minimization measures described below, no impacts on 14 out of 19 of the mapped elderberry shrubs and therefore valley elderberry longhorn beetle are expected.

Avoidance and Minimization Measures. To avoid and minimize potential impacts on VELB, follow the avoidance and minimization measures from USFWS's (2017) *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* described below.

- **Avoidance Area**. Establish an avoidance area of at least 6 meters (20 feet) from the dripline of elderberry shrubs for all activities that may damage or kill an elderberry shrub (e.g., trenching, paving).
- **Timing**. As much as feasible, conduct all activities that could occur within 50 meters (165 feet) of an elderberry shrub outside of the flight season of the VELB (flight season is March–July).
- **Fencing.** Fence and/or flag all areas to be avoided during construction activities as close to construction limits as feasible.

Because impacts on five of the elderberry shrubs are unavoidable, formal consultation with USFWS and mitigation for impacts on valley elderberry longhorn beetle will be required.

Western Spadefoot

Project activities will avoid direct impacts on western spadefoot because the Project Footprint is located approximately 80 to 130 feet south of potential breeding habitat (vernal pool grassland complex). Additionally, most vernal pools within the survey area are too ephemeral to support breeding. Indirect impacts on western spadefoot are not anticipated because the potential breeding habitat (vernal pool grassland complex) is located upslope and on the opposite side of Skyway from the Project Footprint. If the Project design changes such that direct and/or indirect impacts on vernal pool grassland complex cannot be avoided, then direct and/or indirect impacts on western spadefoot may occur. Otherwise, no additional recommendations are required.

Western Pond Turtle

The Project will primarily trench through existing roadways, which are not habitat for western pond turtle. However, smaller portions of the Project will trench through and directly affect habitat for western pond turtle, which consists of suitable annual grassland, valley okay riparian forest, valley oak woodland, and grassland dominated portions of developed habitats within 500 meters of suitable aquatic habitat (only Comanche Creek within the survey area) (Thomson et al. 2016). However, with the implementation of avoidance and minimization measures described below, no impacts on this species are expected.

Avoidance and Minimization Measures. To avoid and minimize potential impacts on western pond turtle, the following avoidance and minimization measures are recommended.

- **Avoidance Area.** Avoid nearby creeks (Comanche Creek) and other water features or wet areas while accessing the worksite and completing work.
- **Vehicle Check**. Prior to moving vehicles and equipment, have all personnel check underneath for western pond turtle.
- **Handling**. If a western pond turtle is encountered during work, safely halt all work and contact the Project Biologist for guidance. Allow the western pond turtle to leave the site on its own volition and take care not to harm the species. Do not allow wildlife species to be handled and/or removed from the site by anyone except for a qualified biologist.

Because Project trenching will occur through potential habitat for western pond turtle, informal or formal consultation with USFWS and mitigation will be required.

Tricolored Blackbird

Marginal breeding habitat is present within blackberries and emergent vegetation associated with the portion of Butte Creek Diversion Channel north of Skyway. However, this area experiences frequent disturbance associated with the nearby busy road (Skyway), which separates the Project Footprint from potential breeding habitat by approximately 100 feet. Due to the distance between the Project Footprint and potential breeding habitat and the presence of Skyway as an ongoing disturbance barrier, no impacts on tricolored blackbird are expected, and no further recommendations are provided (CDFW 2015).

Burrowing Owl

The Project will primarily trench through existing roadways, which are not habitat for burrowing owl. However, smaller portions of the Project will trench through and directly affect habitat for burrowing owl, which consists of suitable annual grassland and grassland dominated portions of developed habitats. However, with the implementation of avoidance and minimization measures described below, no impacts on this species are expected.

Avoidance and Minimization Measures. To avoid and minimize potential impacts on burrowing owl, follow the avoidance and minimization measures from CDFW's (2012) *Staff Report on Burrowing Owl Mitigation*, described below and the nesting bird measures below under "Bats and Migratory Birds and Raptors."

- If Project activities occur during the breeding season for burrowing owl (generally February to August), a qualified biologist will conduct a preconstruction survey for burrowing owls nesting sites within 7 days prior to the start of construction activities (including equipment staging). The preconstruction survey will be conducted within suitable habitat within 150 meters from the Project work limits. For surveys in inaccessible areas, the surveying biologist will use binoculars to scan any suitable nesting sites. If no active nests are found during the preconstruction surveys, then no additional measures are required.
- If an active burrowing owl nest is identified within the construction work area or within 150 meters from the construction work area, a no disturbance buffer will be established around the nest to avoid disturbance of the nest until a qualified biologist determines that the young have fledged (typically 50 to 500 meters depending on the time of year and level of disturbance). The

extent of these buffers will be determined by the biologist and will depend on the species identified, level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

- In addition to the establishment of buffers, other avoidance measures may include monitoring of the nest during construction and restricting the type of work that can be conducted near the nest site.

Swainson's Hawk

The Project will primarily trench through existing roadways, which are not habitat for Swainson's hawk. However, smaller portions of the Project will trench through and directly affect habitat for Swainson's hawk. Swainson's hawk has potential to nest within valley oak woodland, valley oak riparian forest, and isolated trees within grassland and developed habitats. Swainson's hawk has potential to forage within grassland and agriculture habitats within the survey area. However, with the implementation of avoidance and minimization measures described below, no impacts on this species are expected.

Avoidance and Minimization Measures. To avoid and minimize potential impacts on Swainson's hawk, follow the avoidance and minimization measures from Swainson's Hawk Technical Advisory Committee's (2000) *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* and the nesting bird measures below under "Bats and Migratory Birds and Raptors."

- If Project activities occur during the breeding season for Swainson's hawk (generally March to July), a qualified biologist will conduct a preconstruction survey for Swainson's hawk nesting sites within 7 days prior to the start of construction activities (including equipment staging). The preconstruction survey will be conducted within suitable habitat within 0.5 mile from the Project work limits. For surveys in inaccessible areas, the surveying biologist will use binoculars to scan any suitable nesting sites. If no active nests are found during the preconstruction surveys, then no additional measures are required.
- If an active Swainson's hawk nest is identified within the construction work area or within 0.5 mile from the construction work area, a no disturbance buffer will be established around the nest to avoid disturbance of the nesting birds or raptors until a qualified biologist determines that the young have fledged (typically 50 to 200 yards depending on the state of the nest and level of disturbance). The extent of these buffers will be determined by the biologist and will depend on the species identified, level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.
- In addition to the establishment of buffers, other avoidance measures may include monitoring of the nest during construction and restricting the type of work that can be conducted near the nest site.

Western Mastiff Bat

The Project will primarily trench through existing roadways, which are not habitat for western mastiff bat. However, smaller portions of the Project will trench through and directly affect habitat for western mastiff bat. Western mastiff bat has potential to roost within valley oak woodland, valley

oak riparian forest, and isolated trees and buildings within grassland and developed habitats within the survey area. However, with the implementation of avoidance and minimization measures described below, no impacts on this species are expected.

Avoidance and Minimization Measures. The preconstruction surveys for roosting bats (described below) should avoid and minimize potential impacts on Western mastiff bat.

Bats and Migratory Birds and Raptors

The Project will primarily trench through existing roadways, which are not habitat for bats and migratory birds and raptors. However, smaller portions of the Project will trench through and directly affect habitat for bats and migratory birds and raptors. Bats and migratory birds and raptors has potential to roost within valley oak woodland, valley oak riparian forest, and isolated trees and buildings within grassland and developed habitats within the survey area. However, with the implementation of avoidance and minimization measures described below, no impacts on bats and migratory birds and raptors are expected.

Avoidance and Minimization Measures. To avoid and minimize impacts on bats and migratory birds and raptors, implement the following avoidance and minimization measures.

- **Nesting Birds**. If vegetation removal or ground disturbance occurs during the nesting season (i.e., February 1 to August 31), arrange for a qualified biologist to conduct a preconstruction survey no more than 30 days prior to construction activities to locate potential nests of protected bird species and establish a no disturbance buffer zone around the nest. In particular, the Skyway bridge that passes over the Butte Creek Diversion Channel supports a nesting cliff swallow colony.
- **Roosting Bats**. If vegetation removal or ground disturbance occurs during the maternity season (March 1 to September 14) or the overwintering season (November 1 to February 28), arrange for a qualified biologist to conduct a preconstruction survey no more than 30 days prior to construction activities to locate potential roosts of protected bat species and establish a no disturbance buffer zone around the roost.

Protected Trees

Project construction activities are anticipated to occur entirely within existing City rights-of-way (ROW) and, therefore, the local tree ordinance does not apply to the Project. If the Project design changes to result in impacts on trees outside of City ROW, trees should be assessed for potential protection under the local tree ordinances. Table 5 summarizes the proposed impacted on trees within the 6-foot width that Project related trenching is anticipated. Tree species identification is tentative.

Table 5. Project proposed impacts on trees with a DBH greater than four inches

ID	Proposed Impact	Species	Latitude	Longitude	Location
1	Critical Root Zone	Valley oak	39.707044	-121.78715	Comanche Creek
2	Critical Root Zone	Valley oak	39.704585	-121.7872	Southern portion of the survey area
3	Remove Tree	Valley oak	39.704938	-121.78903	
4	Remove Tree	California Walnut	39.704914	-121.78884	

ID	Proposed Impact	Species	Latitude	Longitude	Location
5	Remove Tree	California Walnut	39.704904	-121.78879	
6	Remove Tree	Valley oak	39.704838	-121.78847	
7	Remove Tree	Valley oak	39.704818	-121.78838	
8	Remove Tree	Valley oak	39.704766	-121.78811	
9	Remove Tree	Valley oak	39.704726	-121.78798	
10	Remove Tree	Valley oak	39.704726	-121.78798	
11	Remove Tree	Valley oak	39.704688	-121.78773	
12	Remove Tree	Valley oak	39.704677	-121.7877	
13	Remove Tree	Valley oak	39.704677	-121.7877	
14	Remove Tree	Valley oak	39.704641	-121.7876	
15	Remove Tree	Valley oak	39.704585	-121.7872	
16	Remove Tree	Valley oak	39.70468	-121.78769	

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Attachment A: Figures

List of Figures

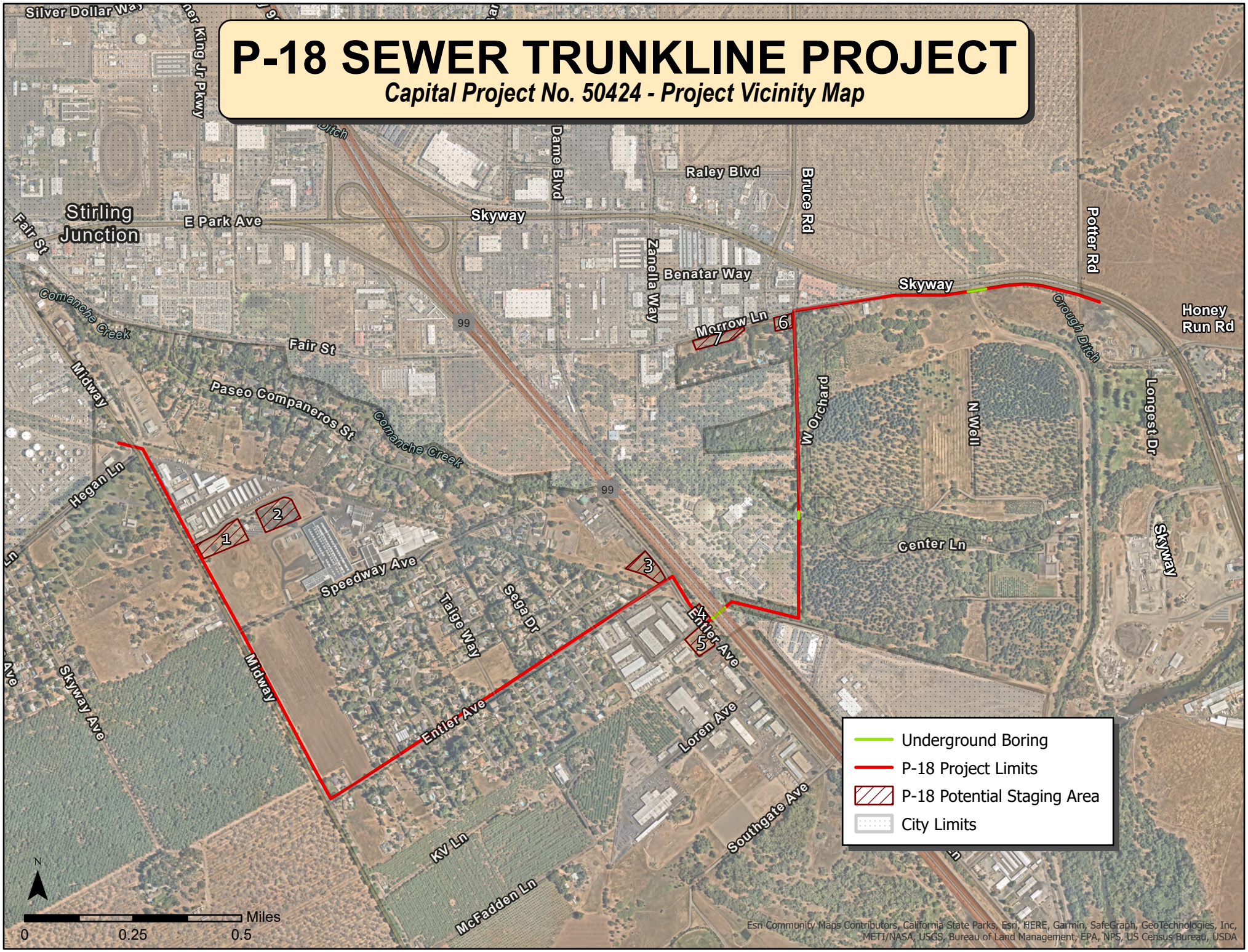
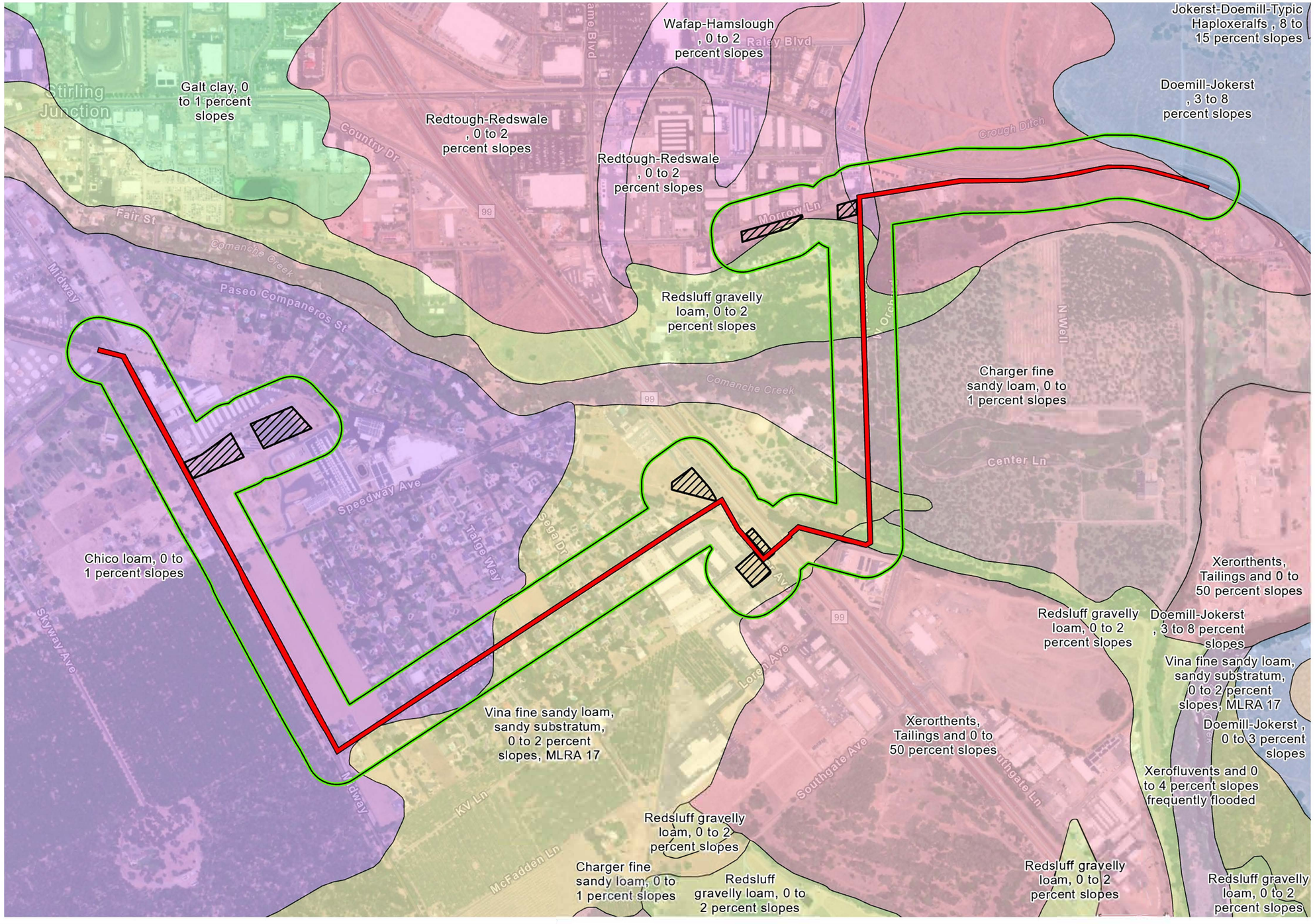


Figure 1. Project Vicinity



Legend

- P-18 Sewer Trunk Line
- Staging Areas
- Biological Study Area (250 ft buffer)

Soils

- Charger fine sandy loam, 0 to 1 percent slopes
- Chico loam, 0 to 1 percent slopes
- Doemill-Jokerst , 0 to 3 percent slopes
- Doemill-Jokerst , 3 to 8 percent slopes
- Galt clay, 0 to 1 percent slopes
- Jokerst-Doemill-Typic Haploxeralfs , 8 to 15 percent slopes
- Redsluff gravelly loam, 0 to 2 percent slopes
- Redtough-Redswale , 0 to 2 percent slopes
- Vina fine sandy loam, sandy substratum, 0 to 2 percent slopes, MLRA 17
- Wafap-Hamslough , 0 to 2 percent slopes
- Xerofluvents and 0 to 4 percent slopes frequently flooded
- Xerorthents, Tailings and 0 to 50 percent slopes

Source: ESRI 2023, City of Chico 2023, USFWS 2022

N

0 250 500 1,000 Feet

1:10,000

Figure 2. Soils
Chico P-18 Sewer Trunkline

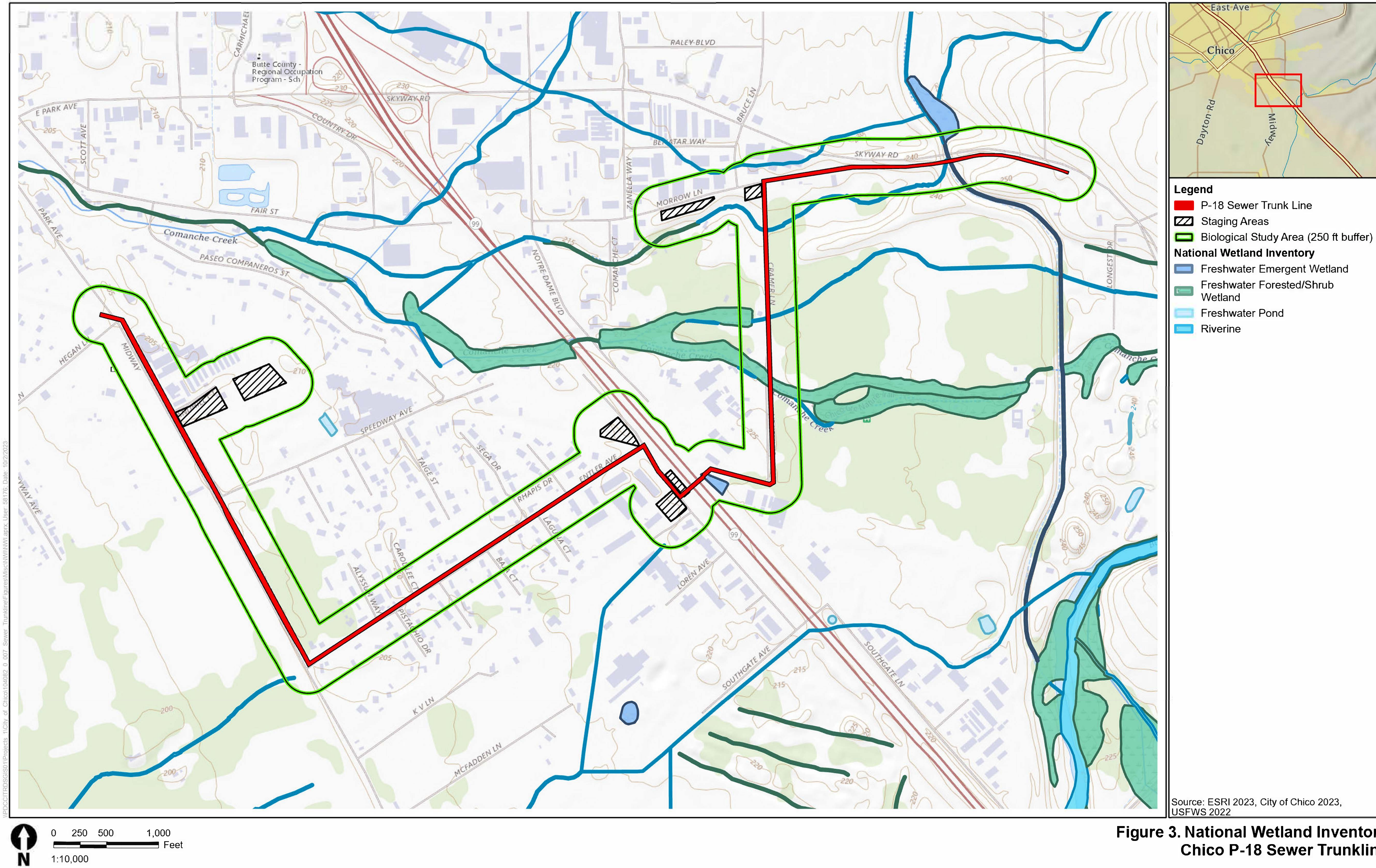
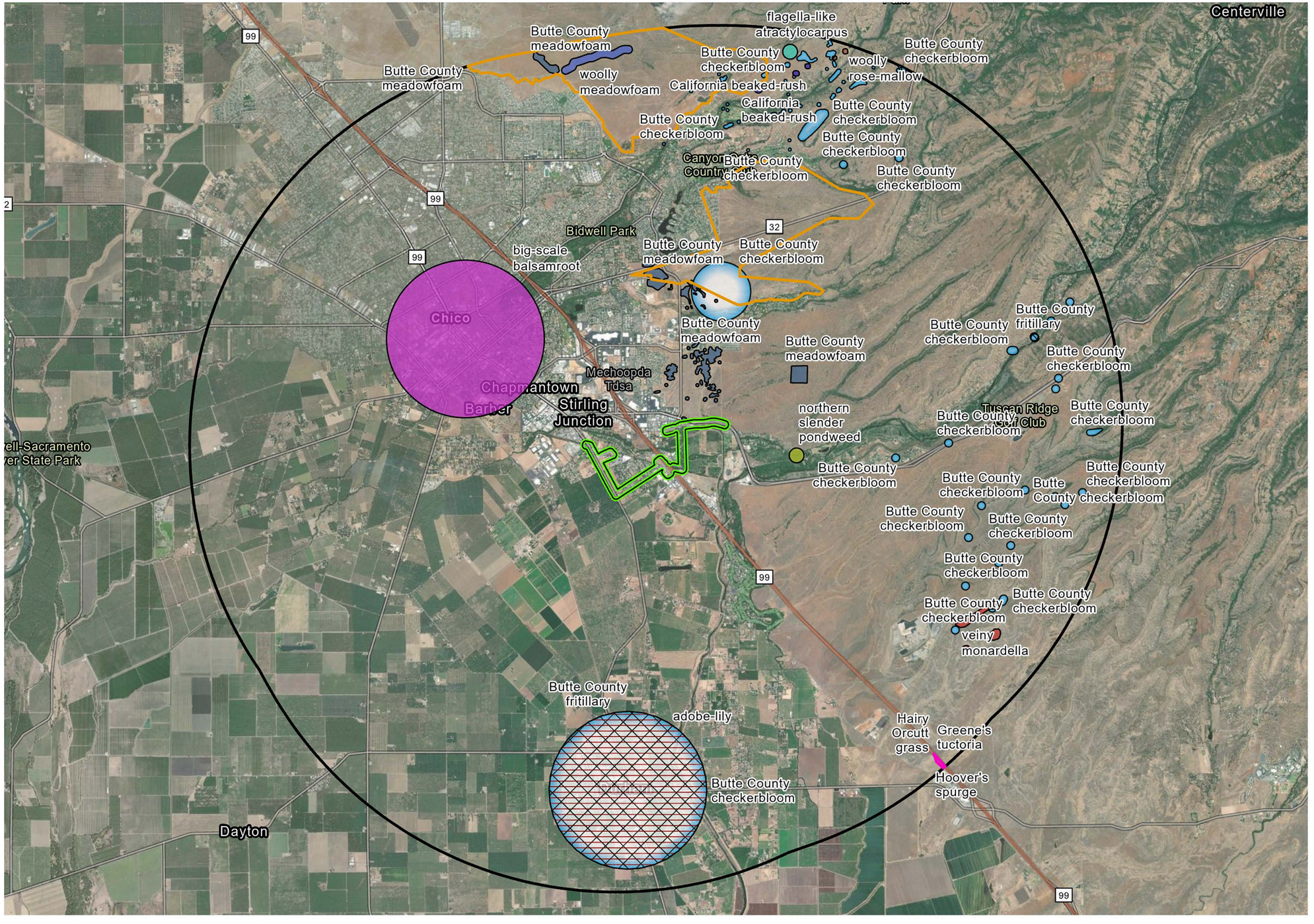
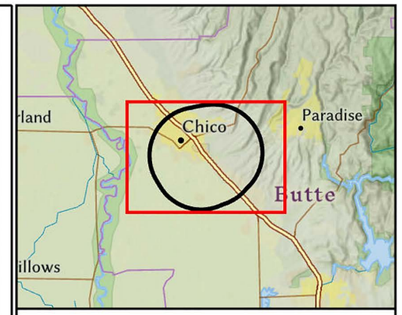

East Ave
Chico
Dayton Rd
Midway
Legend
P-18 Sewer Trunk Line
Staging Areas
Biological Study Area (250 ft buffer)
National Wetland Inventory
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine
Source: ESRI 2023, City of Chico 2023, USFWS 2022
Butte County - Regional Occupation Program - Sch
RALEY BLVD
SKYWAY RD
E PARK AVE
SCOTT AVE
COUNTRY DR
FAIR ST
PARK AVE
Comanche Creek
PASEO COMPANEROS ST
NOTRE DAME BLVD
ZANELLA WAY
MORROW LN
BRUCE LN
COMANCHE CT
CRAMER LN
LONGEST DR
HEGAN LN
MIDWAY
SPEEDWAY AVE
SEGA DR
TAIGE ST
ENTLER AVE
RHAPIS DR
LAGUNA CT
CAROL LEE CT
ALYSSUM WAY
PISTACHIO DR
LOREN AVE
SOUTHGATE AVE
SOUTHGATE LN
K V LN
MCFADDEN LN
0 250 500 1,000
Feet
1:10,000
N

Figure 3. National Wetland Inventory
Chico P-18 Sewer Trunkline





Legend

- Biological Study Area
- CNDDB 5 Mile Buffer

CNDDB Plants

- Butte County checkerbloom
- Butte County fritillary
- Butte County meadowfoam
- California beaked-rush
- adobe-lily
- big-scale balsamroot
- flagella-like atractylocarpus
- northern slender pondweed
- veiny monardella
- woolly meadowfoam
- woolly rose-mallow

Critical Habitat Plants

- Butte County meadowfoam
- Greene's tuctoria
- Hairy Orcutt grass
- Hoover's spurge

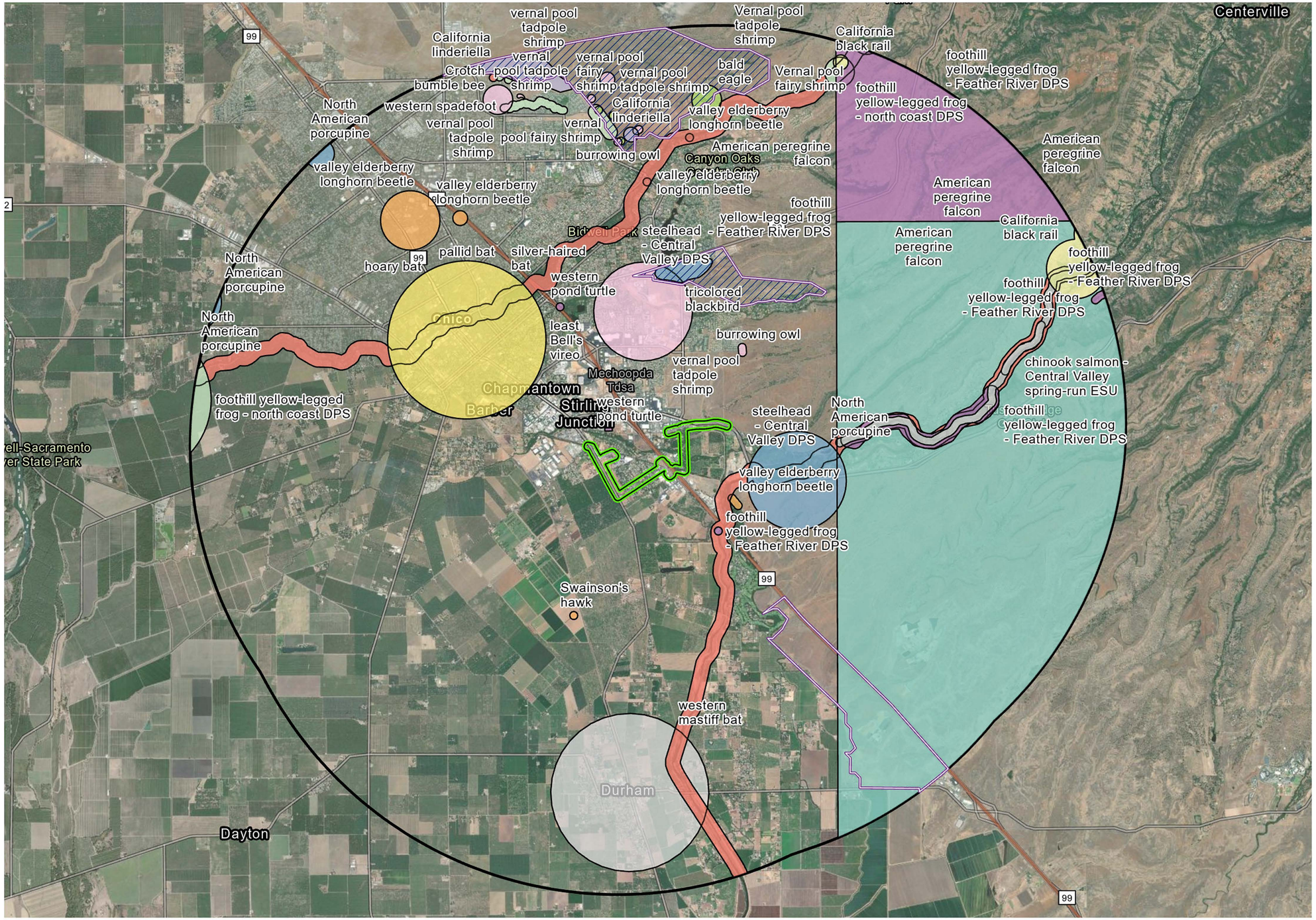
Source: ESRI 2023, City of Chico 2023

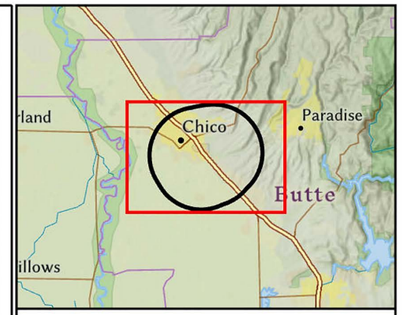
N

0 1 2 Miles

1:80,000

Figure 4. CNDDB Plants and Plant Critical Habitat
Chico P-18 Sewer Trunkline





Legend

- Biological Study Area
- CNDDB 5 Mile Buffer

CNDDB Wildlife

- American peregrine falcon
- California black rail
- California linderiella
- Crotch bumble bee
- North American porcupine
- Swainson's hawk
- bald eagle
- burrowing owl
- chinook salmon - Central Valley spring-run ESU
- foothill yellow-legged frog - Feather River DPS
- foothill yellow-legged frog - north coast DPS
- hoary bat
- least Bell's vireo
- pallid bat
- silver-haired bat
- steelhead - Central Valley DPS
- tricolored blackbird
- valley elderberry longhorn beetle
- vernal pool fairy shrimp
- vernal pool tadpole shrimp
- western mastiff bat
- western pond turtle
- western spadefoot

Critical Habitat Wildlife

- Vernal pool fairy shrimp
- Vernal pool tadpole shrimp

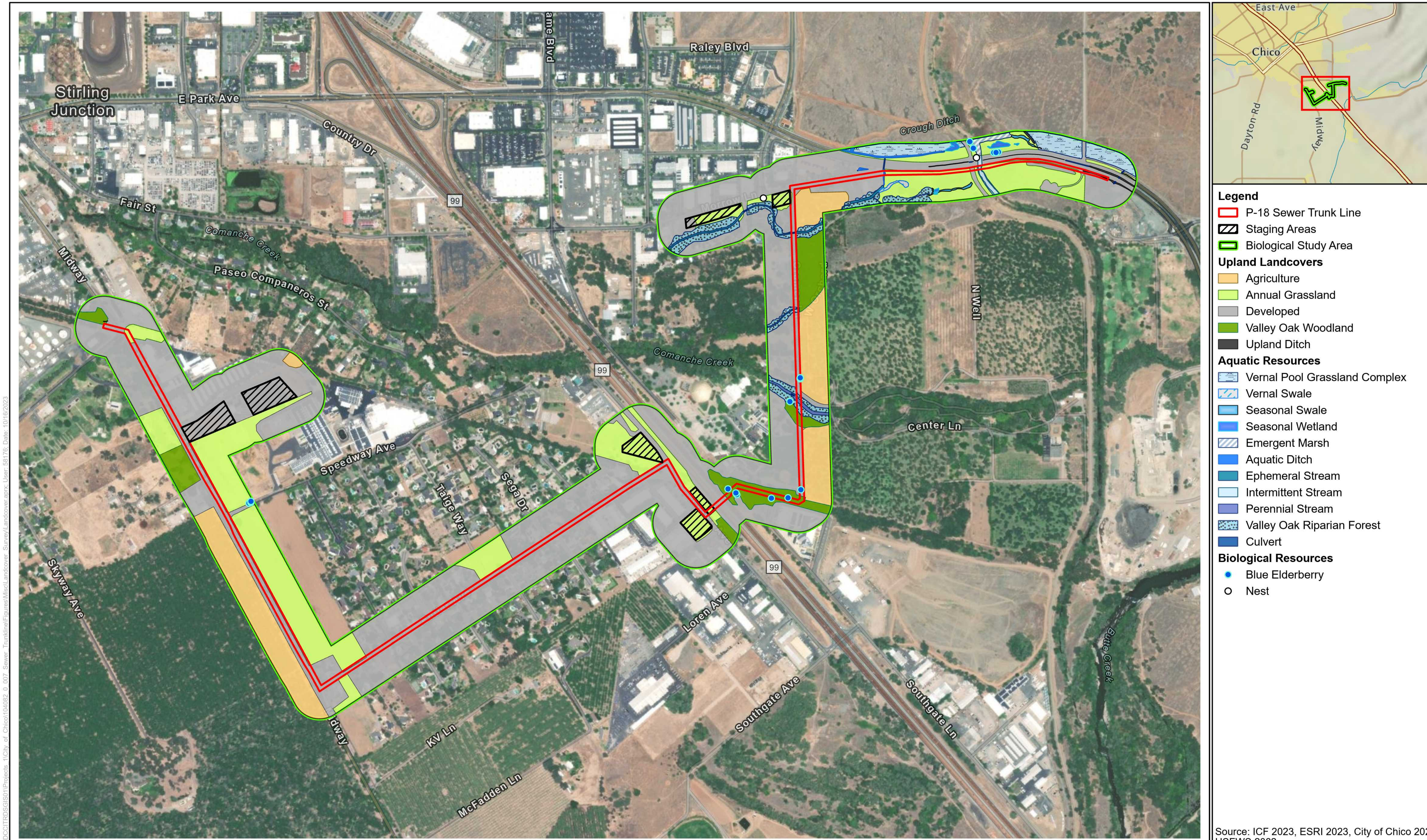
Source: ESRI 2023, City of Chico 2023

N

0 1 2 Miles

1:80,000

Figure 5. CNDDB Animals and Wildlife Critical Habitat
Chico P-18 Sewer Trunkline



Stirling Junction
E Park Ave
Country Dr
Raley Blvd
Crough Ditch
Fair St
Comanche Creek
Paseo Companeros St
Midway
Speedway Ave
Taige Way
Sega Dr
Comanche Creek
Center Ln
N Well
Loren Ave
Skyway Ave
KV Ln
McFadden Ln
Southgate Ave
Southgate Ln
Butte Creek
99
East Ave
Chico
Dayton Rd
Midway
Legend
P-18 Sewer Trunk Line
Staging Areas
Biological Study Area
Upland Landcovers
Agriculture
Annual Grassland
Developed
Valley Oak Woodland
Upland Ditch
Aquatic Resources
Vernal Pool Grassland Complex
Vernal Swale
Seasonal Swale
Seasonal Wetland
Emergent Marsh
Aquatic Ditch
Ephemeral Stream
Intermittent Stream
Perennial Stream
Valley Oak Riparian Forest
Culvert
Biological Resources
Blue Elderberry
Nest
Source: ICF 2023, ESRI 2023, City of Chico 2023, USFWS 2022

N
0 250 500 1,000 Feet
1:10,000

Figure 6. Biological Resources in the Survey Area
Chico P-18 Sewer Trunkline

Attachment B: Special-Status Species Database Query Results

- CNDDB [B1]
- CNPS RPI [B2]
- USFWS IPaC [B3]

OBJECTID	SNAME	CNAME	ELMCODE	OCCNUMBER	MAPNDX	EONDX	KEYQUAD	KQUADNAME	KEYCOUNTY	PLSS	ELEVATION	PARTS	ELMTYPE	TAXONGROUP	EOCOUNT	ACCURACY	PRESENCE
1	Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	45	60986	91038	3912167	Chico	BUT	T22N, R01E, Sec. 26 (M)	0	1	1	Dicots	5	1 mile	Presumed Extant
2	Fritillaria pluriflora	adobe-lily	PMLIL0V0F0	33	25716	45337	3912167	Chico	BUT	T21N, R02E, Sec. 24 (M)	155	1	1	Monocots	4	1 mile	Presumed Extant
3	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	11	25716	51449	3912167	Chico	BUT	T21N, R02E, Sec. 24 (M)	0	1	1	Dicots	4	1 mile	Possibly Extirpated
4	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	48	25716	5698	3912167	Chico	BUT	T21N, R02E, Sec. 24 (M)	160	1	1	Monocots	4	1 mile	Possibly Extirpated
5	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	15	10790	20697	3912167	Chico	BUT	T22N, R02E, Sec. 29 (M)	300	1	1	Dicots	1	2/5 mile	Presumed Extant
6	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	27	51453	51453	3912176	Paradise West	BUT	T22N, R02E, Sec. 10 (M)	500	83	1	Dicots	1	specific area	Presumed Extant
7	Limnanthes floccosa ssp. californica	Butte County meadowfoam	PDLIM02042	20	10763	19817	3912167	Chico	BUT	T22N, R02E, Sec. 32, W (M)	250	21	1	Dicots	1	specific area	Presumed Extant
8	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	PDLIM02043	4	37166	32163	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 12, NE (M)	280	1	1	Dicots	1	specific area	Presumed Extant
9	Limnanthes floccosa ssp. californica	Butte County meadowfoam	PDLIM02042	7	10755	9240	3912167	Chico	BUT	T22N, R02E, Sec. 30, NE (M)	269	11	1	Dicots	1	specific area	Presumed Extant
10	Monardella venosa	veiny monardella	PDLAM18082	5	21634	8448	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 14, E (M)	270	3	1	Dicots	1	specific area	Presumed Extant
11	Limnanthes floccosa ssp. californica	Butte County meadowfoam	PDLIM02042	35	20286	19366	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 12, NW (M)	245	2	1	Dicots	1	specific area	Presumed Extant
12	Limnanthes floccosa ssp. californica	Butte County meadowfoam	PDLIM02042	51	83343	84355	3912167	Chico	BUT	T22N, R02E, Sec. 33, N (M)	445	1	1	Dicots	1	non-specific area	Presumed Extant
13	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	3	83694	20707	3912166	Hamlin Canyon	BUT	T22N, R02E, Sec. 25 (M)	350	4	1	Dicots	1	specific area	Presumed Extant
14	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	28	51460	51460	3912176	Paradise West	BUT	T22N, R02E, Sec. 10, NE (M)	1250	6	1	Dicots	1	specific area	Presumed Extant
15	Campylopodiella stenocarpa	flagella-like atractylocarpus	NBMUS84010	2	69545	70323	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 09, NW (M)	941	1	1	Bryophytes	1	1/10 mile	Presumed Extant
16	Stuckenia filiformis ssp. alpina	northern slender pondweed	PMPOT03091	19	73372	74342	3912167	Chico	BUT	T21N, R02E, Sec. 04, NW (M)	260	1	1	Monocots	1	1/10 mile	Presumed Extant
17	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	36	84093	85120	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 01, SE (M)	700	3	1	Dicots	1	specific area	Presumed Extant
18	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	33	84090	85114	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 13, NW (M)	300	2	1	Dicots	1	specific area	Presumed Extant
19	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	6	10918	20704	3912166	Hamlin Canyon	BUT	T22N, R02E, Sec. 36, E (M)	900	2	1	Dicots	1	specific area	Presumed Extant
20	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	41	84371	85401	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 12, W (M)	500	2	1	Dicots	1	specific area	Presumed Extant
21	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	2	10956	20706	3912166	Hamlin Canyon	BUT	T21N, R03E, Sec. 06, NW (M)	700	1	1	Dicots	1	specific area	Presumed Extant
22	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	14	10799	20702	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 8, S (M)	500	5	1	Dicots	1	specific area	Presumed Extant
23	Rhynchospora californica	California beaked-rush	PMCYP0N060	8	30551	4460	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 09, NE (M)	500	2	1	Monocots	1	specific area	Presumed Extant
24	Rhynchospora californica	California beaked-rush	PMCYP0N060	11	55688	55704	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 9, SW (M)	380	1	1	Monocots	1	80 meters	Presumed Extant
25	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	47	B3282	115197	3912176	Paradise West	BUT	T22N, R02E, Sec. 15, SE (M)	1000	1	1	Dicots	1	80 meters	Presumed Extant
26	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	5	10871	20701	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 03, NE (M)	540	1	1	Dicots	1	80 meters	Presumed Extant
27	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	40	84369	85399	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 11, NE (M)	350	1	1	Dicots	1	80 meters	Presumed Extant
28	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	39	84368	85398	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 02, SE (M)	400	1	1	Dicots	1	80 meters	Presumed Extant
29	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	42	84372	85402	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 11, SE (M)	400	1	1	Dicots	1	80 meters	Presumed Extant
30	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	26	51452	51452	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 14, SW (M)	250	1	1	Dicots	1	80 meters	Presumed Extant
31	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	44	84374	85404	3912176	Paradise West	BUT	T22N, R02E, Sec. 15, SW (M)	700	1	1	Dicots	1	80 meters	Presumed Extant
32	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	38	84367	85397	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 01, SW (M)	450	1	1	Dicots	1	80 meters	Presumed Extant
33	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	37	84366	85396	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 02, NW (M)	600	1	1	Dicots	1	80 meters	Presumed Extant
34	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	49	25715	22314	3912166	Hamlin Canyon	BUT	T22N, R02E, Sec. 25, SE (M)	350	1	1	Monocots	1	80 meters	Presumed Extant
35	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	PDMAL0H0R 3	123	31192	3219	3912176	Paradise West	BUT	T22N, R02E, Sec. 10, NW (M)	500	2	1	Dicots	1	specific area	Presumed Extant
36	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	49	B3284	115199	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 17, E (M)	385	1	1	Dicots	1	specific area	Presumed Extant
37	Sidalcea robusta	Butte County checkerbloom	PDMAL110P0	50	B3285	115200	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 18, NE (M)	280	1	1	Dicots	1	specific area	Presumed Extant

OBJECTID	SNAME	CNAME	OCCTYPE	OCCRANK	SENSITIVE	SITEDATE	ELMDATE	OWNERMGT	FEDLIST	CALLIST	GRANK	SRANK	RPLANTRANK	CDFWSTATUS	OTHRSTATUS
1	Balsamorhiza macrolepis	big-scale balsamroot	Natural/Native occurrence	Unknown	N	XXXXXXXX	XXXXXXXX	UNKNOWN	None	None	G2	S2	1B.2		BLM_S; USFS_S
2	Fritillaria pluriflora	adobe-lily	Natural/Native occurrence	Unknown	N	193503XX	193503XX	CITY OF DURHAM, UNKNOWN	None	None	G2G3	S2S3	1B.2		BLM_S; SB_CalBG/RSABG; SB_UCBG
3	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	None	N	19740630	19340508	UNKNOWN	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
4	Fritillaria eastwoodiae	Butte County fritillary	Natural/Native occurrence	None	N	193505XX	193505XX	CITY OF DURHAM, UNKNOWN	None	None	G3Q	S3	3.2		USFS_S
5	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	2003XXXX	1981XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
6	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Excellent	N	20190601	20190601	CITY OF CHICO, PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
7	Limnanthes floccosa ssp. californica	Butte County meadowfoam	Natural/Native occurrence	Good	N	20220312	20220312	PVT, CITY OF CHICO	Endangered	Endangered	G4T1	S1	1B.1		SB_CalBG/RSABG
8	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	Natural/Native occurrence	Unknown	N	19910331	19910331	UNKNOWN	None	None	G4T4	S3	4.2		SB_UCBG
9	Limnanthes floccosa ssp. californica	Butte County meadowfoam	Natural/Native occurrence	Good	N	20210404	20210404	PVT, CITY OF CHICO	Endangered	Endangered	G4T1	S1	1B.1		SB_CalBG/RSABG
10	Monardella venosa	veiny monardella	Natural/Native occurrence	Good	N	19920510	19920510	PVT	None	None	G1	S1	1B.1		SB_CalBG/RSABG; SB_UCBG
11	Limnanthes floccosa ssp. californica	Butte County meadowfoam	Natural/Native occurrence	Good	N	20080327	20080327	CITY OF CHICO	Endangered	Endangered	G4T1	S1	1B.1		SB_CalBG/RSABG
12	Limnanthes floccosa ssp. californica	Butte County meadowfoam	Natural/Native occurrence	Unknown	N	20100324	20100324	PVT	Endangered	Endangered	G4T1	S1	1B.1		SB_CalBG/RSABG
13	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Good	N	20050601	20050601	PVT, BLM, BUT COUNTY	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
14	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Good	N	20190523	20190523	CITY OF CHICO	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
15	Campylopodiella stenocarpa	flagella-like atractylocarpus	Natural/Native occurrence	Unknown	N	20010115	20010115	CITY OF CHICO	None	None	G5	S1?	2B.2		
16	Stuckenia filiformis ssp. alpina	northern slender pondweed	Natural/Native occurrence	Unknown	N	19870525	19870525	DPR-BUTTE CREEK CANYON ER?	None	None	G5T5	S2S3	2B.2		
17	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	1991XXXX	1991XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
18	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	20060524	20060524	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
19	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Good	N	19890620	19890620	PVT, BLM	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
20	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	1991XXXX	1991XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
21	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Excellent	N	19910613	19910613	BLM	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
22	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Good	N	20190517	20190517	CITY OF CHICO	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
23	Rhynchospora californica	California beaked-rush	Natural/Native occurrence	Unknown	N	20020627	20020627	CITY OF CHICO	None	None	G1	S1	1B.1		SB_UCSC
24	Rhynchospora californica	California beaked-rush	Natural/Native occurrence	Good	N	20120901	20120901	CITY OF CHICO	None	None	G1	S1	1B.1		SB_UCSC
25	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	20180310	20180310	UNKNOWN	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
26	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	1990XXXX	1990XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
27	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	1991XXXX	1991XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
28	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	1991XXXX	1991XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
29	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	1991XXXX	1991XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
30	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Fair	N	2004XXXX	2004XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
31	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	2004XXXX	2004XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
32	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	1991XXXX	1991XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
33	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	1990XXXX	1990XXXX	PVT	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
34	Fritillaria eastwoodiae	Butte County fritillary	Natural/Native occurrence	Unknown	N	19760316	19760316	UNKNOWN	None	None	G3Q	S3	3.2		USFS_S
35	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Natural/Native occurrence	Good	N	20020806	20020806	CITY OF CHICO	None	None	G5T3	S3	1B.2		SB_CalBG/RSABG; SB_UCBG
36	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	20190126	20190126	UNKNOWN	None	None	G2	S2	1B.2		BLM_S; SB_UCSC
37	Sidalcea robusta	Butte County checkerbloom	Natural/Native occurrence	Unknown	N	20180415	20180415	CITY OF CHICO	None	None	G2	S2	1B.2		BLM_S; SB_UCSC

OBJECTID	SNAME	CNAME	LOCATION	LOCDETAILS
1	Balsamorhiza macrolepis	big-scale balsamroot	RANCHO CHICO.	EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB IN THE GENERAL VICINITY OF CHICO.
2	Fritillaria pluriflora	adobe-lily	NEAR DURHAM.	EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE VICINITY OF DURHAM.
3	Sidalcea robusta	Butte County checkerbloom	DURHAM.	
4	Fritillaria eastwoodiae	Butte County fritillary	NEAR DURHAM (SOUTH OF CHICO).	
5	Sidalcea robusta	Butte County checkerbloom	EAST OF THE JUNCTION OF STILSON CANYON ROAD AND HUMBOLDT ROAD, EAST END OF CHICO.	MAPPED BY CNDDB ACCORDING TO TRS INFORMATION PROVIDED BY SCHLISING IN THE CENTER OF THE NORTH 1/2 OF SECTION 29.
6	Sidalcea robusta	Butte County checkerbloom	BIDWELL PARK, ALONG BIG CHICO CREEK.	MAPPED BY CNDDB AS MANY SCATTERED POLYGONS BASED ON MANY SOURCES OF INFORMATION. POLYGON IN THE NW 1/4 OF SECTION 3 IS NON-SPECIFIC AND BASED ON A 1991 JANEWAY COLLECTION FROM ALONG NORTH RIM TRAIL IN THE SE 1/4 NW 1/4
7	Limnanthes floccosa ssp. californica	Butte County meadowfoam	ON BOTH SIDES OF BRUCE ROAD, FROM THE SKYWAY TO JUST NORTH OF EAST 20TH STREET, SOUTHEAST EDGE OF CHICO.	MAPPED BY CNDDB AS SEVERAL POLYGONS, PRIMARILY IN THE NE 1/4 OF SECTION 31 AND THE NW 1/4 OF SECTION 32. SITES KNOWN AS DOE MILL ROAD AND SCHMIDBAUER POPULATIONS.
8	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	NORTHEAST OF CHICO ALONG SOUTHERN BRANCH OF SYCAMORE CREEK, ABOUT 1.5 MILES WNW OF HORSESHOE LAKE.	ALONG CREEK FROM A FEW HUNDRED FEET EAST OF THE MOUTH OF THE DIVERSION CHANNEL EASTWARD TO THE POWER LINES.
9	Limnanthes floccosa ssp. californica	Butte County meadowfoam	NEAR THE INTERSECTION OF HIGHWAY 32 AND BRUCE ROAD ON THE EAST SIDE OF CHICO.	PLANTS ON EAST AND WEST SIDES OF BRUCE RD. ALSO IN NW 1/4 OF SECTION 29 AND SE 1/4 OF SECTION 19. N SIDE OF LITTLE CHICO CREEK. BOTH SIDES OF BRUCE ROAD. THESE ARE REFERRED TO AS THE HUMBOLDT, NORTH ENLOE, AND BRUCE-STILSON
10	Monardella venosa	veiny monardella	HORNING RANCH. IN UNNAMED CANYON JUST SE OF THE NEAL ROAD DUMP.	3 MAJOR PATCHES WITH ABOUT 10 SUBPOPULATIONS MAPPED, ALONG DRAINAGES, WITHIN 200 FEET OF CREEK EDGE.
11	Limnanthes floccosa ssp. californica	Butte County meadowfoam	RANCHO ARROYO AND BIDWELL RANCH SITES; ON NORTH SIDE OF SOUTHERN BRANCH OF SYCAMORE CREEK, BY DIVERSION CHANNEL.	PLANTS EXTEND ABOUT 50 METERS WEST OF THE FENCELINE WHICH RUNS ALONG RANCHO ARROYO PROPERTY BOUNDARY. POPULATION ALSO EXTENDS INTO THE ADJACENT BIDWELL RANCH TO THE EAST.
12	Limnanthes floccosa ssp. californica	Butte County meadowfoam	EAST SIDE OF POTTER ROAD BIKE PATH, NORTH OF HUMBUG ROAD, EAST OF CHICO.	MAPPED BY CNDDB NON-SPECIFICALLY ACCORDING TO SITE MAP PROVIDED BY GREGG.
13	Sidalcea robusta	Butte County checkerbloom	ALONG BUTTE CREEK, HUMBUG RD, AND HONEY RUN RD; NE AND SW OF COVERED BRIDGE, EAST OF CHICO.	MAPPED BY CNDDB AS 4 POLYS: W POLY BASED ON A 2005 MOLTER MAP, 2 E POLYS BASED ON A HANTELMAN SHAPEFILE (ORIG SOURCE IS R. FALLSCHEER MAP), REMAINING POLY BASED ON SITE DESCRIPTION (NEAR COVERED BRIDGE). IN SEC 25 & NW 1/4 NW
14	Sidalcea robusta	Butte County checkerbloom	NEAR TOP OF RIDGE BETWEEN BIG CHICO CREEK AND LITTLE CHICO CREEK, UPPER BIDWELL PARK, CHICO.	MAPPED AS 6 POLYGONS BY CNDDB. WITHIN THE EAST 1/2 OF THE NE 1/4 OF SECTION 10 AND THE NW 1/4 OF THE NW 1/4 OF SECTION 11.
15	Campylopodiella stenocarpa	flagella-like atractylocarpus	RIDGE BETWEEN BIG CHICO CREEK AND SYCAMORE CREEK, UPPER BIDWELL PARK, CHICO.	MAPPED ACCORDING TO COORDINATES PROVIDED BY JANEWAY (NO DATUM PROVIDED): 121 45' 39" W, 39 46' 51" N.
16	Stuckenia filiformis ssp. alpina	northern slender pondweed	ON THE N SIDE OF BUTTE CREEK NE OF THE SKYWAY, BUTTE CREEK RESERVE.	IN A POND ALONG A CHANNEL. MAPPED BY CNDDB AS BEST GUESS AROUND THE POND VISIBLE ON AERIAL IMAGERY IN THE SE1/4 OF THE NW1/4 OF SECTION 4 ACCORDING TO LOCATION AND TRS INFORMATION ON HERBARIUM LABEL.
17	Sidalcea robusta	Butte County checkerbloom	APPROXIMATELY 0.75 AIR MILE NE OF THE NARROWS IN VICINITY OF NANCE CANYON, N OF NEAL ROAD, NE OF LANDFILL, NEAR CHICO.	MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO A HANTELMAN SHAPEFILE IN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 1 AND IN THE SW 1/4 OF THE SW 1/4 OF SECTION 6.
18	Sidalcea robusta	Butte County checkerbloom	UNNAMED CANYON SE OF NEAL ROAD, EAST OF ROAD ABOUT 2 MILES EAST OF JUNCTION WITH HWY 99, SW OF PARADISE.	HORNING RANCH. MAPPED BY CNDDB AS TWO POLYGONS ACCORDING TO A 1992 CASTRO MAP IN THE NW 1/4 OF THE NW 1/4 OF SECTION 13 AND THE NE 1/4 OF THE NE 1/4 OF SECTION 14.
19	Sidalcea robusta	Butte County checkerbloom	ALONG EDGE OF BUTTE CREEK CANYON, SOUTH OF THE SKYWAY AND NORTH OF RR TRACKS, 1.5 AIR MILES NW OF ELLIOT SPRING HOUSE.	LYING WEST OF SHALLOW DRAINAGE. MAPPED BY CNDDB AS 2 POLYS IN SE 1/4 OF NE 1/4 AND NW 1/4 OF SE 1/4 OF SEC 36. SCHLISING'S 1982 MAP SHOWS POP IN SEC 36 S OF SKYWAY BUT HIS TRS PLACE IT IN SE1/4 NW1/4 SEC 36 N OF SKYWAY; NEEDS
20	Sidalcea robusta	Butte County checkerbloom	NANCE CANYON, APPROXIMATELY 0.5 AIR MILE WEST OF THE NARROWS, SW OF PARADISE.	MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A HANTELMAN SHAPEFILE.
21	Sidalcea robusta	Butte County checkerbloom	NANCE CANYON, ABOUT 1 AIR MILE WEST OF ELLIOT SPRING HOUSE, SOUTHWEST OF PARADISE.	ABOUT 0.75 MILE SOUTHEAST OF THE SKYWAY ON THE NORTHWEST FACING SLOPES OF NANCE CANYON. MAPPED WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 6.
22	Sidalcea robusta	Butte County checkerbloom	UPPER BIDWELL PARK ABOVE GOLF COURSE IN SAVANNA, NORTH OF HORSESHOE LAKE, CHICO.	MAPPED AS 5 POLYGONS ACCORDING TO 2002 STUART COORDINATES AND 2019 IRWIN COORDINATES.
23	Rhynchospora californica	California beaked-rush	UPPER BIDWELL PARK ALONG THE NORTH SIDE OF BIG CHICO CREEK, ABOUT 1.2 AIR MILES ENE OF HORSESHOE LAKE.	2 COLONIES. ONE 2.3 MILES ALONG UPPER PARK ROAD FROM WILDWOOD AVE AND ABOUT 0.25 MILE NORTHWEST UP THE SLOPE. ADDITIONAL POP 0.1 MI TO THE SW.
24	Rhynchospora californica	California beaked-rush	NORTH OF BIG CHICO CREEK, ABOUT 0.7 AIR MILE EAST OF HORSESHOE LAKE, BIDWELL PARK, CHICO.	APPROXIMATELY 1100' WEST OF POWER LINES AND 1000' NORTH OF LOWER TRAIL (ABOVE UPPER PARK ROAD). MAPPED ON THE BORDER BETWEEN THE SE 1/4 OF SECTION 8 AND THE SW 1/4 OF SECTION 9.
25	Sidalcea robusta	Butte County checkerbloom	ALONG HUMBOLDT ROAD, JUST SOUTH OF ITS EASTERN JUNCTION WITH CA-32, NORTH OF HOG SPRING, EAST OF CHICO.	MAPPED ACCORDING TO IRWIN COORDINATES FROM INATURALIST. PLACE NAME IS GIVEN AS "3661 HUMBOLDT ROAD" BUT THIS ADDRESS IS SW OF POINT PROVIDED.
26	Sidalcea robusta	Butte County checkerbloom	ALONG TOP OF SOUTHERN CLIFFS OF BUTTE CREEK CANYON, 900 FEET NORTH OF SKYWAY, APPROXIMATELY 4 MILES EAST OF CHICO.	MAPPED BY CNDDB ACCORDING TO A HANTELMAN SHAPEFILE (ORIGINAL DATA FROM "STERN, K.R. 1989-1990") IN THE SW 1/4 OF THE NE 1/4 OF SECTION 3.
27	Sidalcea robusta	Butte County checkerbloom	NANCE CANYON, APPROXIMATELY 0.9 AIR MILE WEST OF THE NARROWS, SW OF PARADISE.	MAPPED BY CNDDB ACCORDING TO A HANTELMAN SHAPEFILE IN THE SW 1/4 OF THE NE 1/4 OF SECTION 11.
28	Sidalcea robusta	Butte County checkerbloom	NANCE CANYON, APPROXIMATELY 0.9 AIR MILE NW OF THE NARROWS, SW OF PARADISE.	MAPPED BY CNDDB ACCORDING TO A HANTELMAN SHAPEFILE IN THE SOUTH HALF OF THE SE 1/4 OF SECTION 2.
29	Sidalcea robusta	Butte County checkerbloom	NANCE CANYON, APPROXIMATELY 1.1 AIR MILES SW OF THE NARROWS, SW OF PARADISE.	MAPPED BY CNDDB ACCORDING TO A HANTELMAN SHAPEFILE IN THE SW 1/4 OF THE SE 1/4 OF SECTION 11.
30	Sidalcea robusta	Butte County checkerbloom	UNNAMED CANYON SE OF NEAL ROAD, EAST OF ROAD ABOUT 1.4 MILES EAST OF JUNCTION WITH HWY 99, 5.5 MILES SW OF PARADISE.	HORNING RANCH. MAPPED NEARLY IN CENTER OF SECTION 14.
31	Sidalcea robusta	Butte County checkerbloom	APPROXIMATELY 0.75 AIR MILE WEST OF HOG SPRING, SOUTH OF BIDWELL PARK.	MAPPED BY CNDDB ACCORDING TO A HANTELMAN SHAPEFILE IN THE NW 1/4 OF THE SW 1/4 OF SECTION 15.
32	Sidalcea robusta	Butte County checkerbloom	NANCE CANYON, APPROXIMATELY 0.75 AIR MILE NORTH OF THE NARROWS, SW OF PARADISE.	MAPPED BY CNDDB ACCORDING TO A HANTELMAN SHAPEFILE IN THE SE 1/4 OF THE SW 1/4 OF SECTION 1.
33	Sidalcea robusta	Butte County checkerbloom	ALONG THE SKYWAY NEAR THE HEAD OF CROUCH RAVINE, SOUTH OF BUTTE CREEK, EAST OF CHICO.	MAPPED BY CNDDB ACCORDING TO A HANTELMAN SHAPEFILE IN THE NE 1/4 OF THE NW 1/4 OF SECTION 2.
34	Fritillaria eastwoodiae	Butte County fritillary	EITHER SIDE OF BUTTE CREEK AT HONEY RUN BRIDGE, ABOUT 4 AIR MI WSW OF PARADISE.	TAYLOR COLLECTION MADE 25' SOUTH OF HONEY RUN COVERED BRIDGE, DEWITT COLLECTION MADE NEAR BRIDGE ON NORTH SIDE OF CREEK. HONEY RUN COVERED BRIDGE IS JUST SOUTH OF PRESENT BRIDGE & WHERE BENCHMARK IS ON N SHORE OF
35	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	UPPER BIDWELL PARK, NEAR DIVERSION DAM (PARKING LOT L).	IN HILLSIDE SEEP ABOUT 130 YARDS NORTH FROM ENTRANCE OF DIVERSION DAM PARKING AREA. NW SIDE OF BIG CHICO CREEK.
36	Sidalcea robusta	Butte County checkerbloom	NORTH SIDE OF CANYON OAKS TERRACE, APPROX 0.3 MILE EAST OF ITS JUNCTION WITH SHADYBROOK LANE, SOUTH OF BIDWELL PARK.	MAPPED ACCORDING TO IRWIN COORDINATES FROM INATURALIST. IN THE EAST 1/2 OF SECTION 17.
37	Sidalcea robusta	Butte County checkerbloom	BIDWELL PARK; ALONG BIG CHICO CREEK, APPROXIMATELY 0.8 AIR MILE SW OF HORSESHOE LAKE.	MAPPED ACCORDING TO IRWIN COORDINATES FROM INATURALIST. IN THE SE 1/4 OF THE NE 1/4 OF SECTION 18.

OBJECTID	SNAME	CNAME	ECOLOGICAL
	Balsamorhiza	big-scale	
1	macrolepis	balsamroot	
2	Fritillaria pluriflora	adobe-lily	
3	Sidalcea robusta	Butte County checkerbloom	
4	Fritillaria eastwoodiae	Butte County fritillary	
5	Sidalcea robusta	Butte County checkerbloom	
6	Sidalcea robusta	Butte County checkerbloom	BLUE OAK WOODLAND/CHAPARRAL ECOTONE. WITH QUERCUS DOUGLASII, Q. WISLENZENII, TOXICODENDRON DIVERSILOBUM, UMBELLULARIA CALIFORNICA, SANICULA BIPINNATA, ERIOPHYLLUM LANATUM SSP. GRANDIFLORA, TRIFOLIUM HIRTUM, AVENA BARBATA, ET AL.
7	Limnanthes floccosa ssp. californica	Butte County meadowfoam	ROCKY VERNAL STREAM IN GRASSLAND DOMINATED BY NAVARRETIA LEUCOCEPHALA, BLENNOSPERMA NANUM, LASTHENIA CHRYSOSTOMA, LAYIA FREMONTII, LIMNANTHES DOUGLASII SSP. ROSEA, L. ALBA ALBA. HABITAT WEST OF BRUCE RD IS DRIER THAN THAT EAST OF ROAD.
8	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	ALONG THE EDGES OF THE CREEK CHANNEL. PLANTS GROWING IN SATURATED ROCKY SOILS. LIMNANTHES FLOCCOSA SSP. CALIFORNICA GROWS ON FLATS NEAR THE WESTERN END OF POPULATION.
9	Limnanthes floccosa ssp. californica	Butte County meadowfoam	IN ROCKY VERNAL STREAMS WITH LAYIA FREMONTII, TRIPHYSARIA ERIANTHA, LASTHENIA CHRYSOSTOMA, BLENNOSPERMA NANUM, NAVARRETIA LEUCOCEPHALA, AND ACHYRACHAENA MOLLIS.
10	Monardella venosa	veiny monardella	IN DEEPLY CRACKING, HEAVY DARK GRAY CLAY SOIL POCKETS, WITH SPARSE HERBS AND GRASSES INCLUDING EVAX CAULESCENS, NAVARRETIA HETERANDRA, N. NIGELLIFORMIS, AND HEMIZONIA SP.
11	Limnanthes floccosa ssp. californica	Butte County meadowfoam	IN SHALLOW ROCKY SWALES, WITH LIMNANTHES DOUGLASII. VERNAL POOL SPP. RATHER DEPAUPERATE, WITH BLENNOSPERMA NANUM DOMINANT. L. FLOCCOSA SSP. FLOCCOSA OCCURS IN SYCAMORE CREEK CHANNEL EAST OF SITE; TWO SSP. NOT FOUND TOGETHER.
12	Limnanthes floccosa ssp. californica	Butte County meadowfoam	VERNAL POOL/SWALE COMPLEX ON BASALT RIDGE, 3-8% SLOPES. FOUND IN AND ALONG SWALE MARGINS WITH LEPIDIUM NITIDUM, LASTHENIA FREMONTII, ERODIUM BOTRYS, BLENNOSPERMA NANUM, AND PLAGIOBOTHYS STIPITATUS.
13	Sidalcea robusta	Butte County checkerbloom	AT EDGE OF RIPARIAN ASSOCIATED WITH BUTTE CREEK. ASSOCIATED WITH BRIZA MAXIMA, BROMUS HORDEACEUS, AVENA BARBATA, CHLOROGALUM POMERIDIANUM VAR. POMERIDIANUM, AND HETEROMELES ARBUTIFOLIA.
14	Sidalcea robusta	Butte County checkerbloom	FOOTHILL PINE-BLUE OAK WOODLAND WITH QUERCUS DOUGLASII, TOXICODENDRON DIVERSILOBUM, CEANOTHUS CUNEATUS, HETEROMELES ARBUTIFOLIA, AVENA BARBATA, BRACHYPODIUM DISTACHYON, BROMUS HORDEACEAUS, AND CYNOSURUS ECHINATUS.
15	Campylopodiella stenocarpa	flagella-like atractylocarpus	TABLE TOP RIDGE SLOPING TO THE WSW. OPEN BLUE OAK WOODLAND; THIN ROCKY SOIL OVER TUSCAN MUDFLOW (VOLCANIC) SUBSTRATE. WHERE GRASSES SPARSE; DOMINATED BY SELAGINELLA HANSENII OR BARE.
16	Stuckenia filiformis ssp. alpina	northern slender pondweed	RIPARIAN WOODLAND. UNCOMMON IN SHALLOW WATER OF A POND ALONG A CHANNEL WHICH CARRIES WATER DURING MODERATE WINTER AND SPRING FLOODS.
17	Sidalcea robusta	Butte County checkerbloom	
18	Sidalcea robusta	Butte County checkerbloom	IN SHADED AREAS ON EAST FACING CREEK BANKS OR UNDER CALIFORNIA JUNIPERS IN COBBLE BARS WITHIN DRY CREEK BED OR ON NE-FACING SIDE OF SMALL SIDE DRAINAGE IN FOOTHILL WOODLAND. WITH CLARKIA RHOMBOIDEA, TOXICODENDRON, DICHELOSTEMMA VOLUBILE.
19	Sidalcea robusta	Butte County checkerbloom	OAK WOODLANDS. WITH QUERCUS DOUGLASII AND AVENA BARBATA. SOUTHWESTERLY ASPECT, 0-10% SLOPE.
20	Sidalcea robusta	Butte County checkerbloom	
21	Sidalcea robusta	Butte County checkerbloom	IN OAK WOODLANDS WITH QUERCUS DOUGLASII AND SANICULA BIPINNATIFIDA.
22	Sidalcea robusta	Butte County checkerbloom	BLUE OAK SAVANNAH: QUERCUS DOUGLASII, QUERCUS WISLIZENI, PINUS SABINIANA, CEANOTHUS CUNEATUS, RHAMNUS RUBRA, TOXICODENDRON DIVERSILOBUM, AVENA FATUA, AND BRODIAEA CALIFORNICA. TUSCAN SOILS.
23	Rhynchospora californica	California beaked-rush	SHALLOW SOIL AT LOWER END OF SEEP WHERE OTHER VEGETATION IS SPARSE. WITH MUHLENBERGIA RIGENS, CAREX DENSA, AND ELEOCHARIS. SURROUNDED BY BLUE OAK WOODLAND WITH OUTCROPS OF TUSCAN MUDFLOW.
24	Rhynchospora californica	California beaked-rush	HILLSIDE SEEP/WETLAND WITHIN BLUE OAK SAVANNAH. WITH SALIX LASIOLEPIS, MUHLENBERGIA RIGENS, HYPERICUM ANAGALLOIDES, BRIZA MINOR, STACHYS PYCNANTHA, ELEOCHARIS SPP., AND LOLIUM MULTIFLORUM. TUSCAN SOILS.
25	Sidalcea robusta	Butte County checkerbloom	
26	Sidalcea robusta	Butte County checkerbloom	IN CLUMPS, BENEATH AND NORTH OF QUERCUS BERBERIDIFOLIA.
27	Sidalcea robusta	Butte County checkerbloom	
28	Sidalcea robusta	Butte County checkerbloom	
29	Sidalcea robusta	Butte County checkerbloom	
30	Sidalcea robusta	Butte County checkerbloom	IN SHADED AREAS ON EAST FACING CREEK BANKS OR UNDER CALIFORNIA JUNIPERS IN COBBLE BARS WITHIN DRY CREEK BED OR ON NE-FACING SIDE OF SMALL SIDE DRAINAGE IN FOOTHILL WOODLAND. WITH CLARKIA RHOMBOIDEA, TOXICODENDRON, DICHELOSTEMMA VOLUBILE.
31	Sidalcea robusta	Butte County checkerbloom	
32	Sidalcea robusta	Butte County checkerbloom	
33	Sidalcea robusta	Butte County checkerbloom	
34	Fritillaria eastwoodiae	Butte County fritillary	GROWING IN WET SANDY-CLAY SOIL. ASSOCIATES INCLUDE LATHYRUS, VICIA, MECONELLA CALIFORNICA, AND BRODIAEA LAXA.
35	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	HILLSIDE SEEP WITH QUERCUS LOBATA, RHAMNUS RUBRA, ROSA CALIFORNICA, MENTHA PULEGIUM, TOXICODENDRON DIVERSILOBUM, ARTEMISIA DOUGLASIANA, VITIS CALIFORNICA, VERBENA LITTORALIS, AND RUMEX CRISPUS. TUSCAN SOILS, 4% SLOPE.
36	Sidalcea robusta	Butte County checkerbloom	
37	Sidalcea robusta	Butte County checkerbloom	

OBJECTID	SNAME	CNAME	GENERAL
	Balsamorhiza	big-scale	
1	macrolepis	balsamroot	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS AN UNDATED COLLECTION BY BIGELOW. NEEDS FIELDWORK.
2	Fritillaria pluriflora	adobe-lily	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1935 COLLECTION BY BROWN. NEEDS FIELDWORK.
3	Sidalcea robusta	Butte County checkerbloom	SITE BASED ON 1934 MORRISON COLLECTION. DURHAM AREA VISITED BY STERN IN 1974; NO S. ROBUSTA SEEN, MOST OF AREA NOW CULTIVATED. SCHLISING (1982) QUESTIONS ACCURACY OF LOCALITY SINCE ELEVATION IS LOW FOR SPECIES. ID NEEDS CONFIRMATION.
4	Fritillaria eastwoodiae	Butte County fritillary	TYPE LOCALITY. COLLECTED TWICE IN THIS VICINITY; THE ORIGINAL COLLECTION BY MORRISON IN 1932 AND AGAIN IN 1935 BY BROWN.
5	Sidalcea robusta	Butte County checkerbloom	ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN OBSERVATION BY JOKERST IN 1981 (CITED BY SCHLISING, 1982). NOT OBSERVED BY HANTELMAN IN 2003.
6	Sidalcea robusta	Butte County checkerbloom	TYPE LOCALITY. SEC 16: 500+ PLANTS IN 1986, 173 IN 2009. 2834 PLANTS OBSERVED THROUGHOUT OCCURRENCE IN 2002. COMMON IN SW 1/4 OF SECTION 35 IN 2009. PORTIONS OF SITE SEEN IN 1991, 2017-2019. INCLUDES FORMER OCCURRENCES #24, 29, 30.
7	Limnanthes floccosa ssp. californica	Butte County meadowfoam	POP #S FOR PORTIONS OF SITE: <100 PLANTS IN 1984, 9000 IN 1988, 1000S IN 1992. 947 IN 2002, SEEN IN 2005, 10,194 IN 2008, ~2700+ IN 2018, SEEN IN 2020 & 2022. PORTIONS N OF DOE MILL RD HAVE BEEN ELIMINATED. INCLUDES FORMER OCC #34 & 43.
8	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	MANY SCATTERED PLANTS OBSERVED IN 1993.
9	Limnanthes floccosa ssp. californica	Butte County meadowfoam	POPULATION NUMBERS FOR PORTIONS OF OCC: SEEN IN 1979, ~68,700 PLANTS SEEN IN 1988, SEEN IN 1990, 100S OF PLANTS IN 1991, NUMBER OF PLANTS INCREASED IN 1992, ~3225 PLANTS SEEN IN 2008, 50-100 PLANTS IN 2017, <20 IN 2019, >1100 IN 2021.
10	Monardella venosa	veiny monardella	THIS TAXON WAS PREVIOUSLY THOUGHT TO BE EXTINCT. MORE THAN 3000 PLANTS SEEN IN 1992. OTHER THREATS INCLUDE DEVELOPMENT AND GRAZING. HEAVILY GRAZED FOR DECADES, BUT NATIVES STILL PERSIST. INCLUDES FORMER OCCURRENCE #2.
11	Limnanthes floccosa ssp. californica	Butte County meadowfoam	1800 PLANTS SEEN IN 1988 & 1991 BY DOLE; JOKERST REPORTS 4000 PLANTS IN 1988; JANEWAY & KELLY REPORT ONLY A FEW IN 1991 (2 DAYS BEFORE DOLE'S VISIT). 162,000 PLANTS FOUND IN BIDWELL RANCH IN 2006. ~5000 PLANTS IN 2008.
12	Limnanthes floccosa ssp. californica	Butte County meadowfoam	A "SMALL POPULATION" WAS OBSERVED HERE IN 2010.
13	Sidalcea robusta	Butte County checkerbloom	W POLYGON: 44 INDIVIDUALS OBSERVED IN 2005. UNKNOWN NUMBER OF PLANTS OBSERVED IN TWO EASTERN POLYGONS IN 1991; FAR EAST POLYGON NOT RELOCATED IN 2002. OBSERVED NEAR COVERED BRIDGE IN 1937 AND 1981. INCLUDES FORMER OCCURRENCE #31.
14	Sidalcea robusta	Butte County checkerbloom	133 PLANTS OBSERVED IN 2002. 65 PLANTS OBSERVED IN 2010. 132 PLANTS OBSERVED IN 2011. 76 CLUMPS OF PLANTS OBSERVED IN 2005. 35+ PLANTS OBSERVED IN 2018. 100+ PLANTS OBSERVED IN 2019.
15	Campylopodiella stenocarpa	flagella-like atractylocarpus	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS 2001 JANEWAY COLLECTION.
16	Stuckenia filiformis ssp. alpina	northern slender pondweed	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1987 OSWALD COLLECTION. NEEDS FIELDWORK. DID WE MAP THIS CORRECTLY?
17	Sidalcea robusta	Butte County checkerbloom	SITE BASED ON 1991 BAILEY OBSERVATIONS (CITED IN A HANTELMAN SHAPEFILE). NEED POPULATION AND HABITAT INFORMATION FOR THIS SITE.
18	Sidalcea robusta	Butte County checkerbloom	~25 PLANTS SEEN BY CASTRO IN 1992 BETWEEN EO #26 & 33. 10 PLANTS RELOCATED IN NE PART OF EO IN 2004; OTHER PARTS OF OCCURRENCE WERE NOT RELOCATED IN 2004. A 2006 COLLECTION FROM "HORNING RANCH, 387 FT" ATTRIBUTED HERE.
19	Sidalcea robusta	Butte County checkerbloom	OBSERVED IN THIS AREA BY SCHLISING IN 1978. 59 PLANTS IN TWO PATCHES OBSERVED IN 1989 (32 IN NORTHERN POLYGON AND 27 IN SOUTHERN POLYGON). PLANTS WERE VERY RHIZOMATOUS; DIFFICULT TO DISTINGUISH INDIVIDUAL PLANTS.
20	Sidalcea robusta	Butte County checkerbloom	SITE BASED ON 1991 BAILEY OBSERVATIONS (CITED IN A HANTELMAN SHAPEFILE). NEED POPULATION AND HABITAT INFORMATION FOR THIS SITE.
21	Sidalcea robusta	Butte County checkerbloom	OBSERVED BY SCHLISING IN 1982. 600 PLANTS OBSERVED IN 1991 BY MOLTER. NOTE: SCHLISING #4225 SAYS "...SLOPES OF HAMLIN CYN" BUT THE REST OF THE LOCATION DESCRIPTION ON THE LABEL SUGGESTS HE MEANT NANCE CYN.
22	Sidalcea robusta	Butte County checkerbloom	OBSERVED BY SCHLISING IN 1976. 86 PLANTS OBSERVED IN EAST-MOST POLYGON IN 2002. UNKNOWN NUMBER OF PLANTS OBSERVED IN 4 WESTERN POLYGONS IN 2019.
23	Rhynchospora californica	California beaked-rush	UNKNOWN NUMBER OF PLANTS SEEN IN EASTERN POLYGON IN 1988. 11 PLANTS SEEN IN WESTERN POLYGON IN 2002.
24	Rhynchospora californica	California beaked-rush	34 PLANTS SEEN IN 2002. ABUNDANT IN THIS SMALL LOCATION IN 2004. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2012.
25	Sidalcea robusta	Butte County checkerbloom	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2018 IRWIN OBSERVATION.
26	Sidalcea robusta	Butte County checkerbloom	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1979. SITE ALSO OBSERVED BY STERN IN 1989/1990 (CITED IN HANTELMAN SHAPEFILE).
27	Sidalcea robusta	Butte County checkerbloom	SITE BASED ON A 1991 BAILEY OBSERVATION (CITED IN A HANTELMAN SHAPEFILE). NEED POPULATION AND HABITAT INFORMATION FOR THIS SITE.
28	Sidalcea robusta	Butte County checkerbloom	SITE BASED ON A 1991 BAILEY OBSERVATION (CITED IN A HANTELMAN SHAPEFILE). NEED POPULATION AND HABITAT INFORMATION FOR THIS SITE.
29	Sidalcea robusta	Butte County checkerbloom	SITE BASED ON A 1991 BAILEY OBSERVATION (CITED IN A HANTELMAN SHAPEFILE). NEED POPULATION AND HABITAT INFORMATION FOR THIS SITE.
30	Sidalcea robusta	Butte County checkerbloom	~25 PLANTS SEEN BY CASTRO IN 1992 BETWEEN THIS OCCURRENCE AND OCCURRENCE #33. 5 PLANTS RELOCATED IN 2004. STREAM BANKS LOCALLY DEGRADED DUE TO GRAZING CATTLE TRAMPLING, BUT NATIVE FLORA SEEMS TO PERSIST ALONG WITH SOME EXOTICS.
31	Sidalcea robusta	Butte County checkerbloom	28 PLANTS OBSERVED IN 2004.
32	Sidalcea robusta	Butte County checkerbloom	SITE BASED ON A 1991 BAILEY OBSERVATION (CITED IN A HANTELMAN SHAPEFILE). NEED POPULATION AND HABITAT INFORMATION FOR THIS SITE.
33	Sidalcea robusta	Butte County checkerbloom	SITE BASED ON A 1990 OSWALD OBSERVATION (CITED IN A HANTELMAN SHAPEFILE). NEED POPULATION AND HABITAT INFORMATION FOR THIS SITE.
34	Fritillaria eastwoodiae	Butte County fritillary	SITE BASED ON COLLECTIONS FROM TAYLOR IN 1976 & DEWITT IN 1971. A CNPS NOTE CARD FROM APRIL, 1974 MENTIONS AN OBSERVATION OF THIS SPECIES WITHIN SEC 25. 1971 DEWITT COLLECTION WAS ANNOTATED TO F. RECURVA BY SANTANA IN 1982. NEEDS FIELDWORK.
35	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	150 PLANTS SEEN BY STUART IN 2002. POPULATION SEEMED STABLE.
36	Sidalcea robusta	Butte County checkerbloom	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2019 IRWIN OBSERVATION.
37	Sidalcea robusta	Butte County checkerbloom	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2018 IRWIN OBSERVATION.

OBJECTID	SNAME	CNAME	THREAT	THREATLIST	LASTUPDATE	NEAR_DIST	Near_Miles	Direction
1	Balsamorhiza macrolepis	big-scale balsamroot			20130813	5443.35893	1.03093922	NORTHWEST
2	Fritillaria pluriflora	adobe-lily			20010511	14399.5783	2.72719288	SOUTH
3	Sidalcea robusta	Butte County checkerbloom	MOST OF AREA IS UNDER CULTIVATION.	Agriculture	20111028	14399.5783	2.72719288	SOUTH
4	Fritillaria eastwoodiae	Butte County fritillary	IT IS DOUBTFUL THAT THE PLANT STILL EXISTS HERE, THE AREA IS INTENSIVELY CULTIVATED.		19940701	14399.5783	2.72719288	SOUTH
5	Sidalcea robusta	Butte County checkerbloom			20111128	6727.93773	1.2742306	NORTH
6	Sidalcea robusta	Butte County checkerbloom	SOME PLANTS HEAVILY GRAZED.	Grazing	20190618	17009.6481	3.22152424	NORTH
7	Limnanthes floccosa ssp. californica	Butte County meadowfoam	CATTLE GRAZING, DRAINAGE CHANGES FROM BRUCE RD CONSTRUCTION, ADJACENT TO HOUSING DEVELOPMENT, PROPOSED HIGH SCHOOL SITE.	Development; Grazing; Surface water diversion	20230131	298.326153	0.05650117	NORTH
8	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	GRAZING.	Grazing	19971015	24395.9689	4.62044859	NORTH
9	Limnanthes floccosa ssp. californica	Butte County meadowfoam	DEVELOPMENT, ROAD WORK, AND GRAZING ARE THREATS. CHURCH SITE ELIMINATED BY GRADING; BRUCE-STILSON POP MAY BE FILLED.	Development; Grazing; Other; Road/trail construction/maint.	20230113	7535.27616	1.42713559	NORTH
10	Monardella venosa	veiny monardella	SITE IS BEING CONSIDERED FOR INUNDATION AS PART OF AN ALTERNATIVE WASTEWATER TREATMENT PLAN FOR PARADISE.	Dam/Inundation; Development; Grazing	20110503	20296.616	3.84405613	SOUTHEAST
11	Limnanthes floccosa ssp. californica	Butte County meadowfoam	OVERGRAZING BY CATTLE (GRAZING LIMITATIONS REPORTED IN '06) AND DEVELOPMENT; SITE DOMINATED BY THE WEEDY ERODIUM BOTRYS.	Development; Grazing; Non-native plant impacts	20100617	24606.1844	4.66026211	NORTH
12	Limnanthes floccosa ssp. californica	Butte County meadowfoam			20130313	5051.03919	0.95663619	NORTHEAST
13	Sidalcea robusta	Butte County checkerbloom	ROAD MAINTENANCE AND WEED CONTROL.	Biocides; Road/trail construction/maint.	20190619	19307.2281	3.656672	EAST
14	Sidalcea robusta	Butte County checkerbloom	AREA USED AS DISC GOLF COURSE; NO DIRECT IMPACTS NOTED. POTENTIAL THREATS: TRAMPLING, SOIL EROSION, WEEDS, HERBIVORY.	Erosion/runoff; Foot traffic/trampling; Non-native plant impacts; Other; Recreational use (non-ORV)	20190627	25946.5439	4.91411829	NORTHEAST
15	Campylopodiella stenocarpa	flagella-like atractylocarpus			20201015	24528.4368	4.64553738	NORTH
16	Stuckenia filiformis ssp. alpina	northern slender pondweed			20090112	4710.8242	0.89220154	SOUTHEAST
17	Sidalcea robusta	Butte County checkerbloom			20111129	22210.7354	4.20657873	EAST
18	Sidalcea robusta	Butte County checkerbloom	FUTURE DEVELOPMENT. CATTLE GRAZING AND TRAMPLING. IMMEDIATE THREAT WAS INUNDATION FOR TREATED MUNICIPAL SEWAGE.	Development; Grazing; Other	20111129	21324.1151	4.03865814	SOUTHEAST
19	Sidalcea robusta	Butte County checkerbloom	HEAVY DEER BROWSING, SOME ORV USE.	ORV activity; Other	20111101	21812.1991	4.13109827	EAST
20	Sidalcea robusta	Butte County checkerbloom			20111129	20169.6394	3.82000756	SOUTHEAST
21	Sidalcea robusta	Butte County checkerbloom			20110920	24018.503	4.54895878	EAST
22	Sidalcea robusta	Butte County checkerbloom	SOME FOOT/BIKE TRAILS PRESENT, ALTHOUGH NO VISIBLE DISTURBANCE IN 2002.		20190618	21950.8824	4.15736389	NORTH
23	Rhynchospora californica	California beaked-rush	WITHIN BIDWELL PARK; SITE IS PROTECTED.		20161228	23487.7372	4.44843531	NORTH
24	Rhynchospora californica	California beaked-rush	NONE NOTED IN 2002.		20161228	22000.5697	4.16677475	NORTH
25	Sidalcea robusta	Butte County checkerbloom			20190619	20776.042	3.93485641	NORTHEAST
26	Sidalcea robusta	Butte County checkerbloom			20111128	11292.8944	2.13880587	EAST
27	Sidalcea robusta	Butte County checkerbloom			20111129	17620.9758	3.33730602	SOUTHEAST
28	Sidalcea robusta	Butte County checkerbloom			20111201	17641.6281	3.34121752	EAST
29	Sidalcea robusta	Butte County checkerbloom			20111129	19025.2987	3.60327625	SOUTHEAST
30	Sidalcea robusta	Butte County checkerbloom	FUTURE DEVELOPMENT. CATTLE? IMMEDIATE THREAT WAS INUNDATION FOR TREATED MUNICIPAL SEWAGE.	Development; Grazing; Other	20111129	20283.029	3.84148264	SOUTHEAST
31	Sidalcea robusta	Butte County checkerbloom			20111129	18590.4476	3.52091813	NORTHEAST
32	Sidalcea robusta	Butte County checkerbloom			20111201	20161.7801	3.81851888	EAST
33	Sidalcea robusta	Butte County checkerbloom			20111129	14635.8317	2.77193785	EAST
34	Fritillaria eastwoodiae	Butte County fritillary			19940513	21040.1251	3.9848721	EAST
35	Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow			20061006	25148.4676	4.76296759	NORTH
36	Sidalcea robusta	Butte County checkerbloom			20190619	18055.6434	3.41962934	NORTH
37	Sidalcea robusta	Butte County checkerbloom			20190619	18621.8914	3.52687335	NORTH

OBJECTID	SNAME	CNAME	ELMCODE	OCCNUMBER	MAPNDX	EONDX	KEYQUAD	KQUADNAME	KEYCOUNTY	PLSS	ELEVATION	PARTS	ELMTYPE	TAXONGROUP	EOCOUNT	ACCURACY	PRESENCE	OCCTYPE	OCCRANK
13	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	AAABH01051	1249	B0549	112413	3912168	Ord Ferry	BUT	T22N, R01E, Sec. 31 (M)	137	1	2	Amphibians	1	1 mile	Extirpated	Natural/Native occurrence	None
25	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	AAABH01051	1248	A6597	108362	3912176	Paradise West	BUT	T22N, R02E, Sec. 10, NW (M)	438	2	2	Amphibians	1	non-specific area	Presumed Extant	Natural/Native occurrence	Unknown
2	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	AAABH01052	26	A7093	108870	3912176	Paradise West	BUT		561	1	2	Amphibians	1	non-specific area	Presumed Extant	Natural/Native occurrence	Fair
4	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	AAABH01052	27	A7094	108871	3912176	Paradise West	BUT		760	1	2	Amphibians	1	non-specific area	Presumed Extant	Natural/Native occurrence	Unknown
19	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	AAABH01052	63	B0525	112388	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 2 (M)	291	1	2	Amphibians	1	non-specific area	Presumed Extant	Natural/Native occurrence	Unknown
32	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	AAABH01052	61	A7091	108869	3912166	Hamlin Canyon	BUT	T22N, R03E, Sec. 30, NW (M)	400	2	2	Amphibians	1	non-specific area	Presumed Extant	Natural/Native occurrence	Fair
34	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	AAABH01052	64	A7097	108872	3912166	Hamlin Canyon	BUT	T22N, R02E, Sec. 25, SW (M)	331	1	2	Amphibians	1	non-specific area	Presumed Extant	Natural/Native occurrence	Unknown
46	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	AAABH01052	115	B8374	122497	3912167	Chico	BUT	T21N, R02E, Sec. 8, NW (M)	216	1	2	Amphibians	1	80 meters	Presumed Extant	Natural/Native occurrence	Fair
31	Spea hammondii	western spadefoot	AAABF02020	180	42741	42741	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 12, SW (M)	240	1	2	Amphibians	1	non-specific area	Possibly Extirpated	Natural/Native occurrence	None
33	Spea hammondii	western spadefoot	AAABF02020	442	99119	100641	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 18, NW (M)	270	1	2	Amphibians	1	non-specific area	Presumed Extant	Natural/Native occurrence	Poor
41	Spea hammondii	western spadefoot	AAABF02020	391	69602	70375	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 11, E (M)	213	2	2	Amphibians	1	specific area	Presumed Extant	Natural/Native occurrence	Fair
26	Agelaius tricolor	tricolored blackbird	ABPBXB0020	261	24022	6695	3912167	Chico	BUT	T22N, R02E, Sec. 20 (M)	260	1	2	Birds	1	non-specific area	Possibly Extirpated	Natural/Native occurrence	None
42	Athene cunicularia	burrowing owl	ABNSB10010	1029	70987	71904	3912167	Chico	BUT	T22N, R02E, Sec. 32 (M)	310	1	2	Birds	1	specific area	Extirpated	Natural/Native occurrence	None
49	Athene cunicularia	burrowing owl	ABNSB10010	730	59763	59799	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 18 (M)	270	1	2	Birds	1	80 meters	Presumed Extant	Natural/Native occurrence	Unknown
44	Buteo swainsoni	Swainson's hawk	ABNKC19070	699	38867	33874	3912167	Chico	BUT	T21N, R01E, Sec. 13, NE (M)	180	1	2	Birds	1	80 meters	Presumed Extant	Natural/Native occurrence	Good
1	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	30	69684	70469	3912166	Hamlin Canyon	BUT		950	1	2	Birds	1	specific area	Presumed Extant	Natural/Native occurrence	Good
3	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	62	B5947	118962	3912176	Paradise West	BUT		1885	1	2	Birds	1	non-specific area	Presumed Extant	Natural/Native occurrence	Good
5	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	61	B5945	118961	3912176	Paradise West	BUT		1000	1	2	Birds	1	specific area	Presumed Extant	Natural/Native occurrence	Good
6	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	34	69685	70470	3912176	Paradise West	BUT		1800	1	2	Birds	1	specific area	Presumed Extant	Natural/Native occurrence	Excellent
28	Haliaeetus leucocephalus	bald eagle	ABNKC10010	268	69236	70015	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 08, SW (M)	500	1	2	Birds	1	1/5 mile	Presumed Extant	Natural/Native occurrence	Excellent
18	Laterallus jamaicensis coturniculus	California black rail	ABNME0304 1	236	76637	77582	3912166	Hamlin Canyon	BUT	T22N, R03E, Sec. 19, SW (M)	410	1	2	Birds	1	non-specific area	Presumed Extant	Natural/Native occurrence	Unknown
37	Laterallus jamaicensis coturniculus	California black rail	ABNME0304 1	206	76039	77039	3912176	Paradise West	BUT	T22N, R02E, Sec. 10, NW (M)	420	1	2	Birds	1	1/10 mile	Presumed Extant	Natural/Native occurrence	Good
11	Vireo bellii pusillus	least Bell's vireo	ABPBW0111 4	513	60986	92723	3912167	Chico	BUT	T22N, R01E, Sec. 26 (M)	200	1	2	Birds	5	1 mile	Presumed Extant	Natural/Native occurrence	Unknown
24	Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	121	32762	670	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 11 (M)	220	1	2	Crustaceans	3	specific area	Presumed Extant	Natural/Native occurrence	Excellent
39	Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	689	93404	94546	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 18 (M)	270	1	2	Crustaceans	1	specific area	Presumed Extant	Natural/Native occurrence	Unknown
17	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	78	33662	30635	3912167	Chico	BUT	T22N, R02E, Sec. 30 (M)	225	1	2	Crustaceans	1	3/5 mile	Presumed Extant	Natural/Native occurrence	Unknown
23	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	55	32762	669	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 11 (M)	230	1	2	Crustaceans	3	specific area	Presumed Extant	Natural/Native occurrence	Excellent
27	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	157	43437	43437	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 11 (M)	220	1	2	Crustaceans	1	1/5 mile	Presumed Extant	Natural/Native occurrence	Good
35	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	190	58092	58128	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 07 (M)	280	1	2	Crustaceans	1	1/10 mile	Presumed Extant	Natural/Native occurrence	Good
43	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	315	94762	95867	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 18, NW (M)	280	1	2	Crustaceans	1	specific area	Presumed Extant	Natural/Native occurrence	Unknown
48	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	59	28059	28560	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 12, SE (M)	260	1	2	Crustaceans	1	80 meters	Presumed Extant	Natural/Native occurrence	Unknown
53	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	58	28058	28559	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 11 (M)	227	1	2	Crustaceans	1	specific area	Presumed Extant	Natural/Native occurrence	Unknown
22	Linderiella occidentalis	California linderiella	ICBRA06010	110	32762	668	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 11 (M)	230	1	2	Crustaceans	3	specific area	Presumed Extant	Natural/Native occurrence	Excellent
38	Linderiella occidentalis	California linderiella	ICBRA06010	497	B5578	118549	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 18, NW (M)	277	1	2	Crustaceans	1	1/10 mile	Presumed Extant	Natural/Native occurrence	Unknown
7	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	AFCHA0209K	29	91658	92729	3912166	Hamlin Canyon	BUT	T21N, R02E, Sec. 03 (M)	0	1	2	Fish	1	non-specific area	Presumed Extant	Natural/Native occurrence	Unknown
8	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	AFCHA0209K	17	91229	92266	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 09 (M)	0	1	2	Fish	1	non-specific area	Presumed Extant	Natural/Native occurrence	Unknown
15	Oncorhynchus tshawytscha pop. 11	chinook salmon - Central Valley spring-run ESU	AFCHA0205L	3	34001	535	3912176	Paradise West	BUT	T22N, R03E, Sec. 05 (M)	800	1	2	Fish	1	specific area	Presumed Extant	Natural/Native occurrence	Fair
45	Bombus crotchii	Crotch bumble bee	IIHYM24480	292	B6251	119301	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 11, NE (M)	201	1	2	Insects	1	80 meters	Presumed Extant	Natural/Native occurrence	Unknown
20	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	291	95258	96389	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 22, N (M)	190	1	2	Insects	1	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown
36	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	228	94734	95845	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 23 (M)	200	1	2	Insects	1	1/10 mile	Presumed Extant	Natural/Native occurrence	Unknown
40	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	183	41880	41880	3912167	Chico	BUT	T21N, R02E, Sec. 05, SE (M)	225	1	2	Insects	1	non-specific area	Presumed Extant	Natural/Native occurrence	Unknown
50	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	107	33037	3766	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 18, S (M)	260	1	2	Insects	1	80 meters	Presumed Extant	Natural/Native occurrence	Excellent
51	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	108	33038	3767	3912177	Richardson Springs	BUT	T22N, R02E, Sec. 17, NW (M)	280	1	2	Insects	1	80 meters	Presumed Extant	Natural/Native occurrence	Excellent
12	Antrozous pallidus	pallid bat	AMACC1001 0	132	60986	66589	3912167	Chico	BUT	T22N, R01E, Sec. 26 (M)	200	1	2	Mammals	5	1 mile	Presumed Extant	Natural/Native occurrence	Unknown
16	Erethizon dorsatum	North American porcupine	AMAFJ01010	233	A5098	106805	3912167	Chico	BUT	T21N, R02E, Sec. 4 (M)	348	1	2	Mammals	1	3/5 mile	Presumed Extant	Natural/Native occurrence	Unknown
21	Erethizon dorsatum	North American porcupine	AMAFJ01010	225	A5080	106789	3912168	Ord Ferry	BUT	T22N, R01E, Sec. 30, NE (M)	154	1	2	Mammals	1	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown
29	Erethizon dorsatum	North American porcupine	AMAFJ01010	226	A5081	106790	3912168	Ord Ferry	BUT	T22N, R01E, Sec. 31, NE (M)	152	1	2	Mammals	1	1/5 mile	Presumed Extant	Natural/Native occurrence	Unknown
30	Erethizon dorsatum	North American porcupine	AMAFJ01010	495	A6512	108273	3912177	Richardson Springs	BUT	T22N, R01E, Sec. 16, NW (M)	178	1	2	Mammals	1	1/5 mile	Presumed Extant	Natural/Native occurrence	Unknown
14	Eumops perotis californicus	western mastiff bat	AMACD0201 1	45	25716	66372	3912167	Chico	BUT	T21N, R02E, Sec. 24 (M)	160	1	2	Mammals	4	1 mile	Presumed Extant	Natural/Native occurrence	Unknown
9	Lasionycteris noctivagans	silver-haired bat	AMACC0201 0	14	60986	61022	3912167	Chico	BUT	T22N, R01E, Sec. 26 (M)	200	1	2	Mammals	5	1 mile	Presumed Extant	Natural/Native occurrence	Unknown
10	Lasiurus cinereus	hoary bat	AMACC0503 2	18	60986	68775	3912167	Chico	BUT	T22N, R01E, Sec. 26 (M)	0	1	2	Mammals	5	1 mile	Presumed Extant	Natural/Native occurrence	Unknown
47	Emys marmorata	western pond turtle	ARAAD02030	775	71429	72326	3912167	Chico	BUT	T22N, R01E, Sec. 25, NW (M)	217	1	2	Reptiles	1	80 meters	Presumed Extant	Natural/Native occurrence	Fair
52	Emys marmorata	western pond turtle	ARAAD02030	1227	79584	80570	3912167	Chico	BUT	T22N, R02E, Sec. 31, SW (M)	200	1	2	Reptiles	1	specific area	Presumed Extant	Natural/Native occurrence	Good

OBJECTID	SNAME	CNAME	SENSITIVE	SITEDATE	ELMDATE	OWNERMGT	FEDLIST	CALLIST	GRANK	SRANK	RPLANTRANK	CDFWSTATUS	OTHRSTATUS
13	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	N	1978XXXX	19610508	UNKNOWN	None	None	G3T4	S4		SSC	BLM_S; USFS_S
25	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	N	1978XXXX	1978XXXX	CITY OF CHICO	None	None	G3T4	S4		SSC	BLM_S; USFS_S
2	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	Y	20110705	20110705		Threatened	Threatened	G3T2	S2			BLM_S; USFS_S
4	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	Y	20110705	20110705		Threatened	Threatened	G3T2	S2			BLM_S; USFS_S
19	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	N	20060919	20060919	DFG, UNKNOWN	Threatened	Threatened	G3T2	S2			BLM_S; USFS_S
32	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	N	20190607	20190607	PVT-PARADISE IRRIGATION	Threatened	Threatened	G3T2	S2			BLM_S; USFS_S
34	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	N	20060919	20060919	UNKNOWN, BLM	Threatened	Threatened	G3T2	S2			BLM_S; USFS_S
46	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	N	20200611	20200611	PVT	Threatened	Threatened	G3T2	S2			BLM_S; USFS_S
31	Spea hammondii	western spadefoot	N	20000405	20000405	PVT	None	None	G2G3	S3S4		SSC	BLM_S; IUCN_NT
33	Spea hammondii	western spadefoot	N	20160121	20160121	UNKNOWN	None	None	G2G3	S3S4		SSC	BLM_S; IUCN_NT
41	Spea hammondii	western spadefoot	N	20160120	20160120	UNKNOWN, CITY OF CHICO	None	None	G2G3	S3S4		SSC	BLM_S; IUCN_NT
26	Agelaius tricolor	tricolored blackbird	N	19830528	19830528	UNKNOWN	None	Threatened	G1G2	S1S2		SSC	BLM_S; IUCN_EN; NABCI_RWL; USFWS_BCC
42	Athene cunicularia	burrowing owl	N	20060515	20060515	UNKNOWN	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC
49	Athene cunicularia	burrowing owl	N	20050108	20050108	PVT-BIDWELL RANCH	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC
44	Buteo swainsoni	Swainson's hawk	N	19980518	19980518	CSU-CHICO	None	Threatened	G5	S3			BLM_S; IUCN_LC
1	Falco peregrinus anatum	American peregrine falcon	Y	20140614	20140614		Delisted	Delisted	G4T4	S3S4		FP	CDF_S
3	Falco peregrinus anatum	American peregrine falcon	Y	20140613	20140613		Delisted	Delisted	G4T4	S3S4		FP	CDF_S
5	Falco peregrinus anatum	American peregrine falcon	Y	20140628	20140628		Delisted	Delisted	G4T4	S3S4		FP	CDF_S
6	Falco peregrinus anatum	American peregrine falcon	Y	20140614	20140614		Delisted	Delisted	G4T4	S3S4		FP	CDF_S
28	Haliaeetus leucocephalus	bald eagle	N	20070204	20070204	CITY OF CHICO, PVT	Delisted	Endangered	G5	S3		FP	BLM_S; CDF_S; IUCN_LC; USFS_S
18	Laterallus jamaicensis coturniculus	California black rail	N	XXXXXXXX	XXXXXXXX	UNKNOWN	None	Threatened	G3T1	S1		FP	BLM_S; IUCN_EN; NABCI_RWL
37	Laterallus jamaicensis coturniculus	California black rail	N	20080416	20080416	CITY OF CHICO	None	Threatened	G3T1	S1		FP	BLM_S; IUCN_EN; NABCI_RWL
11	Vireo bellii pusillus	least Bell's vireo	N	19060707	19060707	UNKNOWN	Endangered	Endangered	G5T2	S2			NABCI_YWL
24	Branchinecta lynchi	vernal pool fairy shrimp	N	19960213	19960213	CITY OF CHICO	Threatened	None	G3	S3			IUCN_VU
39	Branchinecta lynchi	vernal pool fairy shrimp	N	20090305	20090305	CITY OF CHICO-BIDWELL RANCH	Threatened	None	G3	S3			IUCN_VU
17	Lepidurus packardi	vernal pool tadpole shrimp	N	20061006	19930111	UNKNOWN	Endangered	None	G4	S3			IUCN_EN
23	Lepidurus packardi	vernal pool tadpole shrimp	N	19960213	19960213	CITY OF CHICO	Endangered	None	G4	S3			IUCN_EN
27	Lepidurus packardi	vernal pool tadpole shrimp	N	20000315	20000315	UNKNOWN	Endangered	None	G4	S3			IUCN_EN
35	Lepidurus packardi	vernal pool tadpole shrimp	N	20030306	20030306	CITY OF CHICO	Endangered	None	G4	S3			IUCN_EN
43	Lepidurus packardi	vernal pool tadpole shrimp	N	20090113	20090113	CITY OF CHICO	Endangered	None	G4	S3			IUCN_EN
48	Lepidurus packardi	vernal pool tadpole shrimp	N	20090113	20090113	CITY OF CHICO	Endangered	None	G4	S3			IUCN_EN
53	Lepidurus packardi	vernal pool tadpole shrimp	N	XXXXXXXX	XXXXXXXX	UNKNOWN	Endangered	None	G4	S3			IUCN_EN
22	Linderiella occidentalis	California linderiella	N	19960213	19960213	CITY OF CHICO	None	None	G2G3	S2S3			IUCN_NT
38	Linderiella occidentalis	California linderiella	N	19880109	19880109	UNKNOWN	None	None	G2G3	S2S3			IUCN_NT
7	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	N	2008XXXX	2008XXXX	UNKNOWN	Threatened	None	G5T2Q	S2			AFS_TH
8	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	N	2013XXXX	2013XXXX	UNKNOWN, CITY OF CHICO	Threatened	None	G5T2Q	S2			AFS_TH
15	Oncorhynchus tshawytscha pop. 11	chinook salmon - Central Valley spring-run ESU	N	20100715	20100715	PVT	Threatened	Threatened	G5T2Q	S2			AFS_TH
45	Bombus crotchii	Crotch bumble bee	N	20200412	20200412	PVT	None	Candidate Endangered	G2	S2			IUCN_EN
20	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	N	20010516	20010516	CITY OF CHICO	Threatened	None	G3T2T3	S3			
36	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	N	20120630	20100630	CITY OF CHICO	Threatened	None	G3T2T3	S3			
40	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	N	199512XX	199512XX	PVT	Threatened	None	G3T2T3	S3			
50	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	N	19910614	19910614	CITY OF CHICO	Threatened	None	G3T2T3	S3			
51	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	N	19910614	19910614	CITY OF CHICO	Threatened	None	G3T2T3	S3			
12	Antrozous pallidus	pallid bat	N	19920911	19920911	UNKNOWN	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFS_S
16	Erethizon dorsatum	North American porcupine	N	19691026	19691026	UNKNOWN	None	None	G5	S3			IUCN_LC
21	Erethizon dorsatum	North American porcupine	N	2005XXXX	2005XXXX	UNKNOWN	None	None	G5	S3			IUCN_LC
29	Erethizon dorsatum	North American porcupine	N	20150629	20150629	UNKNOWN, PVT	None	None	G5	S3			IUCN_LC
30	Erethizon dorsatum	North American porcupine	N	20160907	20160907	UNKNOWN	None	None	G5	S3			IUCN_LC
14	Eumops perotis californicus	western mastiff bat	N	19970227	19970227	CITY OF DURHAM, UNKNOWN	None	None	G4G5T4	S3S4		SSC	BLM_S
9	Lasionycteris noctivagans	silver-haired bat	N	19920831	19920831	UNKNOWN	None	None	G3G4	S3S4			IUCN_LC
10	Lasiurus cinereus	hoary bat	N	19920406	19920406	UNKNOWN	None	None	G3G4	S4			IUCN_LC
47	Emys marmorata	western pond turtle	N	20080507	20080507	CITY OF CHICO	Proposed Threatened	None	G3G4	S3		SSC	BLM_S; IUCN_VU; USFS_S
52	Emys marmorata	western pond turtle	N	20100316	20100316	CITY OF CHICO	Proposed Threatened	None	G3G4	S3		SSC	BLM_S; IUCN_VU; USFS_S

OBJECTID	SNAME	CNAME	LOCATION	LOCDETAILS
13	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	BIG CHICO CREEK, 1 MILE ABOVE CONFLUENCE WITH MUD CREEK, WEST OF CHICO.	
25	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	BEAR HOLE AND SALMON HOLE (LOCALLY NAMED SWIMMING HOLES), BIG CHICO CREEK, BIDWELL PARK, ABOUT 6 MILES NE OF CHICO.	MAPPED TO STATED LOCALITIES: SALMON HOLE AND BEAR HOLE ALONG BIG CHICO CRK. ATTRIBUTED SPECIMENS COLLECTED FROM "BIG CHICO CRK, 500', BELOW 10 MI HOUSE," AND "BIG CHICO CR, 8 MI NE CHICO."
2	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS		
4	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS		
19	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	ALONG BUTTE CREEK, PARALLEL TO HONEY RUN RD, BETWEEN 1.5 MI AND 3.5 MI EAST OF SKYWAY RD INTERSECTION, EAST OF CHICO.	
32	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	LITTLE BUTTE CREEK, 0.75 MI AND 1.5 MI NE OF BUTTE CREEK CONFLUENCE, WEST OF PARADISE.	
34	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	BUTTE CREEK IN VICINITY OF HONEY RUN ROAD AT THE COVERED BRIDGE, ABOUT 7 MILES EAST OF CHICO.	MAPPED ACCORDING TO 2006 SURVEY LOCATIONS. ATTRIBUTED SPECIMENS FROM "7.5 MI E OF CHICO, 150 YDS N OF BUTTE CRK," "BUTTE CRK NEAR CHICO," AND "7 MI E CHICO, N OF BUTTE CREEK."
46	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	BUTTE CREEK, ABOUT 300 FEET DOWNSTREAM (SW) OF HWY 99, ABOUT 3.6 MILES SSE OF HWY 32 AT HWY 99 IN CHICO.	MAPPED TO PROVIDED COORDINATES.
31	Spea hammondii	western spadefoot	INTERMITTENT CREEK, TRIBUTARY TO SYCAMORE CREEK, NEAR THE INTERSECTION OF FLORAL AVENUE AND EATON ROAD, CHICO.	EASTERN PORTION OF THIS OCCURRENCE IS NOW DEVELOPED (2002), VICINITY OF CEANOTHUS AVE AT COLONIAL DR. OCCURRENCE EXTENDED WEST TO WHAT IS NOW FLORAL AVE.
33	Spea hammondii	western spadefoot	LINDO CHANNEL, FROM ABOUT 0.2-0.5 MI NW OF WILDWOOD AVE, 0.4 MI E-0.6 MI SE OF EATON RD AT MARIGOLD AVE, CHICO.	ACCESSED FROM WILDWOOD PARK. MAPPED TO INCLUDE GIVEN COORDINATES AND APPROXIMATE LOCATION OF "TWO OTHER [BREEDING POOLS] APPROX 0.5 KILOMETERS NORTH."
41	Spea hammondii	western spadefoot	SE TRIBUTARY TO SYCAMORE CREEK, EAST OF THE INTERSECTION OF FLORAL AVENUE AND EAST LASSEN AVENUE, CHICO.	2006 DETECTION REPRESENTED BY W-MOST POLYGON & 2016 DETECTION BY E-MOST POLYGON. 2016 SURVEYOR NOTED THAT THE CITY OF CHICO OWNED THE PROPERTY AT THE DETECTION SITE.
26	Agelaius tricolor	tricolored blackbird	ALONG HUMBOLDT ROAD, ON THE EASTERN EDGE OF CHICO.	1983 LOCATION DESCRIBED ONLY AS "DUMP ON HUMBOLDT ROAD LOCATED ON THE OUTSKIRTS OF CHICO." COLONY DATA STORED IN THE UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME WAS "HUMBOLDT ROAD DUMP." EXACT LOCATION UNKNOWN.
42	Athene cunicularia	burrowing owl	0.25 MIL EAST OF THE INTERSECTION OF DOE MILL RD AND BRUCE RD (AKA POTTER RD?)	THE NORTHERN BURROW WAS IN THE BASE OF A LAVA ROCK WALL; 2 ADULTS SEEN AT THIS BURROW. THE SOUTHERN BURROW WAS IN A PILE OF ROCKS; 1 ADULT SEEN AT THIS BURROW.
49	Athene cunicularia	burrowing owl	NE SIDE OF SYCAMORE CREEK FLOOD CHANNEL, 0.5 MILE NE OF THE JUNCTION OF MANZANITA AVENUE AND CACTUS AVENUE, CHICO.	SITE IS LOCATED ADJACENT TO BIDWELL PARK. THE OPPOSITE BANK OF THE CREEK IS A BERM WITH FOOT TRAFFIC AND DOGS.
44	Buteo swainsoni	Swainson's hawk	2.5 MILES ESE OF CHICO.	NEST TREE IS LOCATED IN AN ENGLISH WALNUT ORCHARD NEAR THE SOUTH END OF CHICO STATE FARM.
1	Falco peregrinus anatum	American peregrine falcon		
3	Falco peregrinus anatum	American peregrine falcon		
5	Falco peregrinus anatum	American peregrine falcon		
6	Falco peregrinus anatum	American peregrine falcon		
28	Haliaeetus leucocephalus	bald eagle	UPPER BIDWELL PARK, VICINITY OF HORSESHOE LAKE.	BIRD OBSERVED SOARING OVER HORSESHOE LAKE AND SURROUNDING AREA FOR OVER ONE HOUR BETWEEN 1300-1415.
18	Laterallus jamaicensis coturniculus	California black rail	VICINITY OF CENTERVILLE RD, NW OF FLATIRON (PEAK) & CASTLE ROCK, ABOUT 3-4 MI WEST OF PARADISE (PO).	MAPPED BY GEOREFERENCING FIGURE 2 IN RICHMOND 2008. OUTSIDE OF THE CORE SURVEY AREA.
37	Laterallus jamaicensis coturniculus	California black rail	VICINITY OF LOT L ENTRANCE, UPPER BIDWELL PARK, ABOUT 1.7 MI ENE HORSHOE LAKE & 4.4 MI SSE OF RICHARDSON SPRINGS (TOWN).	RUC: "WITHIN 15FT OF RD JUST OPPOSITE ENTRANCE TO DIVERSION DAM PARKING LOT IN UPPER BIDWELL PARK." RIC: GENERAL LOC VIA MAP (AT SAME APPROX LOC). MAPPED TO ENTRANCE TO DIVERSION DAM PARKING LOT (LOT L) BASED ON PARK WEBSITE & AERIAL PHOTOS
11	Vireo bellii pusillus	least Bell's vireo	CHICO.	SPECIMEN LOCALE STATED AS "CHICO." MAPPED GENERALLY TO CHICO. LIKELY COLLECTED FROM ONE OF THE RIPARIAN AREAS JUST OUT OF TOWN LIKE BIG CHICO CREEK, LITTLE CHICO CREEK, SANDY GULCH, OR EDGAR SLOUGH.
24	Branchinecta lynchi	vernal pool fairy shrimp	FOOTHILL PARK MITIGATION AREA, 0.2 TO 1.6 MILES E OF THE INTERSECTION OF EATON ROAD AND COHASSET ROAD, CHICO.	196 TOTAL VERNAL POOLS, IN THREE CLASSES: 17 REFERENCE VERNAL POOLS (RVP), 29 POOLS CONSTRUCTED IN 1992 (92VP) AND 150 POOL CONSTRUCTED IN 1994 (94VP). LEPIDURUS PACKARDI AND LINDERIELLA OCCIDENTALIS ALSO OBSERVED.
39	Branchinecta lynchi	vernal pool fairy shrimp	FROM ABOUT 0.5 TO 0.6 MILE NW OF CACTUS AVE AT EAST AVE, JUST NORTH AND NE OF WILDWOOD PARK IN NORTHEASTERN CHICO.	MAPPED TO LOCATIONS GIVEN ON FIELD SURVEY FORM.
17	Lepidurus packardi	vernal pool tadpole shrimp	EAST OF HIGHWAY 99 AND SOUTH OF HIGHWAY 32, VICINITY OF LITTLE CHICO CREEK, EAST OF CHICO.	1993: EXACT DETECTION LOCATION UNKNOWN; MAPPED TO GIVEN TRS, T22N R2E SEC 30. 2006: PROPERTY SURVEYED COVERED MOST OF E 1/2 SEC 30.
23	Lepidurus packardi	vernal pool tadpole shrimp	FOOTHILL PARK; NORTH OF CHICO; APPROX 0.6 KM EAST OF EATON ROAD AT COHASSET HIGHWAY.	196 TOTAL VERNAL POOLS WERE DIVIDED INTO THREE CLASSES: 17 REFERENCE VERNAL POOLS (RVP), 29 POOLS CONSTRUCTED IN 1992 (92VP) AND 150 POOLS CONSTRUCTED 1994 (94VP). BRANCHINECTA LYNCHI AND LINDERIELLA OCCIDENTALIS ALSO PRESENT.
27	Lepidurus packardi	vernal pool tadpole shrimp	SOUTHWEST OF JUNCTION OF FLORAL AVE AND EATON RD, BUT NORTH OF PROPOSED LUPINE AVE EXTENSION, CHICO.	
35	Lepidurus packardi	vernal pool tadpole shrimp	BIDWELL PARK, ABOUT 1.0 MILE DIRECTLY NORTH OF INTERSECTION OF EAST AVE AND MANZANITA AVENUE, CHICO.	
43	Lepidurus packardi	vernal pool tadpole shrimp	BIDWELL RANCH, ABOUT 0.6 MILE NW OF WILDWOOD AVE AT TUOLUMNE DR AND 1.0 MILE SE OF MARIGOLD AVE AT EATON RD.	MAPPED TO OCCUPIED POOLS VP-253 & VP-254.
48	Lepidurus packardi	vernal pool tadpole shrimp	3.0 KM ESE OF THE INTERSECTION OF EATON ROAD AND COHASSET HIGHWAY, NE OF CHICO.	LOCATION DRAWN ON 1996 MAP NOT HIGHLY ACCURATE. MAPPED TO LOCATION GIVEN FOR 2009 DETECTION AT VP-2.
53	Lepidurus packardi	vernal pool tadpole shrimp	1.6 KM ESE OF EATON ROAD AT COHASSET HIGHWAY, NORTHEAST OF CHICO.	
22	Linderiella occidentalis	California linderiella	FOOTHILL PARK; NORTH OF CHICO; APPROX. 0.6 KM EAST OF EATON ROAD AT COHASSET HIGHWAY.	196 TOTAL VERNAL POOLS WERE DIVIDED INTO THREE CLASSES: 17 REFERENCE POOLS (RVP), 29 POOLS CONSTRUCTED IN 1992 (92VP) AND 150 POOLS CONSTRUCTED IN 1994 (94VP). BRANCHINECTA LYNCHI AND LEPIDURUS PACKARDI ALSO PRESENT.
38	Linderiella occidentalis	California linderiella	NORTH SIDE OF LOWER BIDWELL PARK ABOUT 0.3 MILES ENE OF THE CIRCLE AT MANZANITA AND EAST AVE, CHICO.	LOCATION DESCRIBED AS "NEAR FENCE, ACROSS FROM PARKING LOT, N SIDE OF BIDWELL PARK." INTERPRETED AS THE DIRT PARKING LOT WHERE WILDWOOD AVE TURNS INTO UPPER PARK RD, ALONG WILDWOOD AVE ABOUT 0.3 MILES ENE OF EATON RD (MANZANITA AVE).
7	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	BUTTE CREEK FROM ITS MOUTH IN THE SACRAMENTO RIVER TO QUARTZ BOWL FALLS, ABOUT 1.4 MI UPSTREAM OF CHIMNEY ROCK.	QUARTZ BOWL FALLS IS A NATURAL BARRIER CONSIDERED THE UPSTREAM LIMIT TO ANADROMY. ROTARY SCREW TRAPS (RST) OPERATED AT ADAMS DAM 1997-1998 AND PARROTT-PHELAN DAM 1995-2008. SPAWNING AREA IS ABOVE PARROTT-PHELAN DAM.
8	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	BIG CHICO CREEK, BUTTE COUNTY.	MAPPED FROM MOUTH OF CREEK TO HIGGINS HOLE AT RM21, A NATURAL WATERFALL WHICH IS CURRENTLY THE UPPERMOST LIMIT OF ANADROMY. "FOOTHILL ZONE" BETWEEN IRON CANYON & HIGGINS HOLE & "LOWER ZONE" BELOW IRON CANYON USED FOR SPAWNING & REARING.
15	Oncorhynchus tshawytscha pop. 11	chinook salmon - Central Valley spring-run ESU	BUTTE CREEK, FROM PARROT-PHELAN DIVERSION DAM UPSTREAM TO THE CENTERVILLE DIVERSION DAM WEST OF DE SABLA, BUTTE CO.	PARROT-PHELAN DIVERSION DAM ("OKIE DAM"), APPROXATELY 3 MILES EAST OF THE JUNCTION OF HIGHWAY 99 AND SKYWAY TO CENTERVILLE DAM, 1 MILE WEST OF DE SABLA AND/OR 6.3 MILES NORTH OF PARADISE. 2010: CAUGHT AT HWY 99 & MOVED UPSTREAM.
45	Bombus crotchii	Crotch bumble bee	E LASSEN DR ABOUT 0.25 MI NW OF THE EATON RD INTXN & 0.8 MI SE OF THE INTXN OF COHASSET RD & THORNTREE DR, CHICO.	SOUTH SIDE OF SYCAMORE CREEK CORRIDOR.
20	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	VICINITY OF LINDO CHANNEL & ESPLANADE RD INTERSECTION, 0.7 MI W OF HWY 99, CHICO.	MAPPED TO PROVIDED LOCATION DESCRIPTION WAS "NORTH OF THE ESPLANADE, ON SOUTH BANK OF THE CHANNEL, ON THE NORTH SIDE OF WEST SANDY GULCH AVE." THE ESPLANADE REFERS TO THE CONTINUATION OF MAIN STREET NORTH OF THE CSU CHICO CAMPUS.
36	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	VICINITY OF HWY 99 AND LINDO CHANNEL INTERSECTION, ABOUT 0.2 MILE E OF MANGROVE AVE & 9TH AVE INTERSECTION, CHICO.	MAPPED TO PROVIDED LOCATION DESCRIPTION OF "SOUTHERN BANK OF LINDO CHANNEL... ACROSS WHERE EAST LINDO AVE INTERSECTS WITH SHERMAN AND SHERIDAN AVENUES, A BIKE PATH OPENS TO THE SITE." AREA REQUIRES MORE RESEARCH TO CONFIRM VELB PRESENCE.
40	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	DURHAM MUTUAL CANAL, 0.25 MILE DOWNSTREAM FROM FIRST DIVERSION ON BUTTE CREEK ABOVE HWY 99, 4 MILES SW OF CHICO.	ALONG DURHAM MUTUAL WATER COMPANY CANAL (IN RIGHT OF WAY), ON PRIVATE PROPERTY, ADJACENT DFG PROPERTY.
50	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	BIG CHICO CREEK, JUST SW OF THE INTERSECTION OF CENTENNIAL AVENUE AND MANZANITA AVENUE, BIDWELL PARK, CHICO.	LOCATED WITHIN A CITY PARK, WHERE MOST OF THE LAND IS MAINTAINED IN A NATURAL STATE. REPORT ON: TAXONOMY; DISTRIBUTION; LIFE HISTORY; HABITAT; FIELD TECHNIQUES & OBSERVATIONS; BEETLE RECOVERY.
51	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	UPPER BIDWELL PARK: BIG CHICO CREEK, ALONG CENTENNIAL AVENUE, 0.1 MILE SW OF THE JUNCTION OF CHICO CANYON ROAD.	LOCATED WITHIN A CITY PARK, WHERE MOST OF THE LAND IS MAINTAINED IN A NATURAL STATE. REPORT ON: TAXONOMY; DISTRIBUTION; LIFE HISTORY; HABITAT; FIELD TECHNIQUES & OBSERVATIONS; BEETLE RECOVERY.
12	Antrozous pallidus	pallid bat	CHICO.	MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN IN MANIS WITH UNCERTAINTY OF 3234.7814 M.
16	Erethizon dorsatum	North American porcupine	ALONG SKYWAY RD, ABOUT 1 MI SE OF HONEY RUN RD INTERSECTION, 1.5 MI W OF ROCKY BLUFF DR INTERSECTION, SE OF CHICO.	LOCATION DESCRIBED AS "0.7 MI S PAST BUTTE CREEK ROCK CO ON SKYWAY, S OF CHICO." BUTTE CREEK ROCK COMPANY LOCATION DETERMINED USING THE CSU CHICO DIGITAL COLLECTIONS.
21	Erethizon dorsatum	North American porcupine	VICINITY OF OAK WAY AT MUIR AVE, ABOUT 1.2 MI WSW OF HWY 32 AT EAST AVE, CHICO.	MAPPED ACCORDING TO THE PROVIDED COORDINATES. EXACT LOCATION UNKNOWN.
29	Erethizon dorsatum	North American porcupine	ABOUT 0.8 MI E OF MERIDIAN RD AT GRAPE WAY, 1.6 MI SW OF HWY 32 AT EAST AVE, CHICO.	MAPPED ACCORDING TO THE PROVIDED COORDINATES. LOCATION DESCRIBED ONLY AS "BETWEEN CHICO AND THE SACRAMENTO RIVER."
30	Erethizon dorsatum	North American porcupine	ABOUT 0.8 MI S OF HWY 99 AT EATON RD, 0.9 MI WNW OF HWY 99 AT EAST AVE, CHICO.	MAPPED ACCORDING TO THE PROVIDED COORDINATES.
14	Eumops perotis californicus	western mastiff bat	DURHAM.	EXACT LOCATION UNKNOWN. MAPPED IN THE GENERAL VICINITY OF DURHAM.
9	Lasionycteris noctivagans	silver-haired bat	CHICO.	EXACT LOCATION NOT KNOWN. MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS WITH AN UNCERTAINTY OF 3235 METERS (ABOUT 2 MILES).
10	Lasiurus cinereus	hoary bat	CHICO.	MAPPED TO INCLUDE LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTIES OF 10000 M AND 3234.7814 M.
47	Emys marmorata	western pond turtle	ALONG LITTLE CHICO CREEK, SOUTHEAST THE INTERSECTION OF HWY 99 AND LITTLE CHICO CREEK, CHICO.	
52	Emys marmorata	western pond turtle	0.1 MILE ENE OF PASEO COMPANEROS ST AT FAIR ST. NORTH OF COMANCHE CREEK AND 0.3 MILE SE OF STIRLING JUNCTION, CHICO.	FAIR STREET POND.

OBJECTID	SNAME	CNAME	ECOLOGICAL
13	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	
25	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	
2	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	TADPOLES DOCUMENTED ALONG EITHER EDGEWATER OR CONNECTED SIDE POOL HABITAT CHARACTERIZED PREDOMINANTLY BY COBBLE SUBSTRATE. MAINSTEM MACROHABITAT LOW-GRADIENT RIFFLE AND/OR RUN.
4	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	
19	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	LOW GRADIENT RIFFLES, SLOW MOVING RUNS, AND DEEP POOLS. SUBSTRATE WAS COBBLE AND BOULDER THROUGHOUT WITH SOME LARGE WOODY DEBRIS.
32	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	TADPOLES DOCUMENTED ALONG EITHER EDGEWATER OR CONNECTED SIDE POOL HABITAT CHARACTERIZED PREDOMINANTLY BY COBBLE SUBSTRATE. MAINSTEM MACROHABITAT LOW-GRADIENT RIFFLE AND/OR RUN. AREA BURNED DURING A 2018 WILDLIFE (KNOWN AS THE CAMP FIRE).
34	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	VERY LOW GRADIENT, CHARACTERIZED BY A SHALLOW FAST RUN WITH RIFFLE HABITAT AT THE UPSTREAM END. SUBSTRATE WAS COBBLE AND BOULDER. BANKS WERE HEAVILY VEGETATED.
46	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	HABITAT DESCRIBED AS DENUDED CUT BANK. AREA HAS LEGACY IMPACTS FROM HISTORIC MINING ALONG BUTTE CREEK. UPSTREAM HABITAT CONSISTS OF CDFW ECOLOGICAL RESERVE, WHEREAS DOWNSTREAM HABITAT APPEARS TO BE ORCHARDS AND GOLF COURSE.
31	Spea hammondii	western spadefoot	THIS WAS AN INTERMITTENT CREEK IN GRASSLAND SURROUNDED BY MANY VERNAL POOLS, SWALES, & INTERMITTENT CREEKS (2000). EAST & WEST PARTS OF OCCURRENCE DEVELOPED BY 2002; GRADING AND FURTHER DEVELOPED BETWEEN 2011-2016 (AERIALS).
33	Spea hammondii	western spadefoot	TEMPORARY BREEDING POOLS AT BOTTOM OF MANMADE LINDO CHANNEL, ADJACENT TO HOUSING DEVELOPMENT, PARKS, VERNAL POOLS. HEAVY USE BY PEDESTRIANS & DOG WALKERS. DEVELOPMENT IS ENCROACHING ON DRY SEASON REFUGE AREAS USED BY ADULTS & METAMORPHS.
41	Spea hammondii	western spadefoot	2006: OPEN VERNAL POOL LANDSCAPE; VEGETATED BY VARIOUS NATIVE AND NON-NATIVE GRASSES AND FORBS, INCLUDING LAYIA FREMONTII AND LIMNANTHES DOUGLASII. 2016: DETENTION POND; TOADS ALONG E BANK OF POND, W/ SHALLOW WATER W/SUBMERGED GRASSES.
26	Agelaius tricolor	tricolored blackbird	HABITAT PREDOMINANTLY A DENSE BED OF LARGE PURPLE THISTLE AT DUMP SITE, ADJACENT TO ROLLING, ROCKY FOOTHILL GRASSLANDS. THISTLE BED NOT MORE THAN 1.25 ACRES.
42	Athene cunicularia	burrowing owl	TO THE EAST & SOUTH IS OPEN GRASSLAND WITH 308% SLOPE. TO THE NORTH AND WEST IS ONGOING DEVELOPMENT.
49	Athene cunicularia	burrowing owl	BURROW IS LOCATED IN A MUDSTONE LEDGE, OVERLOOKING A FLOOD CHANNEL; SURROUNDING AREA IS OPEN GRASSLAND.
44	Buteo swainsoni	Swainson's hawk	NEST TREE IS AN ENGLISH WALNUT IN THE NORTH (OUTER) ROW OF THE ORCHARD; NEST IS LOCATED 20+ FEET IN THE TREE. ADJACENT FIELDS TO THE NORTH FOR 1 MILE PLANTED IN WHEAT, ROW CROPS, OR FALLOW/WEEDY VEGETATION.
1	Falco peregrinus anatum	American peregrine falcon	NEST SITE IS A CLIFF SURROUNDED BY VALLEY HARDWOOD/CONIFER HABITAT.
3	Falco peregrinus anatum	American peregrine falcon	FOOTHILL WOODLAND ON CLIFF FACE WITH SCATTERED GRASSLAND PATCHES.
5	Falco peregrinus anatum	American peregrine falcon	VERTICAL CLIFF FACES OF TUSCAN ROCK FORMATION IN FOOTHILL WOODLAND & BLUE OAK SAVANNAH. ON TOP OF THE CLIFF IS A A DISC GOLF COURSE AND HIKING TRAIL (RIM TRAIL). AT THE BASE OF THE CLIFF IS THE GUARDIAN TRAIL. AREA BURNED IN 2018 CAMP FIRE.
6	Falco peregrinus anatum	American peregrine falcon	NEST IS LOCATED ON A LARGE CLIFF IN FOOTHILL HARWOOD/CONIFER HABITAT. SURROUNDING VEGETATION BURNED IN THE 2018 CAMP FIRE.
28	Haliaeetus leucocephalus	bald eagle	GRASSLANDS SURROUNDING HORSESHOE LAKE TRANSITIONING INTO BLUE OAK AND MIXED OAK SAVANNAH AND WOODLANDS WITH AN INCREASE IN ELEVATION.
18	Laterallus jamaicensis coturniculus	California black rail	SURVEY MARSHES GENERALLY SMALL, GENTLY SLOPED, DENSELY VEGETATED & HIGHLY FRAGMENTED (SURROUNDED BY UNSUITABLE HABITAT). WATER SOURCES PRIMARILY FROM IRRIGATION DITCHES. OCCURRENCE REPRESENTS PART OF A METAPOPULATION IN SIERRA FOOTHILLS.
37	Laterallus jamaicensis coturniculus	California black rail	BLUE OAK SAVANNAH GRASSLAND WITH CLUSTER OF 6-7 YR-ROUND SEEP SPRINGS IN 1-2 ACRE AREA. S-FACING SLOPE OF CASCADE VOLCANIC FOOTHILL CYN. RUC: FOUND IN DENSE VEG AT BASE OF WILLOW; SITE QUALITY MARKED AS "GOOD." OUTSIDE RIC CORE STUDY AREA.
11	Vireo bellii pusillus	least Bell's vireo	
24	Branchinecta lynchi	vernal pool fairy shrimp	VERNAL POOL MITIGATION PRESERVE WITH NORTHERN HARDPAN VERNAL POOL HABITAT; BOTH CONSTRUCTED AND NATURAL (REFERENCE) VERNAL POOLS DOMINATED BY HERBACEOUS PLANTS; ON TUSCAN FORMATION SOILS (LAVA CAPPED).
39	Branchinecta lynchi	vernal pool fairy shrimp	MIMA MOUND FORMATION ON MOSTLY NON-NATIVE ANNUAL GRASSLANDS. BIDWELL PARK IS EAST AND SOUTH, SYCAMORE CREEK CHANNEL AND SUBDIVISION TO WEST. LEPIDURUS PACKARDI AND LINDERIELLA OCCIDENTALIS ALSO FOUND AT THIS SITE. SITE USED FOR GRAZING.
17	Lepidurus packardi	vernal pool tadpole shrimp	NATURAL VERNAL POOLS. BRANCHINECTA CYSTS (SPECIES UNKNOWN) FOUND IN 2006. 2013 AIR PHOTOS SHOW W 1/2 OF SECTION HAS BEEN DEVELOPED, & DEVELOPMENT STARTING IN SE 1/4. NE 1/4 PROTECTED (MERIAM PARK PRESERVE, CALIFORNIAOPENLANDS.ORG).
23	Lepidurus packardi	vernal pool tadpole shrimp	VERNAL POOL MITIGATION PRESERVE CONSISTS OF NORTHERN HARDPAN VERNAL POOL HABITAT; BOTH REFERENCE POOLS AND CONSTRUCTED POOLS ARE DOMINATED BY HERBACEOUS VERNAL POOL PLANTS; SOILS ARE TUSCAN FORMATION SOIL (LAVA CAPPED).
27	Lepidurus packardi	vernal pool tadpole shrimp	NON-NATIVE GRASSLAND WITH VERNAL POOLS AND MANY NATIVE FORBS. SITE IS CURRENTLY OPEN SPACE WITH DEVELOPMENT TO THE WEST AND SOUTH.
35	Lepidurus packardi	vernal pool tadpole shrimp	VERNAL POOLS AND SWALES IN GRASSLAND. SURROUNDED BY GRAZING LAND AND OPEN SPACE.
43	Lepidurus packardi	vernal pool tadpole shrimp	VERNAL POOLS IN ANNUAL GRASSLAND USED FOR GRAZING. LINDERIELLA OCCIDENTALIS CO-OCCURRED.
48	Lepidurus packardi	vernal pool tadpole shrimp	2009: VERNAL POOL IN GRAZED ANNUAL GRASSLAND.
53	Lepidurus packardi	vernal pool tadpole shrimp	
22	Linderiella occidentalis	California linderiella	VERNAL POOL MITIGATION PRESERVE CONSISTS OF NORTHERN HARDPAN VERNAL POOL HABITAT; BOTH CONSTRUCTED AND NATURAL (REFERENCE) VERNAL POOLS ARE DOMINATED BY HERBACEOUS VERNAL POOL PLANTS; SOILS ARE TUSCAN FORMATION SOILS (LAVA CAPPED).
38	Linderiella occidentalis	California linderiella	GRASSLAND POOL. RED MUD AND GRASS BOTTOM, WITH CLEAR WATER.
7	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	"MODERATE" POTENTIAL FOR STEELHEAD RESTORATION; SCREENS, LADDERS, INC. SPRING FLOWS BEGUN IN 1990S. LOWER CK INTERMITTENT, USED AS SEASONAL REARING HABITAT (W/SUTTER BYPASS). UPPER CK SPAWNING AREA MAY HAVE NO OCEAN ACCESS IN DROUGHT YEARS.
8	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	STEELHEAD (SH) "PROBABLY PREDOMINANT" HISTORICALLY; LOSS OF HABITAT MAY HAVE LED TO DECLINE & REPLACEMENT BY RESIDENT TROUT. CDFW TREATED FOOTHILL ZONE OF CREEK WITH ROTENONE IN 1986, & PLANTED WITH STEELHEAD IN 1987, 1988 & 1990/91.
15	Oncorhynchus tshawytscha pop. 11	chinook salmon - Central Valley spring-run ESU	THE STOCK PURITY IS CONSIDERED GOOD. BUTTE CRK HAS A SELF-SUSTAINING POPULATION THAT IS THOUGHT TO BE DECLINING. MEAN RUN SIZE FOR THE YEARS 1980-89 WAS 500 FISH. MAPPED SPAWNING AND/OR HOLDING AREAS. AVG RUN OF 6K FISH PAST 10 YRS (2010).
45	Bombus crotchii	Crotch bumble bee	SUBURBAN NEIGHBORHOOD ADJACENT TO VERNAL POOL NATURE RESERVE AND PROTECTED WATERWAY.
20	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	SANDY GULCH AVE LIKELY REFERS TO LINDO AVE. ANECDOTALLY DETECTED WITHIN LINDO CHANNEL SOMETIME PRIOR TO 2000; MENTIONED IN EIP ASSOCIATES' DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE STORM DRAINAGE MASTER PLAN.
36	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	THIS SITE WAS SET UP AS A MITIGATION SITE IN 1998. 15 ELDERBERRY SHRUBS WERE TRANSPLANTED AND 60 SEEDLINGS PLANTED IN 1998. NONE OF THE TRANSPLANTS SURVIVED; SEEDLING SURVIVORSHIP ESTIMATED AT 56% IN 2005 AND 53% IN 2007.
40	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	
50	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	HABITAT CONSISTS OF LUSH RIPARIAN WOODLAND IN A CORRIDOR AROUND BIG CHICO CREEK; NUMEROUS ELDERBERRIES.
51	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	HABITAT CONSISTS OF A LUSH RIPARIAN CORRIDOR AROUND BIG CHICO CREEK; NUMEROUS ELDERBERRIES.
12	Antrozous pallidus	pallid bat	
16	Erethizon dorsatum	North American porcupine	
21	Erethizon dorsatum	North American porcupine	
29	Erethizon dorsatum	North American porcupine	
30	Erethizon dorsatum	North American porcupine	
14	Eumops perotis californicus	western mastiff bat	
9	Lasionycteris noctivagans	silver-haired bat	
10	Lasiurus cinereus	hoary bat	
47	Emys marmorata	western pond turtle	HABITAT CONSISTS OF A CREEK SURROUNDED BY THIN STRIP OF VALLEY RIPARIAN FOREST AND URBAN. SHALLOW WATER (8" DEEP), LARGE COBBLES, MUDDY BANK NEARBY. AREA SURROUNDED BY RIPARIAN FOREST (100 FT STRIP IN PLACES) AND URBAN DEVELOPMENT.
52	Emys marmorata	western pond turtle	ISOLATED POND NEXT TO THE PARKING LOT.

OBJECTID	SNAME	CNAME	GENERAL	THREAT	THREATLIST
13	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	COLLECTED ON 8 MAY 1961. NONE DETECTED DURING 8 SITE VISITS BETWEEN 1973 AND 1978. ACCORDING TO JENNINGS, RANA BOYLII IS EXTIRPATED FROM THIS VICINITY.	BULLFROGS OBSERVED HERE IN THE 1970S.	Non-native animal impacts
25	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	12 COLLECTED IN 1945. COLLECTED IN 1960 AND1963. DETECTED DURING EIGHT SITE VISITS BETWEEN 1973-1978.		
2	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS			
4	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS			
19	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	2 ADULTS, 17 JUVENILES, AND 27 YOUNG-OF-YEAR FOUND IN 2006.	BULLFROGS OBSERVED.	Non-native animal impacts
32	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	10 LARVAE AND 4 JUVENILES OBSERVED BETWEEN 15 JUN AND 5 JUL 2011. 1 ADULT OBSERVED ON 7 JUN 2019.	BULLFROGS OBSERVED.	Non-native animal impacts
34	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	COLLECTIONS WERE MADE IN THIS VICINITY ON 2 JAN 1946, 20 MAR 1948, 22 APR 1952, AND 7 MAY 1961. 2 TADPOLES AND 20 YOUNG-OF-YEAR FOUND IN 2006.		
46	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	1 INCIDENTALLY FOUND AND PHOTOGRAPHED ON 11 JUN 2020 BY CALTRANS BIOLOGIST WHILE SURVEYING FOR THE BUTTE CREEK BRIDGE PROJECT.	TRASH. UNSHELTERED PERSONS. IN-STREAM SUBSTRATE DISTURBANCE ASSOCIATED WITH MODERN GOLD PANNING.	Mining; Vandalism/dumping/litter
31	Spea hammondii	western spadefoot	500+ TADPOLES OBSERVED ON 5 APR 2000. FROM AERIAL IMAGERY THE HABITAT AT THE SITE HAS DRASTICALLY CHANGED FROM 2002-2016; IT'S UNKNOWN IF SPADEFOOTS ARE STILL PRESENT (2016), BUT WILL LIKELY BE EXTIRPATED IN THE FUTURE DUE TO DEVELOPMENT.	SURROUNDING DEVELOPMENT MAY MAKE THE STREAM PERENNIAL (2000). AIR PHOTOS SHOW SITE HAS BEEN PARTIALLY DEVELOPED (2016).	Development
33	Spea hammondii	western spadefoot	EGGS, LARVAE, & UNKNOWN NUMBER OBSERVED IN 2014 & 2015. 3 ADULTS HEARD, THEN SEEN (AND PHOTODOCUMENTED) DUING NIGHTTIME SURVEY ON 21 JAN 2016.	DEVELOPMENT.	
41	Spea hammondii	western spadefoot	MANY INDIVIDUALS DETECTED ON 6 APR 2006. FEWER THAN 5 ADULTS HEARD, THEN SEEN (AND PHOTODOCUMENTED) ON 20 JAN 2016.	THREATENED BY ENCROACHING DEVELOPMENT, NIGHT TIME ORV USE THROUGH THE VERNAL POOLS, AND ILLEGAL DUMPING (2006).	Development; ORV activity; Vandalism/dumping/litter
26	Agelaius tricolor	tricolored blackbird	AN ESTIMATED 150 PAIRS OBSERVED ON 28 MAY 1983; BREEDING SUGGESTED BY THE OBSERVATION OF ADULTS CARRYING FOOD TO THISTLE BED.		
42	Athene cunicularia	burrowing owl	2 ACTIVE BURROWS AND OWLS WERE OBSERVED SEVERAL TIMES IN FEB 2006. THE BURROWS WERE REPORTED DESTROYED BY HEAVY EQUIPMENT IN APR 2006.	THREATENED BY ON-GOING DEVELOPMENT.	Development
49	Athene cunicularia	burrowing owl	1 ADULT OBSERVED AT THE BURROW ON 8 JAN 2005.		
44	Buteo swainsoni	Swainson's hawk	2 ADULTS OBSERVED NESTING ON 18 MAY 1998.	THREATENED BY HABITAT LOSS TO ENCROACHMENT BY THE CITY OF CHICO.	Development
1	Falco peregrinus anatum	American peregrine falcon		THREATENED BY RESIDENTIAL DEVELOPMENT AND RECREATION SUCH AS ROCK CLIMBING & HIKING ABOVE AND BELOW CLIFFS.	Recreational use (non-ORV)
3	Falco peregrinus anatum	American peregrine falcon			
5	Falco peregrinus anatum	American peregrine falcon		HUMAN RECREATION IN THE AREA MAY BE HINDERING NESTING (DISC GOLF, HIKING, MOUNTAIN BIKING). HELICOPTER MANEUVERS.	Other; Recreational use (non-ORV)
6	Falco peregrinus anatum	American peregrine falcon		THREATENED BY PG&E SALE OF LAND UNDER THE STEWARDSHIP COUNCIL AND SUBSEQUENT DEVELOPMENT.	Development
28	Haliaeetus leucocephalus	bald eagle	WINTERING SITE. 1 ADULT OBSERVED ON 4 FEB 2007.		
18	Laterallus jamaicensis coturniculus	California black rail	CA BLACK RAILS DETECTED BY RICHMOND ET AL AT 3 SITES DURING AT LEAST 1 PHASE OF CALL-PLAYBACK SURVEYS IN 1994-2006. PART OF A YEAR-ROUND RESIDENT BREEDING POPULATION IN THE SIERRA FOOTHILLS, DISCONTINUOUS WITH THE SF BAY-DELTA POPULATION.		
37	Laterallus jamaicensis coturniculus	California black rail	1+ DETECTED BY RICHMOND ET AL AT LEAST 1X IN 1994-2006. 1 ADULT OBS BY RUCKLE ON 16 APR 2008; 4+ MORE HEARD NEARBY ON SAME DAY & SAME SEASON. PART OF YR-ROUND RESIDENT BREEDING POP IN SIERRA FOOTHILLS, DISCONTINUOUS WITH SF BAY-DELTA POP.		
11	Vireo bellii pusillus	least Bell's vireo	AN ADULT MALE WAS COLLECTED IN THE MIDDLE OF THE BREEDING SEASON ON 7 JUL 1906.		
24	Branchinecta lynchi	vernal pool fairy shrimp	FOUND IN 9 OF 32 POOLS SURVEYED, JAN 1993. FOUND IN 57 POOLS (5 IN RVP, 8 IN 92VP & 44 IN 94VP), JAN-FEB 1995. FOUND IN 97 POOLS (16 IN 92VP, 74 IN 94VP & 7 IN RVP), JAN-FEB 1996.	WETLAND MITIGATION AREA BORDERED BY EXISTING RESIDENTIAL TO THE SOUTHWEST.	Development
39	Branchinecta lynchi	vernal pool fairy shrimp	HUNDREDS DETECTED IN 3 POOLS, 5 MAR 2009.		
17	Lepidurus packardi	vernal pool tadpole shrimp	FOUND IN 3 OF 49 FEATURES SURVEYED IN 1993 (SUGNET RECORD #193). NONE FOUND IN DRY-SEASON SAMPLING, 6 OCT 2006.	DEVELOPMENT.	Development
23	Lepidurus packardi	vernal pool tadpole shrimp	1995: 86 TOTAL VERNAL POOLS (3 RVP, 18 92VP & 65 94VP) HAD L. PACKDARDI ON 1/19, 1/20 & 2/17. 1996: 62 TOTAL VERNAL POOLS (2 RVP, 15 92VP & 45 94VP) HAD L. PACKARDI ON 1/15, 1/16, 2/12 & 2/13.	MITIGATION AREA IS BORDERED BY EXISTING RESIDENTIAL DEVELOPMENT TO THE SOUTHWEST.	Other
27	Lepidurus packardi	vernal pool tadpole shrimp	10+ OBSERVED DURING SURVEYS CONDUCTED 8 & 22 FEB, 7, 15 & 21 MAR, 5 & 20 APR 2000.		
35	Lepidurus packardi	vernal pool tadpole shrimp	1 INDIVIDUAL FOUND.	OFF-ROAD VEHICLES.	ORV activity
43	Lepidurus packardi	vernal pool tadpole shrimp	10S OR 100S OF ADULTS FOUND IN 2 POOLS ON 1 JAN 2009.		
48	Lepidurus packardi	vernal pool tadpole shrimp	DETECTED ON UNKNOWN DATE (DATA RECEIVED FROM USFWS-1996). 10S TO 100S DETECTED ON 13 JAN 2009.		
53	Lepidurus packardi	vernal pool tadpole shrimp	UNKNOWN NUMBERS OF TADPOLE SHRIMP OBSERVED AT INTERMITTENT POND.		
22	Linderiella occidentalis	California linderiella	1995: 62 TOTAL VERNAL POOLS (1 RVP, 11 92VP & 50 94VP) HAD L. OCCIDENTALIS ON 1/19, 1/20 & 2/17. 1996: 91 TOTAL VERNAL POOLS (3 RVP, 18 92VP & 70 94VP) WERE OBSERVED TO HAVE L. OCCIDENTALIS ON 1/15, 1/16, 2/12 & 2/13.	WETLAND MITIGATION AREA IS BORDERED BY EXISTING RESIDENTIAL DEVELOPMENT TO THE SOUTHWEST.	Other
38	Linderiella occidentalis	California linderiella	COLLECTED BY ERIKSEN ON 9 JAN 1988; IN ERIKSEN COLLECTION, A2-151 (DATABASE RECORD 279).		
7	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	STATUS OF THIS RUN IS LARGELY UNKNOWN. YEARLY CATCH AT PARROTT-PHELAN DAM RSTS RANGED FROM 9 TO 267 (AVERAGE 164), 1995-2005. O. MYKISS OF ALL LIFE STAGES WERE DETECTED, INCLUDING SMOLTS AND SILVERY PARR.		
8	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	ANECDOTES OF SH RUNS DATE BACK TO 1938. RUNS DECLINED IN 1970S. DFW ELECTROFISHING 1983-84 FOUND LOW LEVELS OF PRESUMED STEELHEAD. 1 ADULT & 10 JUVENILES OBSERVED IN 1999. 1 PRESUMED STEELHEAD OBSERVED IN SNORKEL SURVEY IN 2013.	LOW FLOWS DUE TO DROUGHT, DIVERSIONS (PARROTT-PHELAN PUMP). GRAVEL MINING. POLLUTED RUNOFF. INTROGRESSION W/HATCHERY SH.	Altered flood/tidal/hydrologic regime; Hybridization; Mining; Pollution; Surface water diversion
15	Oncorhynchus tshawytscha pop. 11	chinook salmon - Central Valley spring-run ESU	BUTTE CRK HAS A HIGH RESTORATION POTENTIAL. ADULTS ARE SAMPLED ANNUALLY IN SEP SPECIAL SURVEY, SAMPLING OUT-MIGRANTS NOV 1995 TO JUN 1996. 1997 ADULT ESCAPEMENT, 635 FISH. 123 WERE CAPTURED AT HWY 99 & RELOCATED UPSTREAM ON 15 JUL 2010.	FISH PASSAGE PROBLEMS, UNSCREENED DIVERSIONS, POOR WATER QUALITY (HIGH TEMPERATURES, AG RUNOFF, INADEQUATE FLOWS).	Altered thermal regime; Dam/Inundation; Degraded water quality; Surface water diversion
45	Bombus crotchii	Crotch bumble bee	1 QUEEN OBSERVED ON 12 APR 2020. OTHER BOMBUS WORKERS AND MALES OBSERVED THAT SEASON, BUT THIS WAS THE ONLY B. CROTCHII.		
20	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	A SINGLE MATURE FEMALE BEETLE WAS OBSERVED ON A LARGE BLUE ELDERBERRY BUSH DURING 12 MAR-16 MAY 2001. A SIX MILE STRETCH OF LINDO CHANNEL (HISTORICALLY SANDY GULCH) WAS SURVEYED BY GEO ENVIRONMENTAL MANAGEMENT.		
36	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	NO VELB DETECTED DURING 31 MAR & 10 JUN SURVEYS 2009; "A NUMBER OF POSSIBLE EXIT HOLES" WERE OBS ON 5 SHRUBS. NO VELB DETECTED DURING 23 APR & 30 JUN 2010, HOWEVER, 5 POTENTIALLY NEW EXIT HOLES WERE FOUND. 0 DETECTED IN 2011 & 2012.		
40	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	EXIT HOLES OBSERVED IN ELDERBERRY BUSHES.	DEVELOPMENT.	Development
50	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	SEVERAL OLD, CLEAN-CUT EXIT HOLES OBSERVED IN LIVE WOOD.		
51	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	ONE CLUMP OBSERVED WITH A RECENT EXIT HOLE.		
12	Antrozous pallidus	pallid bat	1 FEMALE AND 1 MALE COLLECTED BY WILLIAM E. RAINEY 7 JUL AND 11 SEP 1992, MVZ #182353 AND 182354, RESPECTIVELY.		
16	Erethizon dorsatum	North American porcupine	1 MALE PORCUPINE COLLECTED (CSUC# 2633) ON 26 OCT 1969 BY P. MARCH.		
21	Erethizon dorsatum	North American porcupine	1 PORCUPINE OBSERVED IN THE SPRING OF 2005; INDIVIDUAL WAS LIKELY DISPATCHED (SHOT, UNCONFIRMED). THIS IS BASED ON A SECONDARY REPORT BY A RESIDENT OF CHICO ALONG OAK WAY.	ANIMAL REPORTED AS SHOT.	Other
29	Erethizon dorsatum	North American porcupine	1 PORCUPINE FOUND IN A PRIVATE YARD EATING A TOMATO PLANT ON 29 JUN 2015.		
30	Erethizon dorsatum	North American porcupine	1 PORCUPINE FOUND IN THE BACKYARD OF A DENSE RESIDENTIAL AREA ON 7 SEP 2016.		
14	Eumops perotis californicus	western mastiff bat	1 FEMALE SPECIMEN COLLECTED BY DENNY G. CONSTANTINE ON 27 FEB 1997, MVZ #186399.		
9	Lasionycteris noctivagans	silver-haired bat	ALL COLLECTED AT "CHICO" & DEPOSITED AT MVZ. 1972: 1 MALE & 1 FEMALE (#174677 & 174678). 1985: 2 MALES & 1 FEMALE (#182486-182488). 1990: 1 MALE & 2 FEMALES (#182368-182370). 1991: 2 FEMALES (#182371 & 182372). 1992: 1 MALE (#182373).		
10	Lasiurus cinereus	hoary bat	1 MALE SPECIMEN (KU #140158) COLLECTED BY G.L. MCGRATH ON 7 MAY 1976. 1 FEMALE SPECIMEN (MVZ #182405) COLLECTED BY WILLIAM E. RAINEY ON 6 APR 1992. BOTH COLLECTED AT "CHICO."		
47	Emys marmorata	western pond turtle	1 VERY LARGE FEMALE TURTLE OBSERVED ON 7 MAY 2008. TURTLE OBSERVED HUNTING/SUNNING ON IMMERSED BRANCH. HALF-EATEN CRAYFISH WITHIN 10 FEET OF TURTLE.	THREATENED BY HUMAN DISTURBANCE AND PREDATION.	Other
52	Emys marmorata	western pond turtle	THE SITE IS UNDER THE LONG TERM POPULATION MONITORING PROJECT. 4 ADULTS WERE OBSERVED ON 16 MAR 2010.	5 RED EARED SLIDERS WERE OBSERVED IN THE POND.	Non-native animal impacts

OBJECTID	SNAME	CNAME	LASTUPDATE	AVLCODE	Near_Miles	Direction
13	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	20180904	20901	4.766737938	WEST
25	Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	20180913	20301	4.447257519	NORTH
2	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	20171107	99901	2.877665281	NORTHEAST
4	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	20171107	99901	2.877665281	NORTHEAST
19	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	20180831	20301	1.432306886	EAST
32	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	20190809	20301	4.822497845	EAST
34	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	20180831	20301	3.496834517	EAST
46	Rana boylii pop. 2	foothill yellow-legged frog - Feather River DPS	20221027	20101	0.818645477	SOUTHEAST
31	Spea hammondii	western spadefoot	20160203	20301	4.146106243	NORTH
33	Spea hammondii	western spadefoot	20160205	20301	3.716470003	NORTH
41	Spea hammondii	western spadefoot	20190502	20201	4.662405014	NORTH
26	Agelaius tricolor	tricolored blackbird	20160706	20301	1.796362758	NORTH
42	Athene cunicularia	burrowing owl	20080626	20201	0.858843744	NORTH
49	Athene cunicularia	burrowing owl	20050201	20101	3.62198019	NORTH
44	Buteo swainsoni	Swainson's hawk	19980603	20101	1.541298985	SOUTH
1	Falco peregrinus anatum	American peregrine falcon	20200730	99901	1.368658543	EAST
3	Falco peregrinus anatum	American peregrine falcon	20200730	99901	2.877665281	NORTHEAST
5	Falco peregrinus anatum	American peregrine falcon	20200730	99901	2.877665281	NORTHEAST
6	Falco peregrinus anatum	American peregrine falcon	20200730	99901	2.877665281	NORTHEAST
28	Haliaeetus leucocephalus	bald eagle	20070510	20501	3.880450726	NORTH
18	Laterallus jamaicensis coturniculus	California black rail	20090922	20301	4.414958	NORTHEAST
37	Laterallus jamaicensis coturniculus	California black rail	20090924	20401	4.66145134	NORTH
11	Vireo bellii pusillus	least Bell's vireo	20140219	20905	1.030939221	NORTHWEST
24	Branchinecta lynchi	vernal pool fairy shrimp	20140806	20203	4.424751282	NORTH
39	Branchinecta lynchi	vernal pool fairy shrimp	20141029	20201	3.625352144	NORTH
17	Lepidurus packardi	vernal pool tadpole shrimp	20150505	20701	0.906092048	NORTH
23	Lepidurus packardi	vernal pool tadpole shrimp	19961115	20203	4.424751282	NORTH
27	Lepidurus packardi	vernal pool tadpole shrimp	20041117	20501	4.312743664	NORTH
35	Lepidurus packardi	vernal pool tadpole shrimp	20041116	20401	4.374197006	NORTH
43	Lepidurus packardi	vernal pool tadpole shrimp	20141229	20201	3.717588663	NORTH
48	Lepidurus packardi	vernal pool tadpole shrimp	20141229	20101	4.215328217	NORTH
53	Lepidurus packardi	vernal pool tadpole shrimp	19960628	20201	4.440198421	NORTH
22	Linderiella occidentalis	California linderiella	20150501	20203	4.424751282	NORTH
38	Linderiella occidentalis	California linderiella	20200528	20401	3.637633085	NORTH
7	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	20140220	20301	0.484068364	SOUTHEAST
8	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	20140113	20301	1.960859776	NORTHWEST
15	Oncorhynchus tshawytscha pop. 11	chinook salmon - Central Valley spring-run ESU	20100719	20201	1.374481559	EAST
45	Bombus crotchii	Crotch bumble bee	20201009	20101	4.73113966	NORTH
20	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	20150218	20601	3.238048792	NORTHWEST
36	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	20150225	20401	3.191501617	NORTHWEST
40	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	19991115	20301	0.637886524	SOUTHEAST
50	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	19980811	20101	3.062559605	NORTH
51	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	19980811	20101	3.554894209	NORTH
12	Antrozous pallidus	pallid bat	20060929	20905	1.030939221	NORTHWEST
16	Erethizon dorsatum	North American porcupine	20170619	20701	0.494544864	SOUTHEAST
21	Erethizon dorsatum	North American porcupine	20170616	20601	4.928451061	WEST
29	Erethizon dorsatum	North American porcupine	20170717	20501	4.984907627	WEST
30	Erethizon dorsatum	North American porcupine	20170925	20501	4.802953243	NORTHWEST
14	Eumops perotis californicus	western mastiff bat	20061102	20904	2.727192879	SOUTH
9	Lasionycteris noctivagans	silver-haired bat	20050415	20905	1.030939221	NORTHWEST
10	Lasiurus cinereus	hoary bat	20070315	20905	1.030939221	NORTHWEST
47	Emys marmorata	western pond turtle	20080604	20101	1.734473348	NORTH
52	Emys marmorata	western pond turtle	20100818	20201	0.262500495	NORTHEAST

Scientific Name	Common Name	Family	Lifeform	CRPR	CRPR ChangeDate	GRank	SRank	OtherStatus	CESA	FESA	Blooming Period	Preliminary Potenital to Occur
Astragalus pauperculus	depauperate milk-vetch	Fabaceae	annual herb	4.3		G4	S4		None	None	Mar-Jun	Yes.
Azolla microphylla	Mexican mosquito fern	Azollaceae	annual/perennial herb	4.2		G5	S4		None	None	Aug	Yes.
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	1B.2		G2	S2	BLM_S; USFS_S	None	None	Mar-Jun	Yes.
Brodiaea rosea ssp. vallicola	valley brodiaea	Themidaceae	perennial bulbiferous herb	4.2	43472	G5T3	S3		None	None	Apr-May(Jun)	Yes.
Calycadenia oppositifolia	Butte County calycadenia	Asteraceae	annual herb	4.2	38226	G3	S3	USFS_S	None	None	Apr-Jul	Yes.
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	Convolvulaceae	perennial rhizomatous herb	4.2	39933	G5T3	S3		None	None	May-Jul	Yes.
Campylopodiella stenocarpa	flagella-like atractylocarpus	Dicranaceae	moss	CBR	44882.62907	G5	S1?		None	None		Yes.
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	Brassicaceae	perennial rhizomatous herb	1B.2	41009	G3G5T2Q	S2		None	None	Feb-May	No.
Castilleja rubicundula var. rubicundula	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	1B.2		G5T2	S2	BLM_S; SB_UCSC	None	None	Apr-Jun	Yes.
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	Onagraceae	annual herb	1B.2		G5T3	S3	BLM_S; SB_UCBG;	None	None	May-Jul	Yes.
Claytonia palustris	marsh claytonia	Montiaceae	perennial herb	4.3		G4	S4		None	None	May-Oct	No.
Cryptantha rostellata	red-stemmed cryptantha	Boraginaceae	annual herb	4.2	43277	G4	S3		None	None	Apr-Jun	Yes.
Eriogonum umbellatum var. ahartii	Ahart's buckwheat	Polygonaceae	perennial herb	1B.2	40511.59828	G5T3	S3	SB_UCSC; USFS_S	None	None	Jun-Sep	Yes.
Erythranthe glaucescens	shield-bracted monkeyflower	Phrymaceae	annual herb	4.3		G3G4	S3S4		None	None	Feb-Aug(Sep)	Yes.
Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	annual herb	1B.2		G1	S1		None	FT	Jul-Sep(Oct)	Yes.
Fritillaria eastwoodiae	Butte County fritillary	Liliaceae	perennial bulbiferous herb	3.2	39933	G3Q	S3	USFS_S	None	None	Mar-Jun	Yes.
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	1B.2		G2G3	S2S3	BLM_S; SB_CalBG/RSAB	None	None	Feb-Apr	Yes.
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	4.2		G3	S3		None	None	Mar-Jun	Yes.
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb	1B.2	40182.60625	G5T3	S3	SB_CalBG/RSABG; SB_UCBG	None	None	Jun-Sep	Yes.
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	2B.1	41437.68959	G3	S3	SB_CalBG/RSABG; SB_SBBG;	None	None	Sep-May	Yes.
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Juncaceae	annual herb	1B.1		G2T2	S2	BLM_S; USFS_S	None	None	Mar-Jun	Yes.
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	annual herb	4.2		G4	S4	SB_UCBG	None	None	Mar-Jun	Yes.
Lilium humboldtii ssp. humboldtii	Humboldt lily	Liliaceae	perennial bulbiferous herb	4.2		G4T3	S3	SB_UCSC	None	None	May-Jul(Aug)	Yes.
Limnanthes floccosa ssp. californica	Butte County meadowfoam	Limnanthaceae	annual herb	1B.1		G4T1	S1	SB_CalBG/RSABG	CE	FE	Mar-May	Yes.
Limnanthes floccosa ssp. floccosa	woolly meadowfoam	Limnanthaceae	annual herb	4.2		G4T4	S3	SB_UCBG	None	None	Mar-May(Jun)	Yes.
Monardella venosa	veiny monardella	Lamiaceae	annual herb	1B.1		G1	S1	SB_CalBG/RSABG; SB_UCBG	None	None	May-Jul	Yes.
Navarretia heterandra	Tehama navarretia	Polemoniaceae	annual herb	4.3		G4	S4		None	None	Apr-Jun	Yes.
Paronychia ahartii	Ahart's paronychia	Caryophyllaceae	annual herb	1B.1		G3	S3	BLM_S	None	None	Feb-Jun	Yes.
Polygonum bidwelliae	Bidwell's knotweed	Polygonaceae	annual herb	4.3		G4	S4		None	None	Apr-Jul	Yes.
Rhynchospora californica	California beaked-rush	Cyperaceae	perennial rhizomatous herb	1B.1		G1	S1	SB_UCSC	None	None	May-Jul	No.
Rhynchospora capitellata	brownish beaked-rush	Cyperaceae	perennial herb	2B.2	41437.70816	G5	S1	IUCN_LC	None	None	Jul-Aug	No.
Sidalcea robusta	Butte County checkerbloom	Malvaceae	perennial rhizomatous herb	1B.2		G2	S2	BLM_S; SB_UCSC	None	None	Apr-Jun	Yes.
Stuckenia filiformis ssp. alpina	northern slender pondweed	Potamogetonaceae	perennial rhizomatous herb	2B.2	41437.71404	G5T5	S2S3		None	None	May-Jul	Yes.
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	1B.1		G1	S1		CR	FE	May-Jul(Sep)	Yes.

Scientific Name	Common Name	Habitat	MicrohabitatDetails	Microhabitat	Elevation Low_m	Elevation Low_ft	Elevation High_m	Elevation High_ft	CAEndemic
Astragalus pauperculus	depauperate milk-vetch	Chaparral, Cismontane woodland, Valley and foothill grassland		Vernally Mesic, Volcanic	60	195	1215	3985	TRUE
Azolla microphylla	Mexican mosquito fern	Marshes and swamps (ponds, slow water)			30	100	100	330	FALSE
Balsamorhiza macrolepis	big-scale balsamroot	Chaparral, Cismontane woodland, Valley and foothill grassland		Serpentinite (sometimes)	45	150	1555	5100	TRUE
Brodiaea rosea ssp. vallicola	valley brodiaea	Valley and foothill grassland, Vernal pools	Silt	Alluvial Terraces, Gravelly, Sandy	10	35	335	1100	TRUE
Calycadenia oppositifolia	Butte County calycadenia	Chaparral, Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland		Granitic (sometimes), Openings, Serpentinite	90	295	945	3100	TRUE
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	Chaparral, Lower montane coniferous forest, Valley and foothill grassland		Roadsides (sometimes), Rocky	565	1855	1524	5000	TRUE
Campylopodiella stenocarpa	flagella-like atractylocarpus	Cismontane woodland			100	330	500	1640	FALSE
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	Chaparral, Lower montane coniferous forest		Rocky, Serpentinite (usually)	255	835	2100	6890	TRUE
Castilleja rubicundula var. rubicundula	pink creamsacs	Chaparral (openings), Cismontane woodland, Meadows and seeps, Valley and foothill grassland		Serpentinite	20	65	910	2985	TRUE
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	Chaparral, Cismontane woodland		Serpentinite (sometimes)	245	805	1085	3560	TRUE
Claytonia palustris	marsh claytonia	Marshes and swamps, Meadows and seeps (mesic), Upper montane coniferous forest			1000	3280	2500	8205	TRUE
Cryptantha rostellata	red-stemmed cryptantha	Cismontane woodland, Valley and foothill grassland		Gravelly (often), Openings, Roadsides (often), Volcanic	40	130	800	2625	FALSE
Eriogonum umbellatum var. ahartii	Ahart's buckwheat	Chaparral, Cismontane woodland		Openings, Serpentinite, Slopes	400	1310	2000	6560	TRUE
Erythranthe glaucescens	shield-bracted monkeyflower	Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland		Seeps, Serpentinite, Streambanks (sometimes)	60	195	1240	4070	TRUE
Euphorbia hooveri	Hoover's spurge	Vernal pools			25	80	250	820	TRUE
Fritillaria eastwoodiae	Butte County fritillary	Chaparral, Cismontane woodland, Lower montane coniferous forest (openings)		Serpentinite (sometimes)	50	165	1500	4920	FALSE
Fritillaria pluriflora	adobe-lily	Chaparral, Cismontane woodland, Valley and foothill grassland		Adobe (often)	60	195	705	2315	TRUE
Hesperevax caulescens	hogwallow starfish	Valley and foothill grassland (mesic clay), Vernal pools (shallow)		Alkaline (sometimes)	0	0	505	1655	TRUE
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Marshes and swamps (freshwater)	Often in riprap on sides of levees.		0	0	120	395	TRUE
Imperata brevifolia	California satintail	Chaparral, Coastal scrub, Meadows and seeps (often alkali), Mojavean desert scrub, Riparian scrub		Mesic	0	0	1215	3985	FALSE
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools		Vernally Mesic	35	115	1250	4100	TRUE
Leptosiphon ambiguus	serpentine leptosiphon	Cismontane woodland, Coastal scrub, Valley and foothill grassland		Serpentinite (usually)	120	395	1130	3710	TRUE
Lilium humboldtii ssp. humboldtii	Humboldt lily	Chaparral, Cismontane woodland, Lower montane coniferous forest		Openings	90	295	1280	4200	TRUE
Limnanthes floccosa ssp. californica	Butte County meadowfoam	Valley and foothill grassland (mesic), Vernal pools			46	150	930	3050	TRUE
Limnanthes floccosa ssp. floccosa	woolly meadowfoam	Chaparral, Cismontane woodland, Valley and foothill grassland, Vernal pools		Vernally Mesic	60	195	1335	4380	FALSE
Monardella venosa	veiny monardella	Cismontane woodland, Valley and foothill grassland		Clay	60	195	410	1345	TRUE
Navarretia heterandra	Tehama navarretia	Valley and foothill grassland (mesic), Vernal pools			30	100	1010	3315	FALSE
Paronychia ahartii	Ahart's paronychia	Cismontane woodland, Valley and foothill grassland, Vernal pools			30	100	510	1675	TRUE
Polygonum bidwelliae	Bidwell's knotweed	Chaparral, Cismontane woodland, Valley and foothill grassland		Volcanic	60	195	1200	3935	TRUE
Rhynchospora californica	California beaked-rush	Bogs and fens, Lower montane coniferous forest, Marshes and swamps (freshwater), Meadows and seeps (seeps)			45	150	1010	3315	TRUE
Rhynchospora capitellata	brownish beaked-rush	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Upper montane coniferous forest		Mesic	45	150	2000	6560	FALSE
Sidalcea robusta	Butte County checkerbloom	Chaparral, Cismontane woodland			90	295	1600	5250	TRUE
Stuckenia filiformis ssp. alpina	northern slender pondweed	Marshes and swamps (shallow freshwater)			300	985	2150	7055	FALSE
Tuctoria greenei	Greene's tuctoria	Vernal pools			30	100	1070	3510	TRUE

Scientific Name	Common Name	States	Counties	EOTotal	EOA	EOB	EOC	EOD	EOX	EOU	EOHistorical	EORecent	EOExtant	EOPossibly Extirpated	EOExtirpated	EOThreatList
Astragalus pauperculus	depauperate milk-vetch	CA	BUT, SHA, TEH	0	0	0	0	0	0	0	0	0	0	0	0	
Azolla microphylla	Mexican mosquito fern	AR, AZ, BA, CA, CO, GU, IA, ID, IL, KS, MN, MO, MT, NE, NM, NV, OK, OR, TX, UT, WA, WI	BUT, COL, GLE, INY, KRN, LAK, MNT, MOD, NEV, PLU, SBD, SCR, SJQ, TUL	0	0	0	0	0	0	0	0	0	0	0	0	
Balsamorhiza macrolepis	big-scale balsamroot	CA	ALA, AMA, BUT, COL, ELD, LAK, MPA, NAP, PLA, SCL, SHA, SOL, SON, TEH,	51	8	10	2	0	2	29	24	27	49	1	1	29
Brodiaea rosea ssp. vallicola	valley brodiaea	CA	BUT, CAL, NEV, PLA, SAC, SJQ, SUT, YUB	0	0	0	0	0	0	0	0	0	0	0	0	
Calycadenia oppositifolia	Butte County calycadenia	CA	BUT	0	0	0	0	0	0	0	0	0	0	0	0	
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	CA	BUT, DNT, MEN, SHA, TEH	121	3	34	16	4	0	64	38	83	121	0	0	75
Campylopodiella stenocarpa	flagella-like atractylocarpus	CA, MO, OR		6	0	0	0	0	0	6	5	1	6	0	0	1
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	CA	BUT	19	0	3	9	2	0	5	6	13	19	0	0	5
Castilleja rubicundula var. rubicundula	pink creamsacs	CA	BUT, COL, GLE, LAK, NAP, SCL, SHA, YOL	42	5	7	1	3	4	22	17	25	38	4	0	10
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	CA	BUT, TEH	32	4	10	2	0	0	16	20	12	32	0	0	16
Claytonia palustris	marsh claytonia	CA	BUT, ELD, FRE, LAS, PLU, SHA, SIS, TEH, TRI, TUL	0	0	0	0	0	0	0	0	0	0	0	0	
Cryptantha rostellata	red-stemmed cryptantha	CA, OR, WA	BUT, COL, NAP, SHA, SUT	0	0	0	0	0	0	0	0	0	0	0	0	
Eriogonum umbellatum var. ahartii	Ahart's buckwheat	CA	BUT, PLU, SIE, YUB	32	1	13	3	0	0	15	2	30	32	0	0	15
Erythranthe glaucescens	shield-bracted monkeyflower	CA	BUT, SHA, TEH	0	0	0	0	0	0	0	0	0	0	0	0	
Euphorbia hooveri	Hoover's spurge	CA	BUT, GLE, MER, STA, TEH, TUL	29	2	7	9	2	4	5	15	14	25	2	2	23
Fritillaria eastwoodiae	Butte County fritillary	CA, OR	BUT, ELD, NEV, PLA, SHA, TEH, YUB	235	14	86	41	19	1	74	68	167	234	1	0	164
Fritillaria pluriflora	adobe-lily	CA	BUT, COL, GLE, LAK, NAP, SOL, TEH, YOL	114	12	31	14	4	0	53	78	36	114	0	0	69
Hesperevax caulescens	hogwallow starfish	CA	ALA, BUT, CCA, COL, FRE, GLE, KRN, MER, MNT, MPA, SAC, SDG, SJQ, SLO,	0	0	0	0	0	0	0	0	0	0	0	0	
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	CA	BUT, CCA, COL, GLE, SAC, SJQ, SOL, SUT, YOL	173	0	78	38	16	1	40	82	91	172	0	1	91
Imperata brevifolia	California satintail	AZ, BA, CA, NM, NV, TX, UT	BUT, FRE, IMP, INY, KRN, LAK, LAX, ORA, RIV, SBD, TEH, TUL, VEN	32	0	0	0	1	0	31	26	6	32	0	0	3
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	CA	BUT, PLA, SHA, TEH	62	7	18	8	3	4	22	34	28	58	3	1	38
Leptosiphon ambiguus	serpentine leptosiphon	CA	ALA, BUT, CCA, ELD, FRE, MER, MNT, SBT, SCL, SCR, SJQ, SMT, STA	0	0	0	0	0	0	0	0	0	0	0	0	
Lilium humboldtii ssp. humboldtii	Humboldt lily	CA	AMA, BUT, CAL, ELD, LAX, NEV, PLA, PLU, SBA, SDG, SIE, TEH, YUB	0	0	0	0	0	0	0	0	0	0	0	0	
Limnanthes floccosa ssp. californica	Butte County meadowfoam	CA	BUT	21	3	7	3	3	0	5	2	19	21	0	0	16
Limnanthes floccosa ssp. floccosa	woolly meadowfoam	CA, OR	BUT, LAK, LAS, NAP, SHA, SIS, TEH, TRI	54	9	18	9	2	0	16	54	0	54	0	0	34
Monardella venosa	veiny monardella	CA	BUT, SUT, TUO, YUB	4	1	1	0	0	2	0	4	0	2	2	0	2
Navarretia heterandra	Tehama navarretia	CA, OR	BUT, CCA, ELD, NAP, SHA, SON, TEH	0	0	0	0	0	0	0	0	0	0	0	0	
Paronychia ahartii	Ahart's paronychia	CA	BUT, SHA, TEH	59	21	14	0	2	0	22	49	10	59	0	0	25
Polygonum bidwelliae	Bidwell's knotweed	CA	BUT, SHA, TEH	0	0	0	0	0	0	0	0	0	0	0	0	
Rhynchospora californica	California beaked-rush	CA	BUT, MRN, NAP, SON	9	0	3	0	0	2	4	7	2	7	1	1	5
Rhynchospora capitellata	brownish beaked-rush	AL, AR, CA, CT, DC, DE, FL, GA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, NE, NH, NJ, NY, OH,	BUT, ELD, MPA, NEV, PLU, SON, TEH, TRI, TUO, YUB	25	4	1	3	0	1	16	16	9	24	1	0	6
Sidalcea robusta	Butte County checkerbloom	CA	BUT	38	3	5	1	0	1	28	20	18	37	1	0	9
Stuckenia filiformis ssp. alpina	northern slender pondweed	AK, AZ, CA, CO, ID, ME, MI, MN, MT, ND, NE, NH, NJ, NM, NV, NY, OH, OR, PA, SD, UT, VT, WA, WI,	ALA, BUT, CCA, ELD, LAS, MER, MNO, MOD, MPA, PLA, SCL, SHA, SIE, SMT,	21	0	0	0	0	0	21	21	0	21	0	0	0
Tuctoria greenei	Greene's tuctoria	CA	BUT, FRE, GLE, MAD, MER, MOD, SHA, SJQ, STA, TEH, TUL	50	3	12	6	5	19	5	30	20	31	6	13	42

Scientific Name	Common Name	ThreatListTotal	ThreatList
Astragalus pauperculus	depauperate milk-vetch	0	
Azolla microphylla	Mexican mosquito fern	0	
Balsamorhiza macrolepis	big-scale balsamroot	12	Development, Foot traffic/trampling, Grazing, Logging, Mining, Non-native plant impacts, ORV activity, Other, Recreational use (non-ORV), Road/trail construction/maint., Vandalism/dumping/litter, Wood cutting or brush clearing
Brodiaea rosea ssp. vallicola	valley brodiaea	0	
Calycadenia oppositifolia	Butte County calycadenia	0	
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	10	Biocides, Development, Erosion/runoff, Foot traffic/trampling, Grazing, Improper burning regime, Logging, ORV activity, Other, Road/trail construction/maint.
Campylopodiella stenocarpa	flagella-like atractylocarpus	3	Altered flood/tidal/hydrologic regime, Erosion/runoff, Road/trail construction/maint.
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	4	Biocides, Improper burning regime, ORV activity, Road/trail construction/maint.
Castilleja rubicundula var. rubicundula	pink creamsacs	12	Agriculture, Development, Erosion/runoff, Feral pigs, Foot traffic/trampling, Grazing, Non-native plant impacts, ORV activity, Other, Recreational use (non-ORV), Road/trail construction/maint., Vandalism/dumping/litter
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	8	Biocides, Erosion/runoff, Logging, Mining, Non-native plant impacts, Recreational use (non-ORV), Road/trail construction/maint., Vandalism/dumping/litter
Claytonia palustris	marsh claytonia	0	
Cryptantha rostellata	red-stemmed cryptantha	0	
Eriogonum umbellatum var. ahartii	Ahart's buckwheat	9	Erosion/runoff, Logging, Mining, Non-native plant impacts, ORV activity, Other, Recreational use (non-ORV), Road/trail construction/maint., Wood cutting or brush clearing
Erythranthe glaucescens	shield-bracted monkeyflower	0	
Euphorbia hooveri	Hoover's spurge	12	Agriculture, Altered flood/tidal/hydrologic regime, Biocides, Development, Disking, Erosion/runoff, Foot traffic/trampling, Grazing, Non-native plant impacts, Other, Recreational use (non-ORV), Surface water diversion
Fritillaria eastwoodiae	Butte County fritillary	17	Agriculture, Biocides, Development, Disking, Erosion/runoff, Foot traffic/trampling, Grazing, Improper burning regime, Logging, Mining, Non-native plant impacts, ORV activity, Other, Recreational use (non-ORV), Road/trail construction/maint., Vandalism/dumping/litter, Wood cutting or
Fritillaria pluriflora	adobe-lily	11	Biocides, Dam/Inundation, Development, Foot traffic/trampling, Grazing, Non-native plant impacts, ORV activity, Other, Over-collecting/poaching, Recreational use (non-ORV), Road/trail construction/maint.
Hesperevax caulescens	hogwallow starfish	0	
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	19	Agriculture, Altered flood/tidal/hydrologic regime, Biocides, Dam/Inundation, Degraded water quality, Development, Erosion/runoff, Foot traffic/trampling, Grazing, Improper burning regime, Mining, Non-native plant impacts, ORV activity, Other, Recreational use (non-ORV),
Imperata brevifolia	California satintail	1	Development
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	12	Agriculture, Altered flood/tidal/hydrologic regime, Dam/Inundation, Development, Foot traffic/trampling, Grazing, Logging, Mining, ORV activity, Other, Road/trail construction/maint., Vandalism/dumping/litter
Leptosiphon ambiguus	serpentine leptosiphon	0	
Lilium humboldtii ssp. humboldtii	Humboldt lily	0	
Limnanthes floccosa ssp. californica	Butte County meadowfoam	9	Agriculture, Development, Foot traffic/trampling, Grazing, Non-native plant impacts, ORV activity, Other, Road/trail construction/maint., Surface water diversion
Limnanthes floccosa ssp. floccosa	woolly meadowfoam	10	Altered flood/tidal/hydrologic regime, Dam/Inundation, Development, Grazing, Logging, ORV activity, Other, Road/trail construction/maint., Vandalism/dumping/litter, Wood cutting or brush clearing
Monardella venosa	veiny monardella	5	Agriculture, Dam/Inundation, Development, Grazing, Mining
Navarretia heterandra	Tehama navarretia	0	
Paronychia ahartii	Ahart's paronychia	9	Agriculture, Development, Disking, Foot traffic/trampling, Grazing, Mining, ORV activity, Other, Road/trail construction/maint.
Polygonum bidwelliae	Bidwell's knotweed	0	
Rhynchospora californica	California beaked-rush	4	Altered flood/tidal/hydrologic regime, Foot traffic/trampling, Grazing, Non-native plant impacts
Rhynchospora capitellata	brownish beaked-rush	8	Altered flood/tidal/hydrologic regime, Development, Foot traffic/trampling, Grazing, Logging, Non-native plant impacts, Other, Surface water diversion
Sidalcea robusta	Butte County checkerbloom	12	Agriculture, Biocides, Development, Erosion/runoff, Foot traffic/trampling, Grazing, Improper burning regime, Non-native plant impacts, ORV activity, Other, Recreational use (non-ORV), Road/trail construction/maint.
Stuckenia filiformis ssp. alpina	northern slender pondweed	0	
Tuctoria greenei	Greene's tuctoria	12	Agriculture, Altered flood/tidal/hydrologic regime, Biocides, Development, Disking, Foot traffic/trampling, Grazing, Mining, Non-native plant impacts, Other, Road/trail construction/maint., Surface water diversion

Scientific Name	Common Name	Notes	Threats
Astragalus pauperculus	depauperate milk-vetch	Possibly threatened by vehicles and non-native plants. See Systematic Botany 17(3):367-379 (1992) for distributional information.	
Azolla microphylla	Mexican mosquito fern	Too common? Difficult to distinguish from A. filiculoides, which is common. See American Fern Journal 34(3):69-84 (1944) for a review of New World Azolla.	
Balsamorhiza macrolepis	big-scale balsamroot	Threatened by grazing. Potentially threatened by residential or recreational development. Possibly threatened by energy development and non-native plants. See Annals of the Missouri Botanical Garden 22:132 (1935) for original description.	Threatened by grazing. Potentially threatened by residential or recreational development. Possibly
Brodiaea rosea ssp. vallicola	valley brodiaea	Threatened by urbanization. Previously assigned to B. coronaria; differentiated by staminodes strongly inrolled, tapering to an apex vs. staminodes flat to incurved, uniformly wide from base to obtuse apex in B. coronaria. Similar to B. rosea ssp. rosea, but with perianth	
Calycadenia oppositifolia	Butte County calycadenia	Can be locally abundant. Threatened by development, road construction, road maintenance, vehicles, recreational activities, and grazing. See Bulletin of the Torrey Botanical Club 9:110 (1882) for original description, and Flora Franciscana p. 423 (1897) for revised	
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	Possibly threatened by logging and road maintenance. Can be variable. Plants from DNT Co. intermediate to ssp. atriplicifolia, and plants from MEN Co. (600A) need confirmation. See Kew Bulletin 35(2):327 (1980) for original description.	
Campylopodiella stenocarpa	flagella-like atractylocarpus	Possibly threatened by road maintenance. Disjunct from Mexico and South America. See Syn. Musc. Frond 2:597 (1951) for original description, and The Bryologist 31:110 (1928) for revised nomenclature.	
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	Previously on List 3 due to lack of location, rarity, and endangerment information; location information still needed. Threatened by non-native plants, road and trail maintenance, vehicles, and alteration of fire regimes. Many collections lack tubers, which aid in identification.	Threatened by non-native plants, road and trail maintenance, vehicles, and alteration of fire
Castilleja rubicundula var. rubicundula	pink creamsacs	Possibly threatened by grazing, mining, vehicles, and road construction. See C. rubicundula ssp. rubicundula in TJM 2. See Manual of the Flowering Plants of California, p. 943 (1925) by W.L. Jepson for original description, Systematic Botany 16(1):658 (1991) for	
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	Threatened by urbanization and non-native plants. Possibly threatened by erosion and road maintenance. See University of California Publications in Botany 2:239 (1907) for original description and 20:241-392	
Claytonia palustris	marsh claytonia	Threatened by logging, grazing, trampling, and fire. See Madrono 34(2):155-161 (1987) for original description.	
Cryptantha rostellata	red-stemmed cryptantha	See Bulletin of the California Academy of Sciences 1(4A):203 (1886) for original description, and Pittonia 1(7):116 (1887) for taxonomic treatment.	
Eriogonum umbellatum var. ahartii	Ahart's buckwheat	Threatened by road and trail construction and maintenance, vehicles, and fire suppression. Potentially threatened by logging. Not in The Jepson Manual (1993). See Phytologia 86:146 (2004) for original description.	
Erythranthe glaucescens	shield-bracted monkeyflower	Threatened by vehicles and non-native plants. See Bulletin of the California Academy of Sciences 1:113 (1885) for original description, Annals of the Missouri Botanical Garden 11(2-3):175-176 (1924) for taxonomic treatment, and Phytoneuron 2012-39:1-60 (2012) for	
Euphorbia hooveri	Hoover's spurge	Threatened by grazing, agriculture, and non-native plants. See Proceedings of the Biological Society of Washington 53:9 (1940) for original description, Madrono 32(3):187-189 (1985) for alternative nomenclature, and Taxon 55:397-420 (2006) for taxonomic treatment.	
Fritillaria eastwoodiae	Butte County fritillary	Move to List 1B? Plants from SHA and THE Co. may be different taxon; needs study. Occurrence on 608C needs confirmation. Threatened on private lands by logging and development. Other threats include vehicles, road maintenance, recreational activities,	Threatened on private lands by logging and development. Other threats include vehicles, road
Fritillaria pluriflora	adobe-lily	Threatened by grazing, vehicles, development, mining, non-native plants, and horticultural collecting.	
Hesperevax caulescens	hogwallow starfish	Threatened by development and agriculture. Possibly threatened by overgrazing. See Proceedings of the American Academy of Arts and Sciences 7:356 (1868) for revised nomenclature, and Systematic Botany 17(2):293-310 (1992) for taxonomic treatment.	
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Most occurrences are very small. Seriously threatened by habitat disturbance, development, agriculture, recreational activites, and channelization of the Sacramento River and its tributaries. Also threatened by weed control measures and erosion. Possibly threatened	
Imperata brevifolia	California satintail	Many collections old; need field surveys. Records from BUT, THE, and LAK counties may represent escapes from ornamental plantings. Threatened by development and agriculture. Mistakenly classified as a noxious weed in California from 1960 to 2004. See Bulletin of	
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush		Threatened by development, grazing, vehicles, industrial forestry, and agriculture.
Leptosiphon ambiguus	serpentine leptosiphon	Threatened by non-native plants and habitat alteration. To be expected in other adjacent counties. A synonym of Linanthus ambiguus in TJM (1990). See Botanical Gazette 11:339 (1886) for original description, and Aliso 19(1):55-91 (2000) for revised nomenclature.	
Lilium humboldtii ssp. humboldtii	Humboldt lily		Threatened by development, urbanization, horticultural collecting, deer browsing, non-native
Limnanthes floccosa ssp. californica	Butte County meadowfoam	Known from fewer than twenty occurrences. Threatened by urbanization, road construction, grazing, non-native plants, vehicles, and agriculture. See Brittonia 25:187 (1973) for original description, and Conservation Biology 6(4):549-558 (1992) for field survey and	
Limnanthes floccosa ssp. floccosa	woolly meadowfoam		Threatened by grazing and road widening. Potentially threatened by development. Possibly
Monardella venosa	veiny monardella	Rediscovered in 1992 by B. Castro. Threatened by development of wastewater treatment plant. See Madrono 40(4):270 (1993) for information on rediscovery.	Threatened by development of wastewater treatment plant.
Navarretia heterandra	Tehama navarretia	To be expected elsewhere; need information. Endangered in OR. See Madrono 8(6):197 (1946) for original description.	
Paronychia ahartii	Ahart's paronychia	Threatened by habitat loss. Possibly threatened by grazing, trampling, and vehicles. See Madrono 32(2):87-90 (1985) for original description.	
Polygonum bidwelliae	Bidwell's knotweed	Possibly threatened by vehicles, foot traffic, soil erosion, and non-native plants. See Proceedings of the American Academy of Arts and Sciences 14:294 (1879) for original description.	
Rhynchospora californica	California beaked-rush	Threatened by marsh habitat loss. See Rhodora 46:272-273 (1944) for original description, and Madrono 33(2):150 (1986) for information on BUT Co. collection.	
Rhynchospora capitellata	brownish beaked-rush	Possibly threatened by grazing and development. See Rhodora 46:115-121 (1944) for taxonomic treatment.	
Sidalcea robusta	Butte County checkerbloom	Threatened by non-native plants. Possibly threatened by residential development and fire suppression. See Annals of the Missouri Botanical Garden 18:205-207 (1931) for original description.	
Stuckenia filiformis ssp. alpina	northern slender pondweed	To be expected in the San Joaquin Valley, San Francisco Bay area, and the central high Sierra Nevada; need information. On review list in OR.	
Tuctoria greenei	Greene's tuctoria	Threatened by agriculture, urbanization, overgrazing, and habitat fragmentation and loss. See Botanical Gazette 16:146 (1891) for original description, American Journal of Botany 69:1082-1095 (1982) for taxonomic treatment, and Conservation Genetics, pp. 1-14	

Scientific Name	Common Name	Taxonomy	FullScientificName	Synonyms	ElementCode	USDAPlantsSymbol	CBRReason	DateAdded
Astragalus pauperculus	depauperate milk-vetch		Astragalus pauperculus		PDFAB0F6N0	ASPA15		27030
Azolla microphylla	Mexican mosquito fern		Azolla microphylla	Azolla mexicana	PPAZO01030	AZMI		34335
Balsamorhiza macrolepis	big-scale balsamroot		Balsamorhiza macrolepis	Balsamorhiza macrolepis var. macrolepis	PDAST11061	BAMA3		27030
Brodiaea rosea ssp. vallicola	valley brodiaea		Brodiaea rosea ssp. vallicola R.E. Preston		PMLIL0C0K2			43472
Calycadenia oppositifolia	Butte County calycadenia		Calycadenia oppositifolia		PDAST1P070	CAOP		27030
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory		Calystegia atriplicifolia ssp. buttensis Brummitt		PDCON04012	CAATB		30682
Campylopodiella stenocarpa	flagella-like atractylocarpus		Campylopodiella stenocarpa		NBMUS84010	CAST49	Does not occur in California?; plants previously identified as C. stenocarpa in California are C. flagellacea, Ditrichum	36892
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	Many collections lack tubers, which aid in identification. A synonym of C. californica in TJM 2.	Cardamine pachystigma var. dissectifolia (Detl.) Roll.	Dentaria pachystigma var. dissectifolia	PDBRA0K1B1	CAPAD2		32143
Castilleja rubicundula var. rubicundula	pink creamsacs		Castilleja rubicundula var. rubicundula	Castilleja rubicundula ssp. rubicundula	PDSCR0D482			36892
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia		Clarkia gracilis ssp. albicaulis (Jeps.) Lewis & Lewis		PDONA050J1	CLGRA		34335
Claytonia palustris	marsh claytonia		Claytonia palustris		PDPOR030S0	CLPA10		32143
Cryptantha rostellata	red-stemmed cryptantha		Cryptantha rostellata		PDBOR0A2M1			43277
Eriogonum umbellatum var. ahartii	Ahart's buckwheat		Eriogonum umbellatum var. ahartii Reveal		PDPGN086UY			40511
Erythranthe glaucescens	shield-bracted monkeyflower		Erythranthe glaucescens	Mimulus glaucescens	PDSCR1B1B0			27030
Euphorbia hooveri	Hoover's spurge		Euphorbia hooveri	Chamaesyce hooveri	PDEUP0D150			27030
Fritillaria eastwoodiae	Butte County fritillary		Fritillaria eastwoodiae	Fritillaria phaeanthera	PMLIL0V060	FREA		27030
Fritillaria pluriflora	adobe-lily		Fritillaria pluriflora		PMLIL0V0F0	FRPL		27030
Hesperevax caulescens	hogwallow starfish		Hesperevax caulescens		PDASTE5020	HECA30		36892
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow		Hibiscus lasiocarpos var. occidentalis (Torr.) A. Gray	Hibiscus californicus, Hibiscus lasiocarpos, Hibiscus lasiocarpus	PDMAL0H0R3			27030
Imperata brevifolia	California satintail		Imperata brevifolia		PMPOA3D020	IMBR2		39077
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush		Juncus leiospermus var. leiospermus		PMJUN011L2	JULEL		27030
Leptosiphon ambiguus	serpentine leptosiphon		Leptosiphon ambiguus	Linanthus ambiguus	PDPLM09020	LEAM13		34335
Lilium humboldtii ssp. humboldtii	Humboldt lily		Lilium humboldtii ssp. humboldtii		PMLIL1A071	LIHUH		34335
Limnanthes floccosa ssp. californica	Butte County meadowfoam		Limnanthes floccosa ssp. californica Arroyo		PDLIM02042	LIFLC2		29221
Limnanthes floccosa ssp. floccosa	woolly meadowfoam		Limnanthes floccosa ssp. floccosa		PDLIM02043	LIFLF		29221
Monardella venosa	veiny monardella		Monardella venosa	Monardella douglasii ssp. venosa	PDLAM18082			30682
Navarretia heterandra	Tehama navarretia		Navarretia heterandra		PDPLM0C0A0	NAHE		27030
Paronychia ahartii	Ahart's paronychia		Paronychia ahartii		PDCAR0L0V0	PAAH		32143
Polygonum bidwelliae	Bidwell's knotweed		Polygonum bidwelliae		PDPGN0L0C0	POBI4		27030
Rhynchospora californica	California beaked-rush		Rhynchospora californica		PMCYP0N060	RHCA10		27030
Rhynchospora capitellata	brownish beaked-rush		Rhynchospora capitellata		PMCYP0N080	RHCA12		27030
Sidalcea robusta	Butte County checkerbloom		Sidalcea robusta		PDMAL110P0	SIRO2		27030
Stuckenia filiformis ssp. alpina	northern slender pondweed		Stuckenia filiformis ssp. alpina (Blytt) R.R. Haynes et al.	Potamogeton filiformis, Stuckenia filiformis	PMPOT03091	STFIA2		34335
Tuctoria greenei	Greene's tuctoria		Tuctoria greenei	Orcuttia greenei	PMPOA6N010	TUGR		27030

Scientific Name	Common Name	LastUpdate
Astragalus pauperculus	depauperate milk-vetch	44720
Azolla microphylla	Mexican mosquito fern	44342
Balsamorhiza macrolepis	big-scale balsamroot	44433
Brodiaea rosea ssp. vallicola	valley brodiaea	44901
Calycadenia oppositifolia	Butte County calycadenia	44466
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	44473
Campylopodiella stenocarpa	flagella-like atractylocarpus	44901
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	44473
Castilleja rubicundula var. rubicundula	pink creamsacs	44901
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	44505
Claytonia palustris	marsh claytonia	44350
Cryptantha rostellata	red-stemmed cryptantha	44469
Eriogonum umbellatum var. ahartii	Ahart's buckwheat	44901
Erythranthe glaucescens	shield-bracted monkeyflower	44539
Euphorbia hooveri	Hoover's spurge	44342
Fritillaria eastwoodiae	Butte County fritillary	44566
Fritillaria pluriflora	adobe-lily	44566
Hesperevax caulescens	hogwallow starfish	44566
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	44566
Imperata brevifolia	California satintail	44775
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	44621
Leptosiphon ambiguus	serpentine leptosiphon	44901
Lilium humboldtii ssp. humboldtii	Humboldt lily	44901
Limnanthes floccosa ssp. californica	Butte County meadowfoam	44342
Limnanthes floccosa ssp. floccosa	woolly meadowfoam	44621
Monardella venosa	veiny monardella	44621
Navarretia heterandra	Tehama navarretia	44342
Paronychia ahartii	Ahart's paronychia	44342
Polygonum bidwelliae	Bidwell's knotweed	44720
Rhynchospora californica	California beaked-rush	44901
Rhynchospora capitellata	brownish beaked-rush	44720
Sidalcea robusta	Butte County checkerbloom	44901
Stuckenia filiformis ssp. alpina	northern slender pondweed	44391
Tuctoria greenei	Greene's tuctoria	44342

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

Butte 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.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

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

Reptiles

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

Amphibians

NAME	STATUS
Western Spadefoot Spea hammondii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp Lepidurus packardi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Butte County Meadowfoam Limnanthes floccosa ssp. californica Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4223	Endangered

Critical habitats

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

There are no critical habitats at this location.

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

Bald & Golden Eagles

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

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

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

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31

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

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

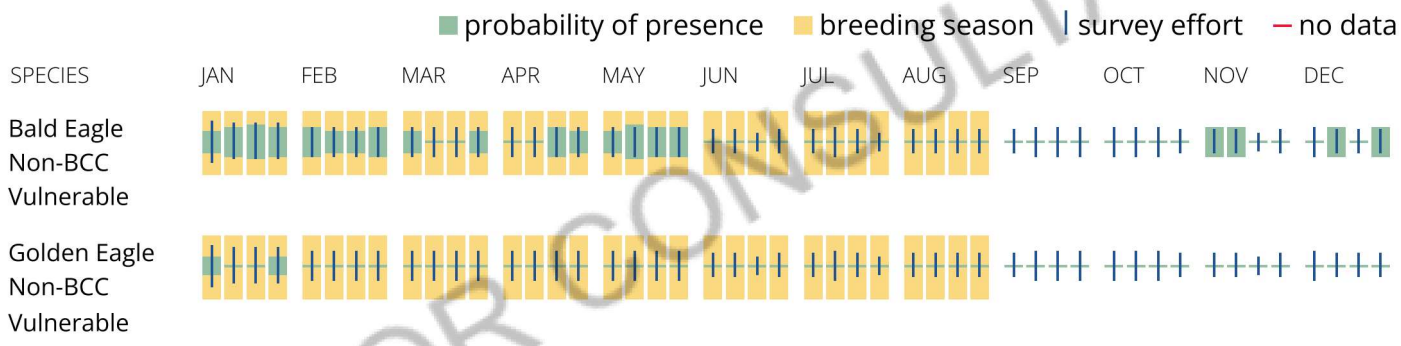
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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

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

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

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



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

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

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

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

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

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

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

What 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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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

Additional information can be found using the following links:

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

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, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black Swift *Cypseloides niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Bullock's Oriole *Icterus bullockii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
California Thrasher *Toxostoma redivivum* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31

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

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Northern Harrier Circus hudsonius — Breeds Apr 1 to Sep 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8350

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

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.
https://ecos.fws.gov/ecp/species/3910

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10

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

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.
https://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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

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

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

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

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

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

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

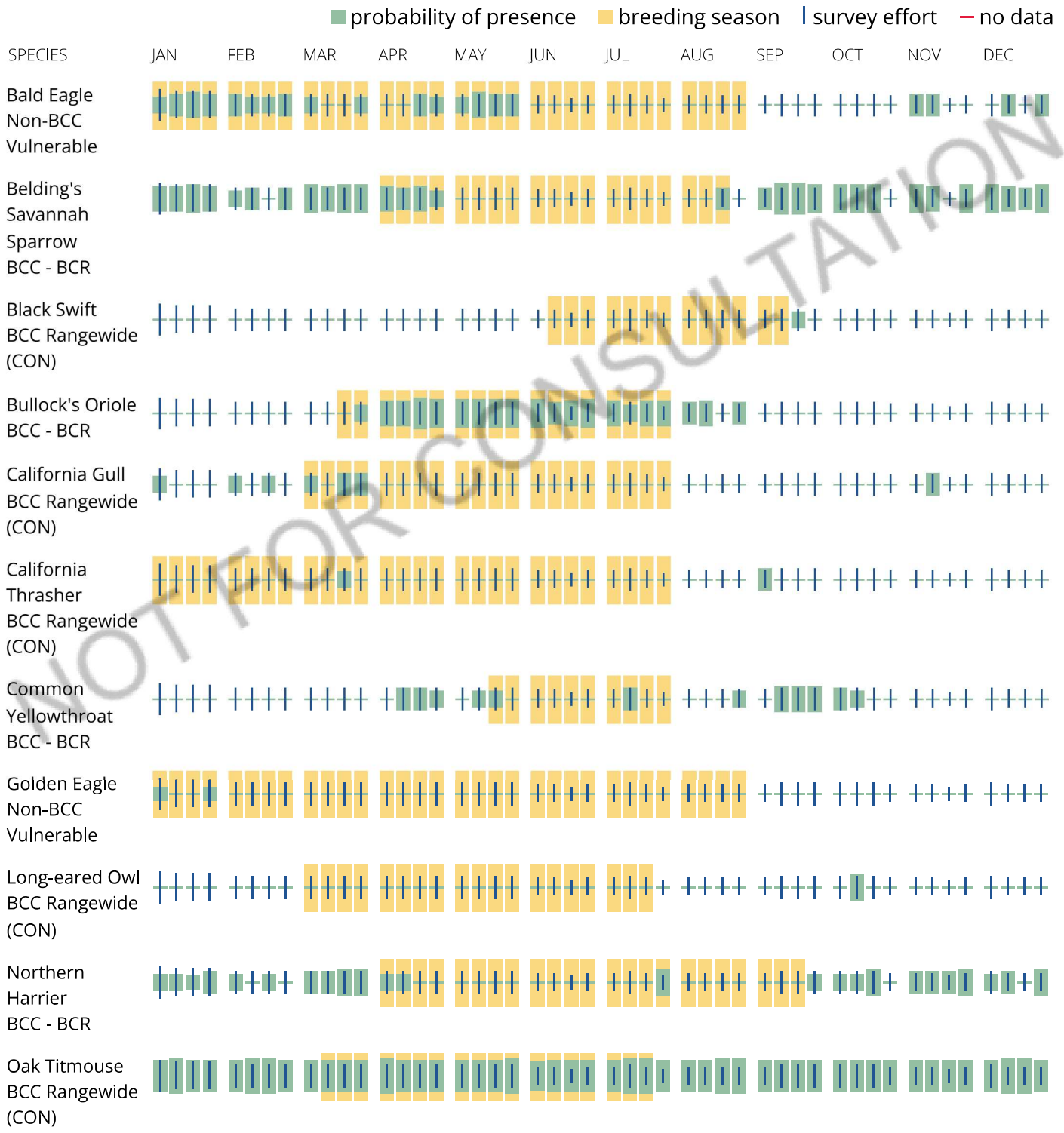
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

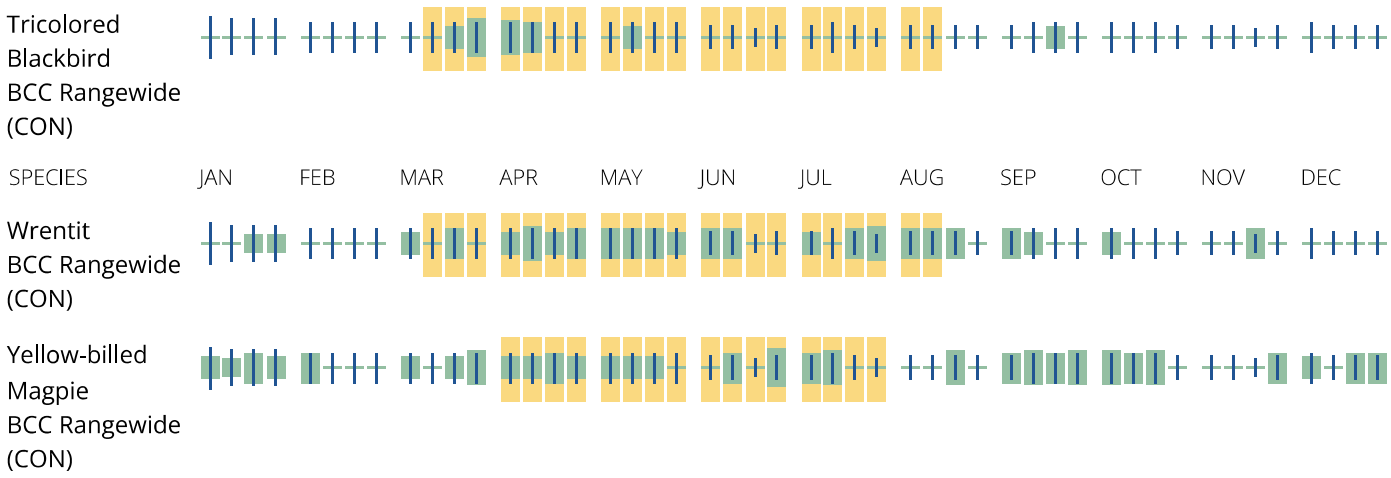
No Data (–)

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

Survey Timeframe

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





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

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

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

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

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

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

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

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

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

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

Wetland information is not available at this time

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

Data limitations

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

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

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

Data exclusions

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

Attachment C: Representative Photographs

All photographs were taken during the surveys conducted on April 10 and 11, 2023.

Photo 1. The annual grassland habitat in Staging Area 6 is dominated by filaree and a mix of introduced annual grass and is being utilized for a bee apiary. View west.

Photo 2. Valley oak woodland near a residential structure and being utilized for rangeland located to the west of Midway in the western portion of the survey area. View southwest.

Photo 3. Developed land covers include various structures such as the Skyway bridge that passes over the Butte Creek Diversion Channel. These structures can provide habitat to wildlife species as exemplified here with cliff swallow (*Petrochelidon pyrrhonota*) mud nests along the pillars. View southwest.

Photo 4. Mendocino National Forest Chico Seed Orchard has rather evenly spaced trees and is considered an agricultural land cover. View east.

Photo 5. View of vernal pool complex habitat which occurs in the northeastern portion of the survey area. Areas with dense wildflowers were likely supporting seasonal pools in the early portion of the growing season. View north from Skyway. This area occurs on the opposite side of the road as the Project Footprint.

Photo 6. View of valley oak riparian woodland along the perennial stream, Comanche Creek. View east.

Photo 7. Emergent marsh (background) and seasonal wetlands (foreground) provide aquatic habitat in the survey area to the north of Skyway in the northeast portion of the survey area. View north.

Photo 8. Ditch excavated in uplands to drain uplands along Skyway in the eastern portion of the survey area. View west.

Photo 9. Intermittent stream (Butte Creek Diversion Channel) in the survey area. View south.

Photo 10. Ephemeral stream surrounded by valley oak riparian woodland located to the west of Cramer Lane near staging area 6. View southwest.

Photo 11. Blue elderberry shrub in the survey area can provide habitat for Valley elderberry longhorn beetle, a federally threatened species. This shrub is located to the north of Skyway and the Project Footprint. View east.

Attachment D: Species Observed

Table D-1. Plant species observed in the survey area

Scientific Name	Common Name	Origin	Cal-ICP Rating
Trees			
Acer negundo	Boxelder	Native	
Ailanthus altissima	Tree of heaven	Introduced	Moderate
Calocedrus decurrens	Incense cedar	Native	
Ficus carica	Common fig	Introduced	Moderate
Fraxinus latifolia	Oregon ash	Native	
Juglans hindsii	Northern california black walnut	Native	
Juglans regia	English walnut	Planted	
Nerium oleander	Oleander	Planted	
Pinus ponderosa	Yellow pine	Native	
Pinus sabiniana	Bull pine	Native	
Platanus racemosa	California sycamore	Native	
Populus fremontii	Fremont cottonwood	Native	
Prunus cerasifera	Cherry plum	Introduced	Limited
Prunus domestica	European plum	Introduced	
Pseudotsuga menziesii	Douglas fir	Planted	
Pyrus calleryana	Callery pear	Planted	
Quercus garryana var. *semota*	Oregon white oak	Native	
Quercus lobata	Valley oak	Native	
Quercus wislizeni	Interior live oak	Native	
Sequoia sempervirens	Coast redwood	Planted	
Shrubs and Vines			
Aristolochia californica	California pipevine	Native	
Camellia japonica	Common camellia	Planted	
Cephalanthus occidentalis	Common buttonbush	Native	
Cercis occidentalis	Western redbud	Native	
Cornus nuttallii	Mountain dogwood	Native	
Cornus sericea	American dogwood	Native	
Eriogonum nudum	Naked buckwheat	Native	
Frangula californica	California coffeeberry	Native	
Heteromeles arbutifolia	Toyon	Native	
Parthenocissus quinquefolia	Virginia creeper	Introduced	
Phoradendron leucarpum subsp. *tomentosum*	Mistletoe	Native	
Rubus armeniacus	Himalayan blackberry	Introduced	High
Salix lasiolepis	Arroyo willow	Native	
Sambucus mexicana	Blue elderberry	Native	
Toxicodendron diversilobum	Poison oak	Native	

Scientific Name	Common Name	Origin	Cal-ICP Rating
Vitis californica	California wild grape	Native	
Forbs			
Achyrachaena mollis	Blow wives	Native	
Acmispon americanus var. *americanus*	Spanish lotus	Native	
Alisma triviale	Northern water plantain	Native	
Allium amplectens	Narrow leaved onion	Native	
Amaranthus blitoides	Prostrate pigweed	Native	
Ambrosia psilostachya	Ragweed	Native	
Amsinckia intermedia	Common fiddleneck	Native	
Anaphalis margaritacea	Pearly everlasting	Native	
Anthriscus caucalis	Bur chevril	Introduced	
Aphanes occidentalis	Ladie's mantle	Native	
Artemisia douglasiana	California mugwort	Native	
Asclepias fascicularis	narrow leaf milkweed	Native	
Athysanus pusillus	Dwarf athysanus	Native	
Bergia texana	Texas bergia	Native	
Bidens frondosa	Sticktight	Native	
Blennosperma nanum	Yellow carpet	Native	
Brachypodium distachyon	Purple false brome	Introduced	Moderate
Brassica nigra	Black mustard	Introduced	Moderate
Brodiaea terrestris	Dwarf brodiaea	Native	
Calandrinia menziesii	Red maids	Native	
Callitriche heterophylla	Water starwort	Native	
Calycadenia sp.[2]	Rosinweed	Native	
Carduus pycnocephalus	Italian thistle	Introduced	Moderate
Centaurea melitensis	Tocalote	Introduced	Moderate
Centaurea solstitialis	Yellow starthistle	Introduced	High
Centromadia fitchii	Spikeweed	Native	
Chenopodium album	Lambs quarters	Introduced	
Chlorogalum pomeridianum	Amole	Native	
Clarkia sp.	Clarkia	Native	
Convolvulus arvensis	Field bindweed	Introduced	
Crassula connata	Sand pygmy weed	Native	
Crassula tillaea	Mediterranean pygmy weed	Introduced	
Croton setiger	Turkey-mullein	Native	
Cuscuta campestris	Field dodder	Native	
Delphinium variegatum	Royal larkspur	Native	

[2] *Calycadenia* sp. was not identifiable to the species level during the July, 2023 site visit. However, it was confirmed that it was not the CRPR 4.2 listed species, *Calycadenia oppositifolia*.

Scientific Name	Common Name	Origin	Cal-ICP Rating
Dichondra micrantha	Asian ponysfoot	Introduced	
Dipterostemon capitatus	Blue dicks	Native	
Duchesnea indica	Mock strawberry	Introduced	
Epilobium brachycarpum	Willow herb	Native	
Epilobium densiflorum	Willow herb	Native	
Erigeron canadensis	Canada horseweed	Native	
Erodium botrys	Big heron bill	Introduced	
Erodium brachycarpum	White stemmed filaree	Introduced	
Erodium moschatum	Whitestem filaree	Introduced	
Eryngium vaseyi var. *vallicola*	Coyote thistle	Native	
Erythranthe glaucescens[3]	Shield-bracted monkeyflower	Native	
Eschscholzia californica	California poppy	Native	
Eschscholzia lobbii	Frying pans	Native	
Euphorbia ocellata subsp. *ocellata*	Valley spurge	Native	
Euphorbia serpens	Matted sandmat	Native	
Euphorbia serpyllifolia	Thyme-leafed spurge	Native	
Euphorbia serrata	Saw toothed spurge	Introduced	
Euthamia occidentalis	Western goldenrod	Native	
Galium aparine	Cleavers	Native	
Galium parisiense	Wall bedstraw	Introduced	
Geranium dissectum	Wild geranium	Introduced	Limited
Geranium molle	Crane's bill geranium	Introduced	
Grindelia camporum	Gumweed	Native	
Helianthus annuus	Hairy leaved sunflower	Native	
Heliotropium curassavicum var. *oculatum*	Seaside heliotrope	Native	
Hypericum perforatum	Klamathweed	Introduced	Limited
Hypochaeris glabra	Smooth cats ear	Introduced	Limited
Hypochaeris radicata	Hairy cats ear	Introduced	Moderate
Iris pseudacorus	Horticultural iris	Introduced	Limited
Kickxia elatine	Sharp point fluellin	Introduced	
Lactuca serriola	Prickly lettuce	Introduced	
Lasthenia californica	Goldfields	Native	
Layia fremontii	Fremont's tidy tips	Native	
Lepidium nitidum	Shining pepper grass	Native	
Leptosiphon bicolor	True babystars	Native	
Limnanthes douglasii subsp. *rosea*	Rosy Douglas' meadowfoam	Native	
Logfia gallica	Narrowleaf cottonrose	Introduced	

[3] CRPR 4.3

Scientific Name	Common Name	Origin	Cal-ICP Rating
Lupinus bicolor	Lupine	Native	
Lysimachia arvensis	Scarlet pimpernel	Introduced	
Lythrum hyssopifolia	Hyssop loosestrife	Introduced	
Marah fabacea	California man-root	Native	
Medicago minima	Small bur clover	Introduced	
Medicago polymorpha	California burclover	Introduced	Limited
Melilotus indicus	Annual yellow sweetclover	Introduced	
Mentha pulegium	Pennyroyal	Introduced	Moderate
Micropus californicus var. *californicus*	Slender cottonweed	Native	
Microseris acuminata	Sierra foothills microseris	Native	
Microseris douglasii subsp. *douglasii*	Douglas' microseris	Native	
Mollugo verticillata	Indian chickweed	Introduced	
Montia fontana	Water montia	Native	
Navarretia leucocephala subsp. *leucocephala*	White headed navarretia	Native	
Nemophila pedunculata	Meadow nemophila	Native	
Oxalis pes-caprae	Bermuda buttercup	Introduced	Moderate
Persicaria punctata	Dotted smartweed	Native	
Petrorhagia dubia	Windmill pink	Introduced	
Phytolacca americana	Pokeweed	Introduced	Limited
Plagiobothrys austiniae	Rebecca austin's allocarya	Native	
Plagiobothrys fulvus	Fulvous popcorn flower	Native	
Plagiobotrys sp.	Popcorn flower		
Plantago elongata	Coastal plantain	Native	
Plantago erecta	California plantain	Native	
Plantago lanceolata	Ribwort	Introduced	Limited
Plectritis ciliosa	Long spurred plectritis	Native	
Polycarpon tetraphyllum	Four leaved allseed	Introduced	
Polygonum aviculare	Prostrate knotweed	Introduced	
Portulaca oleracea	Common purslane	Introduced	
Primula clevelandii	Padre's shooting star	Native	
Prunella vulgaris	Self heal	Native	
Pseudognaphalium luteoalbum	Jersey cudweed	Introduced	
Rorippa curvisiliqua	Curvepod yellow cress	Native	
Rumex crispus	Curly dock	Introduced	Limited
Salsola tragus	Russian thistle	Introduced	Limited
Sedella pumila	Sierra mock stonecrop	Native	
Senecio vulgaris	Common groundsel	Introduced	
Silybum marianum	Milk thistle	Introduced	Limited

Scientific Name	Common Name	Origin	Cal-ICP Rating
Sonchus asper	Spiny sowthistle	Introduced	
Spergularia rubra	Purple sand spurry	Introduced	
Stellaria media	Chickweed	Introduced	
Torilis arvensis	Field hedge parsley	Introduced	Moderate
Tribulus terrestris	Puncture vine	Introduced	Limited
Trichostema lanceolatum	Vinegarweed	Native	
Trifolium depauperatum	Dwarf sack clover	Native	
Trifolium eriocephalum	Woollyhead clover	Native	
Trifolium glomeratum	Clustered clover	Introduced	
Trifolium hirtum	Rose clover	Introduced	Limited
Trifolium subterraneum	Subterranean clover	Introduced	
Trifolium willdenovii	Tomcat clover	Native	
Triphysaria eriantha	Butter 'n' eggs	Native	
Verbascum blattaria	Moth mullein	Introduced	
Veronica peregrina subsp. *xalapensis*	Speedwell	Native	
Vicia sativa	Spring vetch	Introduced	
Vicia villosa	Hairy vetch	Introduced	
Vinca major	Vinca	Introduced	Moderate
Zeltnera muehlenbergii	Muehlenberg's centaury	Native	
Graminoids			
Aira caryophyllea	Silvery hairgrass	Introduced	
Aristida oligantha	Oldfield three awn	Native	
Avena barbata	Slim oat	Introduced	Moderate
Briza minor	Little rattlesnake grass	Introduced	
Bromus carinatus	California bromegrass	Native	
Bromus caroli-henrici	Weedy brome	Introduced	
Bromus diandrus	Ripgut brome	Introduced	Moderate
Bromus hordeaceus	Soft chess	Introduced	Limited
Bromus madritensis subsp. *rubens*	Foxtail brome	Introduced	High
Bromus rubens	Red brome	Introduced	High
Carex amplifolia	Ample leaved sedge	Native	
Cynodon dactylon	Bermuda grass	Introduced	Moderate
Cyperus eragrostis	Tall cyperus	Native	
Deschampsia danthonioides	Annual hairgrass	Native	
Echinochloa crus-galli	Barnyard grass	Introduced	
Eleocharis macrostachya	Spike rush	Native	
Elymus caput-medusae	Medusa head	Introduced	High
Festuca microstachys	Small fescue	Native	
Festuca myuros	Rattail sixweeks grass	Introduced	Moderate

Scientific Name	Common Name	Origin	Cal-ICP Rating
Festuca perennis	Italian rye grass	Introduced	Moderate
Gastridium phleoides	Nit grass	Introduced	
Hordeum marinum subsp. *gussoneanum*	Barley	Introduced	
Hordeum murinum	Foxtail barley	Introduced	Moderate
Juncus bufonius	Common toad rush	Native	
Juncus mexicanus	Mexican rush	Native	
Juncus patens	Rush	Native	
Juncus xiphioides	Iris leaved rush	Native	
Muhlenbergia rigens	Deergrass	Native	
Paspalum dilatatum	Dallis grass	Introduced	
Poa annua	Annual blue grass	Introduced	
Poa bulbosa	Bulbous blue grass	Introduced	
Polypogon monspeliensis	Annual beard grass	Introduced	Limited
Setaria parviflora	Marsh bristlegrass	Native	
Sorghum halepense	Johnsongrass	Introduced	
Stipa miliacea	Smilo grass	Introduced	
Stipa pulchra	Purple needle grass	Native	
Ferns, Allies, and Club Moss			
Equisetum laevigatum	Smooth scouring rush	Native	
Marsilea vestita	Hairy waterclover	Native	
Selaginella hansenii	Hansen's spike moss	Native	
Woodwardia fimbriata	Western chain fern	Native	

Table D-2. Wildlife species observed in the survey area

Scientific Name	Common Name
Birds	
Agelaius phoeniceus	Red-winged blackbird
Aphelocoma californica	California scrub jay
Baeolophus inornatus	Oak titmouse
Bombycilla cedrorum	Cedar waxwing
Branta canadensis	Canada goose
Buteo jamaicensis	Red-tailed hawk
Buteo lineatus	Red-shouldered hawk
Buteo swainsoni	Swainson’s hawk
Butorides virescens	Green heron
Calypte anna	Anna’s hummingbird
Cathartes aura	Turkey vulture
Charadrius vociferus	Killdeer
Colaptes auratus	Northern flicker

Scientific Name	Common Name
Columba livia	Rock dove
Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Euphagus cyanocephalus	Brewer's blackbird
Falco sparverius	American kestrel
Gallinago gallinago	Common snipe
Haemorhous mexicanus	House finch
Junco hyemalis	Dark-eyed junco
Melanerpes formicivorus	Acorn woodpecker
Meleagris gallopavo	Wild turkey
Melospiza melodia	Song sparrow
Melozone crissalis	California towhee
Mimus polyglottos	Northern mockingbird
Molothrus ater	Brown-headed cowbird
Petrochelidon pyrrhonota	Cliff swallow
Pica nuttalli	Yellow-billed magpie
Picoides nuttallii	Nuttall's woodpecker
Psaltriparus minimus	Bushtit
Sayornis nigricans	Black phoebe
Setophaga coronata	Yellow-rumped warbler
Spinus psaltria	Lesser goldfinch
Streptopelia decaocto	Eurasian collared dove
Sturnus vulgaris	Common starling
Turdus migratorius	American robin
Tringa melanoleuca	Greater yellowlegs
Troglodytes aedon	House wren
Tyrannus verticalis	Western kingbird
Zenaida macroura	Mourning dove
Zonotrichia leucophrys	White-crowned sparrow
Mammals	
Lepus californicus	Black-tailed jackrabbit
Mephitis mephitis	Striped skunk
Otospermophilus beecheyi	California ground squirrel
Sciurus griseus	Western gray squirrel
Thomomys bottae	Botta's pocket gopher
Reptiles	
Sceloporus occidentalis taylori	Sierra Fence Lizard
Amphibians	
Pseudacris sierra	Sierran treefrog
Fish	
Gambusia affinis	Mosquitofish