



## Technical Memorandum

**Reference:** 517031.100  
**Date:** July 30, 2018  
**To:** Mark Chaney  
**Copy to:** Dale Roper  
**From:** Warren Mitchell and Joseph Saler  
**Subject:** Hardin Road Biological Resource Assessment Report.

---

This Technical Memorandum documents the botanical, wildlife and fisheries resources (collectively referred to as biological resources) research and site investigations for the Pit River Tribe's Hardin Road Project. The Hardin Road Project ("proposed project") consists of the following:

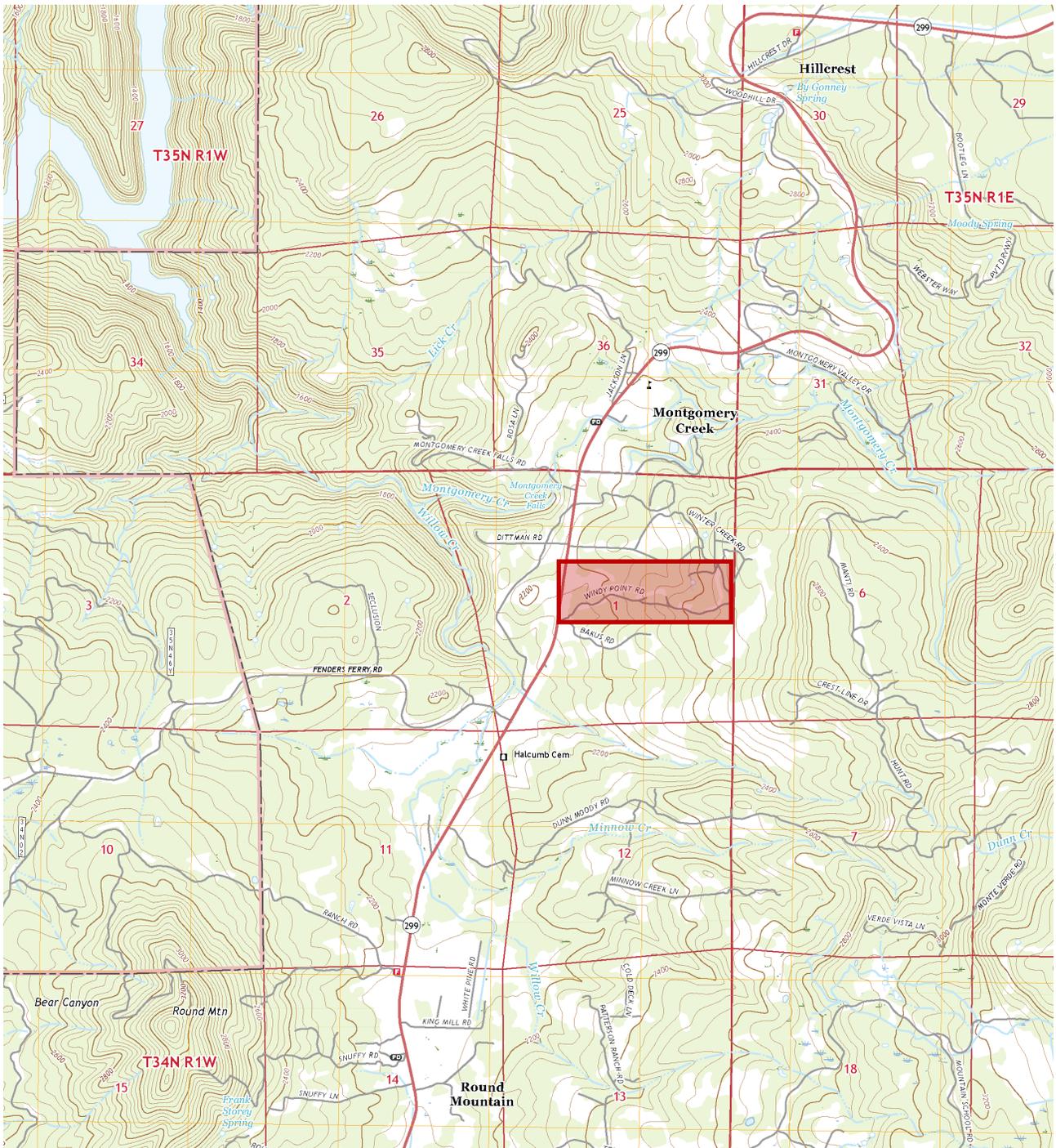
- Development of approximately 1,100 feet of new paved road and reconstruction and paving of approximately 2,750 feet of existing road (total of 3,850 linear feet) to improve the connection to the Tribe's existing Windy Point Road.
- Construction and reconstruction of Tribal roads will include two twelve-foot travel lanes and unpaved shoulders.
- Construction of improvements on existing State Highway 299 that includes widening of approximately 1,300 feet of the highway to accommodate the construction of a new left turn lane onto Hardin Road.
- Hardin Road will be constructed/reconstructed on lands owned by the Pit River Tribe in fee, federal Tribal Trust lands, and private lands. Access across private lands will be through a road easement between the private land owners and the Pit River Tribe.
- Construction of road appurtenances include items such as roadside drainage ditches, culverts, signs and other devices required for the roadway.

The Project is located in Shasta County, United States Geological Survey (USGS) 7.5-minute Montgomery Creek topographic quadrangle, with the project found at Section 1, Township 34 North, Range 11 West, Mount Diablo Base Meridian. **Figure 1** shows the project's site location and **Figure 2** shows the proposed project site road alignment.

On April 13 and July 24, 2018 SHN Botanist Joseph Saler conducted site reconnaissance surveys for special status botanical species within the project area to determine the presence of botanical species and for potential effects resulting from implementation of the project. Additionally, on April 19<sup>th</sup> and 20<sup>th</sup>, and on July 24, 2018 SHN Senior Biologist Warren Mitchell conducted a biological site reconnaissance and surveys for special status wildlife species<sup>1</sup> and their habitats within the project area to assess the potential effects associated with the proposed development of the Hardin Road project.

---

<sup>1</sup> The Term "Special Status Species" is used collectively to refer to species that are state or federally listed, species that are state or federal candidates for listing, and all species listed by the California Natural Diversity Database. This term is consistent with the biological resources that need to be assessed pursuant to the California Environmental Quality Act and the National Environmental Policy Act.



Original Scale 1:24,000

Project Location



Source: USGS Montgomery Creek Quad, 2018



**Hardin Road Project  
Pit River Tribe Roads Department  
NEPA Environmental Assessment**

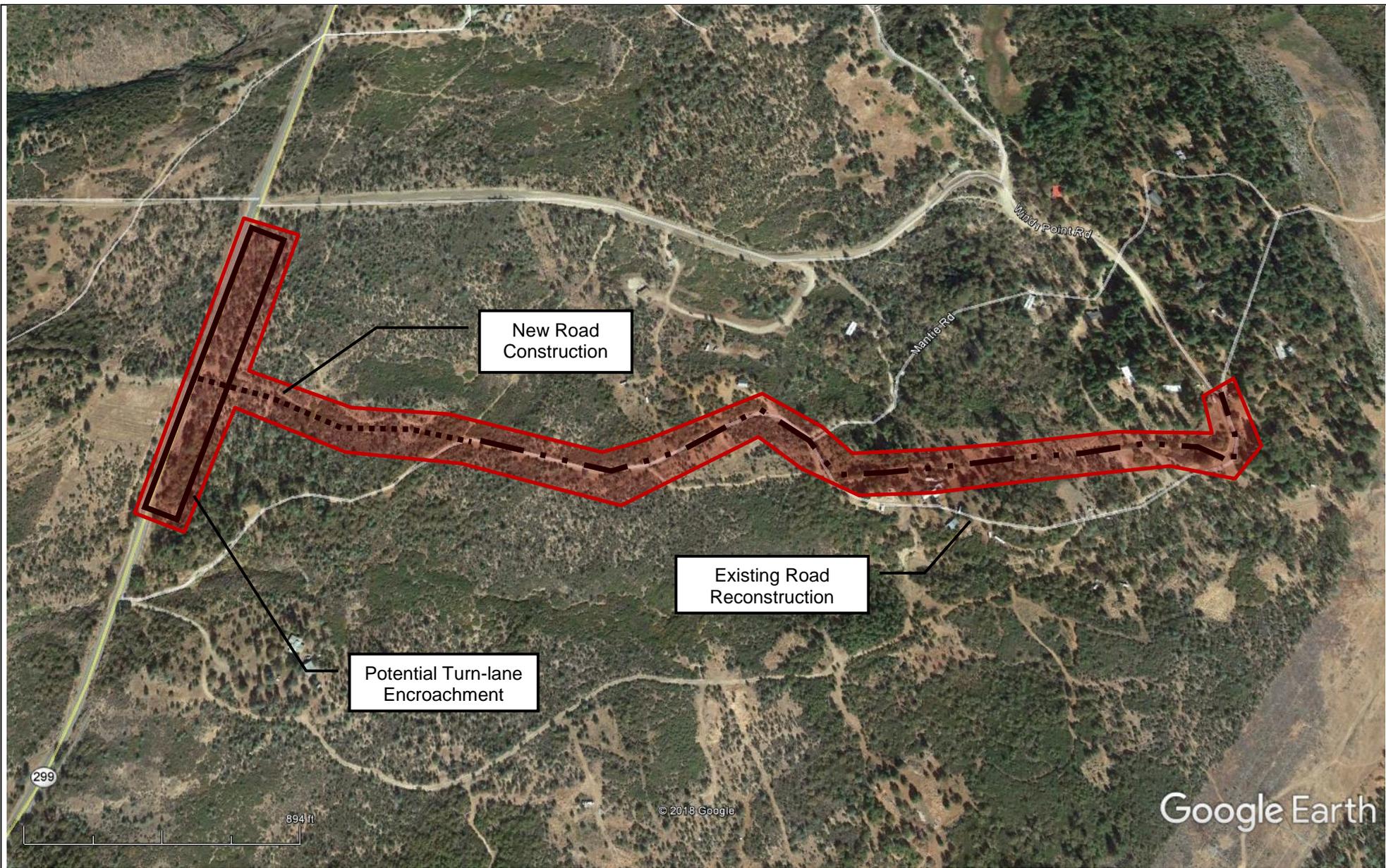
**Project Location**

JOB #517031.100

October 2018

I:\2017\517031-Hardin-Road\100-Environmental\Figs\Figure 1-Project Location.docx

**Figure #2**



Source: Google Earth, 12/2017

Potential Area of Investigation



**Hardin Road Project**  
**Pit River Indian Trust Lands**  
**Pit River Tribe Roads Department**

**Project Site**  
**New and Reconstruction Alignments**  
 JOB #517031

December 2017

I:\2017\517031-Hardin-Road\100-Environmental\Figs\Figure 2-Project Site.docx

**Figure #2**

## Methodology

The survey protocol for this effort consisted of database queries of State and Federal resources to identify special status species that have potential to occur in the project area. After a review of the database results, focused biological field surveys were conducted for identified species within suitable and potentially suitable habitat available at the project site. Prior to conducting field investigations, the following references were reviewed:

- CNDDDB query for Montgomery Creek quadrangle and its surrounding USGS 7.5-minute topographic quadrangles<sup>2</sup> (CDFW, 2018a).
- United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) was queried for threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat that may occur within the proposed project area and/or may be affected by the proposed project (USFWS, 2018a).
- Biogeographical Information and Observation System (BIOS; CDFW, 2018a).
- Electronic Inventory of Rare and Endangered Vascular Plants of California (California Native Plant Society [CNPS], 2018b) query for a list of all plant species reported for the Montgomery Creek quadrangle and its surrounding USGS 7.5-minute topographic quadrangles.

Based on the result of these database queries, a list of potential plant and animal species for the study area was developed, and is presented as **Table 1-1** (botanical) and **Table 1-2** (wildlife) in **Appendix 1**. These tables includes all plant and animal species reported by the CNDDDB, USFWS and CNPS database queries for species that have potential to occur in the Project area. Database queries identified 43 botanical special status species and 35 wildlife special status species that have potential to occur at, or near the Project site.

Of the 43 botanical species identified from the State and Federal database queries as having the potential to occur within the project area, 17 species have a “Low” potential to occur within the project area, seven (7) species have a “Moderate” potential and two (2) species have a “High” potential to occur at the project site (Butte County morning glory, Butte County fritillary). The potential for occurrence for the balance of botanical species was determined to be “None”. (**Appendix 1, Table 1-1**). Determinations regarding potential for occurrence in the project area were based on the presence and availability of suitable habitat and historical observations of these species near the project area.

Of the 35 potential wildlife species listed by the agency resources, four (4) species have a Low potential to occur within the project area. The potential for occurrence for the balance of wildlife

---

<sup>2</sup> Goose Gap, Devils Rock, Oak Run, Whitmore, Hatchet Mountain Pass, Miller Mountain, Chalk Mountain, Roaring Creek.

species (31) were determined to be None. (**Appendix 1, Table 1-2**). Determinations regarding potential for occurrence in the project area were based on the presence and availability of suitable habitat, access or barrier issues, animal behavior, migration routes and historical observations of these species near the project area.

Using the database generated information, SHN conducted pedestrian field surveys of the project site and its adjoining areas in an attempt to determine if these special status species utilize the project site or its surrounding area where suitable habitat may exist, in order to determine if project activities would have any adverse impacts to individual species, or their habitat.

Botanical Surveys were conducted in April and July of 2018 to ensure survey coverage during the appropriate floristic periods. The first wildlife survey was also conducted in April during the onset of wildlife breeding activities and the second wildlife survey was conducted in July when breeding and nesting activities would be further advanced in conjunction with longer photoperiods and warmer temperatures.

## Biological Investigations

### General Observations of the Area

The Project Site is comprised of a mosaic of mixed grassland, oaks, conifers, scattered shrubs and small drainage systems. This mosaic of habitats provides a myriad of potential habitats for a variety of wildlife use, but it also limits the potential for certain habitat specialist species to exist. A wildfire affected much of the project area in 1992 (the Fountain Fire), as a result, much of the habitat conditions in the Project area have been altered relative to the unburned areas of the region. Vegetation at the project site and surrounding area are comprised primarily of young, immature regenerative growth of trees and shrubs and lacks the mature forest stand characteristics required by many wildlife species (refer to **Photo 1**).



**Photo 1.** Site conditions during the July site investigation.

Several vegetation communities (defined as Alliances) were present within the project area, however the relatively early successional stage of the vegetation within the area make it difficult to determine actual membership and where one vegetation community ends, and another begins. Seven (7) vegetation communities were observed within the project area in addition to seven (7) vegetation associations within the vegetation Alliances. Alliances are a larger scale classification of vegetation communities while Associations are more localized classification of vegetation communities and are contained within a specific Alliance.

Lower elevations of the project area (approximately 2,100-2,250ft elevation) were dominated by grey pine (*Pinus sabiniana*) and blue oak (*Quercus douglasii*). This area most closely resembled a mosaic and intergrading of grey pine woodland (*Pinus sabiniana* woodland Alliance) and Blue oak woodland (*Quercus douglasii* woodland Alliance). Both the grey pine woodland and blue oak woodland vegetation communities have a rarity ranking of G4/S4 meaning relatively secure globally and statewide. The majority of these areas had dense herbaceous layers dominated by non-native grasses or shrub layers dominated by *Ceanothus* and *Arctostaphylos* species. Young blue oaks, grey pine and dense shrub components are a reflection of the stand replacing wildfire that occurred in 1992. Where topography flattened (where water may stand for longer periods of time) near Highway 299, California oat-grass prairie (*Danthonia californica* herbaceous Alliance) was observed. This area showed high relative cover by California oat-grass and little to no shrub layer with scattered blue oak and grey pines present. California oat-grass prairie has a rarity ranking of G4/S3 and is considered relatively uncommon and declining within California and may qualify for protection or avoidance measures (see Mitigation Measure 3).

The mid elevation portions of the project area (approximately 2,250-2,450 ft elevation) are characterized by steeper slopes and dense shrubby vegetation, likely a reflection of poor well-drained soils as well as high fire severity in 1992. Dominant species within this area included wedge-leaf ceanothus (*Ceanothus cuneatus* var. *cuneatus*), deer brush (*Ceanothus integerrimus* var. *integerrimus*), scattered young blue oaks, grey pines and black oaks. Non-native grass dominated openings were scattered throughout the mid-elevation area. This area most closely resembles wedge-leaf *Ceanothus* chaparral (*Ceanothus cuneatus* shrubland Alliance) and deer brush chaparral (*Ceanothus integerrimus* shrubland Alliance) including *Ceanothus integerrimus/Arctostaphylos viscida* association, and may represent early successional vegetation communities following a stand replacing fire. Both the wedge-leaf chaparral, and the deer brush chaparral have a rarity ranking of G4/S4 meaning relatively secure globally and statewide.

The higher elevations of the project area (approximately 2,450ft-2600 ft elevation) were more forested and represented a transition from shrub to forested habitat. Dominant species within this area included ponderosa pine (*Pinus ponderosa*), incense cedar (*Calocedrus decurrens*), Douglas fir (*Pseudotsuga menziesii*) and black oak (*Quercus kelloggii*) as well as several shrubby species including greenleaf (*Arctostaphylos patula*) and whiteleaf (*Arctostaphylos viscida* ssp. *viscida*) manzanita among others. Vegetation communities present within this portion of the project area include ponderosa pine forest (*Pinus ponderosa* forest Alliance), California black-oak forest (*Quercus kelloggii* forest Alliance), greenleaf manzanita chaparral (*Arctostaphylos patula* shrubland Alliance), and whiteleaf manzanita chaparral (*Arctostaphylos viscida* shrubland Alliance). Within the black oak forest alliance six vegetation associations were observed. This included:

- *Quercus kelloggii/Arctostaphylos patula*

- *Quercus kelloggii*/*Arctostaphylos viscida*
- *Quercus kelloggii*/*Ceanothus integerrimus*
- *Quercus kelloggii*/*Pinus ponderosa*/*Arctostaphylos viscida*
- *Quercus kelloggii*/*Pinus ponderosa*/*Ceanothus integerrimus*
- *Quercus kelloggii*/*Pseudotsuga menziesii*

Greenleaf manzanita chaparral and Ponderosa pine forest both have a rarity ranking of G5/S4, meaning secure/increasing globally, and relatively secure statewide. White-leaf manzanita chaparral and California black oak forest both have a rarity ranking of G4/S4 meaning relatively secure both globally and statewide.

Several small ephemeral drainage systems exist throughout the project site. During the April survey, surface flow was evident in the lower reaches of the drainages; however, by the July investigation all stream systems were dry. The ephemeral nature of these watercourses exclude the existence of any viable fish species population from existing at the project site and limit the temporal use of such systems for many species of amphibian and reptile life stages (see **Photo 2**).



**Photo 2.** Ephemeral stream during the April site investigation, this site was dry during the July investigation.

## Botanical Investigations

Two protocol level surveys were conducted within the project area and the immediate surroundings to determine the presence or absence of special status botanical species and to assess habitat suitability for the occurrence of special status botanical species reported from the Burney Mountain West and surrounding 7.5-minute quadrangles. Surveys were conducted on April 13, 2018 from 9:45-11:30pm and on July 24, 2018 from 12:50-2:20pm. Surveys were floristic in nature and all botanical species observed within the project site and immediately adjacent were recorded and are listed in **Appendix 4, Table 4-1.**

A total of 111 botanical species were observed within the project area. Sixty-nine percent (69%) of the botanical species observed were native species, reflecting the relatively undeveloped nature of the project area. The botanical species composition reflects the lower montane mixed coniferous forest, grassland and chaparral habitat found on-site. The shrubland and grassland areas reflect the lower elevations of the project area slope and aspect, as well as relatively recent stand replacing fire history within the project area.

Some commonly observed botanical species associated with the project site will likely be impacted or displaced by this project during project implementation, and habitat availability will be altered with the development of the new road segment, and along the margins of the existing road that will be reconstructed. Habitat within the areas surrounding the project is similar to, and of better quality than, that found within the project area. Therefore, it seems likely that the commonly occurring botanical species currently within the area pre-development will continue to exist within the area surrounding the project. Inadvertent introduction of invasive species to the project site is highly probable as a result of the project and future developments that may occur at a future time, which could further negatively impact native plant populations within the project area and its immediate surroundings.

No special status botanical species or federally listed botanical species were observed at the Project Site or its adjacent surrounding area. Forty-three (43) special status botanical species were identified as having a potential to occur within the Montgomery Creek Quadrangle and the surrounding eight quadrangles. Of the 43 special status species reported as potentially occurring, nine (9) species were determined to have a moderate to high potential of occurring within the project area, seventeen (17) species were determined to have low potential to occur within the project area, and seventeen (17) species were determined to have no potential of occurring within the project area due to a lack of suitable habitat. Species with moderate or high potential of occurrence are described below.

- **Butte County morning-glory** (*Calystegia atriplicifolia* ssp. *buttensis*) is a perennial rhizomatous herb in the Convolvulaceae family. It is neither State nor federally listed, but has a CRPR of 4.2 and a heritage rank of G5T3/S3. Its elevation range is reported from 565 to 1525 meters above sea level. Within its range state-wide, its blooming period is reported as May through July. This species is reported from chaparral and lower montane coniferous forest from dry, mostly open slopes and rocky substrates. Within the nine-quad search, numerous Rarefind occurrences are reported with the nearest approximately 0.5 miles southwest of the study area with an observation date in 2007. **Although suitable habitat may exist within the study area for this species, it was not detected.**

- **Shasta clarkia** (*Clarkia borealis* ssp. *arida*) is an annual herb in the Onagraceae family. It is neither State nor federally listed, but has a CRPR of 1B.1 and a heritage rank of G3T2/S2 and is a BLM sensitive species. Its elevation range is reported from 425 to 595 meters above sea level. Within its range state-wide, its blooming period is reported as June through August. This species is reported from cismontane woodland and lower montane coniferous forest within openings. Within the nine-quad search, several Rarefind occurrences are reported, with the nearest approximately 6.9 miles southwest of the study area with an observation date in 1996. **Although suitable habitat may exist within the study area for this species, it was not detected.**
- **Northern clarkia** (*Clarkia borealis* ssp. *borealis*) is an annual herb in the Onagraceae family. It is neither State nor federally listed, but has a CRPR of 1B.3 and a heritage rank of G3T3/S3 and is a USFW and BLM sensitive species. Its elevation range is reported from 345 to 1540 meters above sea level. Within its range state-wide, its blooming period is reported as June through September. This species is reported from lower montane conifer forest, and is often observed along road cuts. Within the nine-quad search, numerous Rarefind occurrences are reported with the nearest approximately 1.9 miles southeast of the study area with an observation date in 2006. **Although suitable habitat may exist within the study area for this species, it was not detected.**
- **Mountain lady slipper** (*Cypripedium montanum*) is a perennial rhizomatous herb in the Orchidaceae family. It is neither State nor federally listed, but has a CRPR of 4.2 and a heritage rank of G4/S4 and is a USFW and BLM sensitive species. Its elevation range is reported from 185 to 2,225 meters above sea level. Within its range state-wide, its blooming period is reported as March through April. This species is reported from lower montane coniferous forest, broadleaf upland forest, cismontane woodland, and north coast coniferous forest on dry, undisturbed slopes. There is no Rarefind occurrence for this taxon within the nine-quad search. **Although suitable habitat may exist within the study area for this species, it was not detected.**
- **Butte County fritillary** (*Fritillaria eastwoodiae*) is a perennial bulbiferous herb in the Liliaceae family. It is neither State nor federally listed, but has a CRPR of 3.2 and a heritage rank of G3Q/S3. Its elevation range is reported from 350 to 1475 meters above sea level. Within its range state-wide, its blooming period is reported as March through June. This species is usually reported on dry slopes, but it is also found in wet places on serpentine, red clay, or sandy soils. Within the nine-quad search, numerous Rarefind occurrences are reported mostly west of the study area. The nearest observation is approximately 2.5 miles east of the study area with an observation date in 2011. **Although suitable habitat may exist within the study area for this species, it was not detected.**
- **Baker cypress** (*Hesperocyparis bakeri*) is a tree in the Cupressaceae family. It is neither State nor federally listed, but has a CRPR of 4.2 and a heritage rank of G3/S3. Its elevation range is reported from 820 to 1995 meters above sea level. This species is reported from mixed-evergreen forests and chaparral on open slopes, flats, on serpentine or volcanic substrates. There is no Rarefind occurrence for this taxon within the nine-quad search. **Although suitable habitat may exist within the study area for this species, it was not detected.**

- **Long stiped campion** (*Silene occidentalis* ssp. *longistipitata*) is a perennial herb in the Caryophyllaceae family. It is neither State nor federally listed, but has a CRPR of 1B.2 and a heritage rank of G4T2Q/S2 and is a USFW and BLM sensitive species. Its elevation range is reported from 1,095 to 1,830 meters above sea level. Within its range state-wide, its blooming period is reported as June through August. This species is reported from lower montane coniferous forest often in disturbed locations. Within the nine-quad search, three Rarefind occurrences are reported with the nearest approximately 11.3 miles northeast of the study area with an observation date in 2006. **Although suitable habitat may exist within the study area for this species, it was not detected.**
- **Long fruit jewelflower** (*Streptanthus longisiliquus*) is a perennial herb in the Brassicaceae family. It is neither State nor federally listed, but has a CRPR of 4.3 and a heritage rank of G3/S3. Its elevation range is reported from 715 to 1,500 meters above sea level. Within its range state-wide, its blooming period is reported as April through September. This species is reported from lower montane coniferous forest and cismontane woodland within openings. There is no Rarefind occurrence for this taxon within the nine-quad search. **Although suitable habitat may exist within the study area for this species, it was not detected.**
- **Slender false lupine** (*Thermopsis gracilis*) is a perennial rhizomatous herb in the Fabaceae family. It is neither State nor federally listed, but has a CRPR of 4.3 and a heritage rank of G4/S4. Its elevation range is reported from 100 to 1,720 meters above sea level. Within its range state-wide, its blooming period is reported as March through July. This species is reported from lower montane coniferous forest, north coast coniferous forest, chaparral and cismontane woodland within meadows and seeps. There is no Rarefind occurrence for this taxon within the nine-quad search. **Although suitable habitat may exist within the study area for this species, it was not detected.**

Based upon the research and field investigations to determine the presence of botanical species of special concern, including state and federal listed species, no listed or species of special concern were identified as being present at the project site. From these findings, the project will have **No Effect** on federally listed botanical species and no further investigations are warranted.

## Wildlife Investigations

Three daytime pedestrian field investigations of the project site, and its adjacent surroundings, were conducted which yielded a minimal number of wildlife species observations. Mammal observations were limited to three road-kills involving a black-tailed deer, raccoon and a skunk. The lack of a mature, multi-layered forest and associated habitat component may limit the potential for many apex species to utilize the project site. Habitat characteristics observed at the project site, and its surrounding area, provide suitable habitat for a variety of small mammal and bird species that associate with the dense shrubby vegetation which is common throughout the area.

A variety of bird species were detected, visually or audibly, during both survey investigations throughout the Project area (see **Appendix 4, Table 4-2**). No evening surveys were conducted for the presence of owls since no special status owl species were identified by the CNDDDB to occur within the Project's 9 USGS Quadrangle search area.

Several raptor species, such as Cooper's hawk, northern goshawk, eagles Osprey and the American peregrine falcon have been identified by the CNDDDB query to occur within the 9 USGS Quadrangle search of the project area. The three pedestrian surveys of the project site and its surrounding area did not yield any observation of raptors and did not identify any large nests or nesting platforms of raptors.

Any wildlife species that currently utilizes the project site will likely be temporarily displaced during project implementation, however similar habitat conditions exist throughout the adjacent project area, therefore wildlife use and diversity currently using the area pre-development will continue to use the Project Site, post development.

No special status wildlife species or federally listed species were observed at the project site, or its adjacent surrounding area. Of the 35 special status wildlife species identified as having a potential to occur within the Montgomery Creek Quadrangle and its surrounding eight quadrangle area, four species were determined to have a Low potential to occur at the project site (Yellow Warbler, Pallid Bat, Spotted Bat and Western Red-Bat). The balance of species were determined not to be present, or to have no suitable habitat present.

### **Federally Listed Species**

Of the 35-wildlife species evaluated for this Project (**Appendix 1, Table 1-2**), no Federally Listed species identified by the USFWS IPaC query (**Appendix 2**) were observed at the site and the potential for these species to occur at the project site were determined to be None due to the lack of suitable habitat or barriers to anadromy.

Based upon the research and field investigations to determine the presence of wildlife species of special concern, no federally listed species were identified as being present at the project site. From these findings, the project will have **No Effect** on federally listed wildlife species and no further investigations are warranted.

### **State Listed and State Species of Special Concern**

Based on the pre-survey database queries, a total of 34 sensitive wildlife species were identified as having potential to occur within project area (**Appendix 1, Table 1-2**). Accepted practice requires that all CNDDDB species in the surrounding USGS quadrangles (**Appendix 3**) be discussed even though suitable habitat may not occur at the project site. The four species with a Low potential to occur are discussed below:

- **Yellow Warbler (*Setophaga petechia*)**. Breeds in montane chaparral, open coniferous habitats with substantial amounts of brush and riparian woodlands from coastal and desert lowlands up to 2500 m. There is suitable habitat on the project site for the Yellow Warbler, however, none were observed during survey investigations. Recommended mitigations for protection of nesting birds under the Migratory Bird Treaty Act will provide mitigation for this species if it was determined to be present prior to construction activities.
- **Pallid Bat (*Antrozous pallidus*)**. Utilizes a variety of habitats including grasslands, shrublands, woodlands and mixed conifer forests, roosts in caves, crevices, mines and hollow trees.

Roosts must protect bats from high temperatures. There is marginally suitable habitat among the wooded areas of the project site for the Pallid bat, however none were observed or detected using bat survey sonogram equipment during the July survey investigation.

- **Spotted Bat (*Euderma maculatum*).** Habitats include rock crevices, caves and vertical structures within arid deserts, grasslands and mixed conifer forests. Elevations range from below sea level in CA. to above 10,000 ft in NM. There is marginally suitable habitat available from dead and peeling tree bark on the project site and potential water sources within a half mile.
- **Western Red-Bat (*Lasiurus cinereus*).** Roosts include forests, woodlands and mixed conifer forests, often adjacent to streams. Forage habitats include grasslands, shrub lands, open woodland, forests and croplands. There is marginally suitable habitat available from dead, peeling tree bark on the project site and a potential water source within a half mile.

The balance of species identified by research, and confirmed by field investigations, have a potential for occurrence of None, and include the following:

- **Osprey (*Pandion haliaetus*).** Ospreys are associated with rivers, lakes and ocean inlets/bays/estuaries. They are an exclusive fish eater. Nests are platforms at the top of trees, telephone/power poles or other vertical structures that have views of water. There is no suitable habitat on the project site for the Osprey.
- **Cooper's Hawk (*Accipiter cooperii*).** Prefers dense stands of live oak, riparian deciduous or other forest habitats near water. Hunts small birds & mammals, also takes reptiles and amphibians in woodlands and habitat edges. There is no suitable habitat on the project site for the Cooper's Hawk.
- **Northern Goshawk (*Accipiter gentilis*).** The northern goshawk prefers forest habitats comprised of medium to large conifers away from populated areas where it hunts and nests through the tree canopy. May be found near open fields to take small prey or among trees to take smaller bird species. There is no suitable habitat on the project site for the northern goshawk.
- **Golden Eagle (*Aquila chrysaetos*).** The Golden eagle prefers to build large nests high in tree tops or on cliffs. They hunt a variety of habitats such as forest openings and agricultural fields for mammals. There is no suitable habitat on the project site for the Golden eagle.
- **Bald Eagle (*Haliaeetus leucocephalus*).** Wide ranging bird that build large nests high in tree tops or on cliffs. They hunt a variety of habitats such as open water, forest openings, agricultural fields for mammals, also prey upon carrion. There is no suitable habitat on the project site for the Bald eagle.
- **American Peregrine Falcon (*Falco americanus anatum*).** Found in forests, mountain ranges and river valleys. Nest sites are generally 'scraped' into steep cliff faces. Hunts primarily on other birds, but will take small mammals when available. There is no suitable habitat on the project site for the Peregrine falcon.

- **Purple Martin (*Progne subis*)**. Uses woodlands and low elevation coniferous forests, montane hardwoods and riparian habitats. Nests in tall, old trees near a body of water and occasionally in residential areas. There is no suitable habitat on the project site for the Purple Martin.
- **Yellow-headed blackbird (*Xanthocephalus xanthocephalus*)**. Nests in fresh emergent wetland with dense vegetation and deep water, often along borders of lakes or ponds. Forages in emergent wetland and moist, open areas, especially cropland and muddy shores of lacustrine habitat. There is no suitable habitat on the project site for the Yellow-headed Blackbird.
- **California Black Rail (*Laterallus jamaicensis caturniculus*)**. Yearlong resident of saline, brackish and fresh tidal emergent wetland habitats in the SF Bay Area, Sacramento-San Joaquin Delta, Morro Bay and similar conditions. There is no suitable habitat on the project site for the California Black Rail.
- **Rough Sculpin (*Cottus asperimus*)**. Occurs only in Shasta County in the Pit River in the Burney area, including Hat Creek and Fall River and its tributaries and usually occurs in vegetated runs and riffles of creeks and small to medium rivers, usually over mud in clear, fairly deep (3-6ft) water. There is no suitable habitat on the project site for the Rough Sculpin.
- **Bigeye Marbled Sculpin (*Cottus klamathensis macrops*)**. Found in large, clear, cool streams with moderate flows in low-gradient runs and pools with aquatic vegetation and coarse substrates, but are capable of adjusting to some reservoirs. Found in Burney Creek, but downstream of Burney Falls. There is no suitable habitat on the project site for the Bigeye Marbled Sculpin.
- **Pit Roach (*Lavinia symmetricus mitulus*)**. Generally found in small streams are adapted to life in mid-elevation, intermittent water course streams from the Sierra Nevada to S.F Bay streams. Roach are tolerant of a relatively wide range of temperatures and dissolved oxygen levels. There is no suitable habitat on the project site for the Pit Roach.
- **Hardhead (*Mylopharodon conocephalus*)**. Often found in low to mid elevations in relatively undisturbed habitats of larger streams with high water quality. They prefer pools and runs with deep, clear water, slow velocities & rocky substrate. There is no suitable habitat on the project site for the Hardhead.
- **Pit-Klamath Brook Lamprey (*Entosphenus lethophagus*)**. Occur in habitats of clear, cool rivers and streams in areas of fine substrates and beds of aquatic plants. In the Pit River system, they seem to prefer the backwaters of the spring fed Fall River & Hat Creek. There is no suitable habitat on the project site for the Pit-Klamath brook lamprey.
- **Steelhead – Central Valley DPS (population 11.) (*Onchorhynchus mykiss irideus*)**. Occurs in most clean, cool, well oxygenated water stream systems throughout most coastal connected

streams from southern Calif. to the Oregon border. There is no anadromous connection and there is no suitable habitat on the project site for the Steelhead Central Valley DPS Popn. 11.

- **Delta Smelt (*Hypomesus transpacificus*).** Endemic to California only, occurs in the San Francisco Estuary, spawns in fresh water tributaries and rears in low salinity zones. Feeds primarily on zooplankton. There is no anadromous connection and there is no suitable habitat on the project site for the Delta Smelt.
- **Shasta Crayfish (*Pacifastacus fortis*).** Generally found in cool, spring fed headwaters characterized by clean, volcanic cobbles and boulders overlying sand or gravel substrates and is limited to midsections of the Pit River drainage, primarily the Fall River and Hat Creek drainages. There is no suitable habitat on the project site for the Shasta Crayfish.
- **Southern Long-toed Salamander (*Ambystoma macrodactylum sigillatum*).** Associated with permanent water where it lays eggs and young live in water. Adults live under logs and in tunnels of other animals and other cool and moist/wet sites. There is no suitable habitat on the project site for the Southern long-toed Salamander.
- **Shasta Salamander (*Hydromantes shastae*).** Primarily associated with limestone fissures and caverns in valley-foothill hardwood-conifer, ponderosa pine and mixed conifer habitats. Breeds & lays eggs in limestone caverns. There is no suitable habitat on the project site for the Shasta Salamander.
- **Pacific Tailed Frog (*Ascaphus truei*).** A small frog with a tail-like appendage in males. Found in clear, cold swift-moving mountain streams with coarse substrates. During dry weather stays on moist stream-banks. There is no suitable habitat on the project site for the Pacific Tailed Frog.
- **Foothill Yellow-legged Frog (*Rana boylei*).** Found near permanent water bodies of streams, marshes, ponds, lakes. In summer, frogs aestivate in small mammal burrows, leaf litter, or other moist sites in or near riparian areas. Individuals may range far from water along riparian corridors and in damp thickets and forests. There is no suitable habitat on the project site for the Foothill Yellow-legged Frog.
- **California Red-legged Frog (*Rana draytonii*).** Requires a variety of habitats with aquatic breeding elements (pools and backwaters of streams, ponds, marshes, springs, etc.) and upland habitats (downed woody vegetation, leaf litter, small mammal burrows) for protection from desiccation and predators. There is no suitable habitat on the project site for the California Red-legged Frog.
- **Cascades Frog (*Rana cascades*).** Found in wet mountain meadows, sphagnum bogs, ponds, lakes, and streams, in open coniferous forest. Prefers quiet ponds with shallow open water for breeding and egg laying. There is no suitable habitat on the project site for the Cascades Frog.
- **Coast Range Newt (*Taricha tarosa*).** Found along the coast Range Mountains from Mendocino County south to San Diego and a disjunct population in the southern Sierra Nevada from Kern County north to Tulare County from sea level to 4,200 ft. Found in wet

forests, oak forests and woodlands, chaparral and rolling grasslands. There is no suitable habitat on the project site for the Coast Range Newt.

- **Western Pond Turtle (*Emys marmorata*).** Associated with permanent or nearly permanent water (ponds, lakes, streams, ditches) in a wide variety of habitats. Require basking sites on partially submerged logs, rocks, floating vegetation or mud banks. There is no suitable habitat on the project site for the Western Pond Turtle.

Based research and site investigations of the project site and surrounding areas, the proposed project will not have a significant impact on state listed wildlife species or state species of special concern.

## Avoidance and Minimization

No special status plants or animal species were observed at, or adjacent to the project site, therefore no avoidance or minimizations of impacts are recommended. However, California oat-grass prairie is an S3 vegetation community, meaning it is relatively uncommon within California and is in decline. The State of California recommends that loss be minimized. Approximately 0.16 acres of this vegetation community currently exists within the proposed alignment of the Hardin Road new construction segment where it intersects with State Highway 299. The approximately location is shown on **Figure 3**.

While not a listed species, the State recommends that loss be minimized, and as a result Mitigation Measure 3, California Oat-Grass Prairie is included to minimize loss of this habitat.

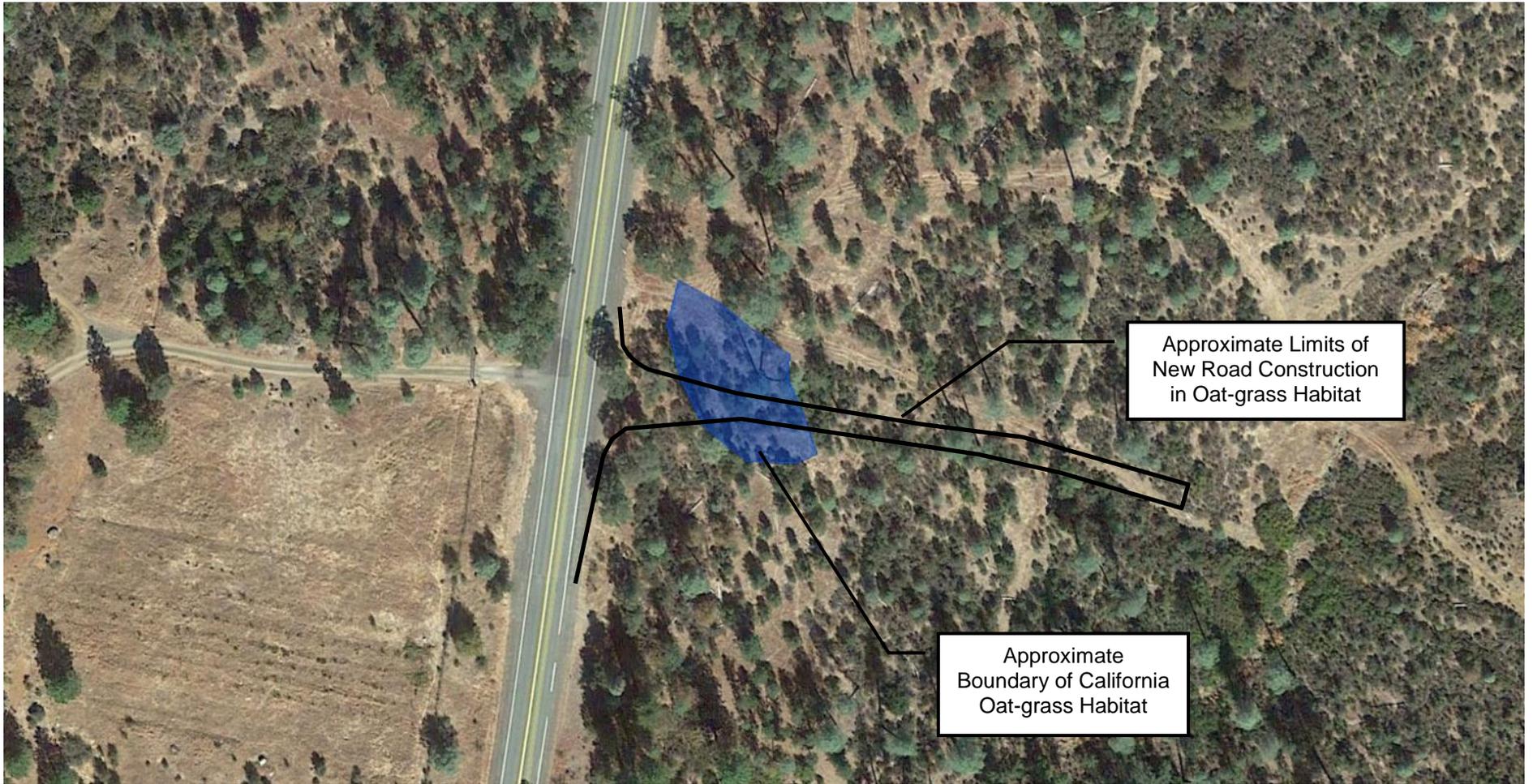
## Recommended Mitigation Measures

Removal of vegetation associated with this project, creates a potential for impacting nesting birds protected by the Migratory Bird Treaty Act (MBTA). Though no nesting birds were documented at the site during the reconnaissance surveys, habitat does exist for a variety of birds. The following mitigation measures are recommended to provide protection for nesting birds:

### Mitigation Measure 1-Nesting Birds

Should the project require that trees be removed as part of construction activities, the following will occur to avoid impacts to nesting migratory birds or raptors that may be utilizing trees at the construction site (State of California Fish and Game Code Sections 3503 and 3503.5):

1. Tree removal should be implemented between September 1 to January 31 when birds are not nesting, **OR**
2. Should trees need to be removed from February 1 to August 31 (nesting season), then nesting bird surveys will be conducted by a qualified biologist no more than one week prior to tree removal during this period.
  - a. If no nesting birds are located during the survey, then tree removal may proceed.
  - b. Should the survey determine that an active nest is located in the trees to be removed during the survey, the biologist shall delineate a no disturbance buffer that is adequate to prevent nesting failure. No trees shall be removed



Approximate Limits of  
New Road Construction  
in Oat-grass Habitat

Approximate  
Boundary of California  
Oat-grass Habitat

Source: Google Earth, 9/2016



NTS

	<b>Hardin Road Project</b> <b>Pit River Indian Trust Lands</b> <b>Pit River Tribe Roads Department</b>		<b>California Oat-Grass Habitat</b> <b>Estimated Area of Impact</b> JOB #517031
	December 2017	I:\2017\517031-Hardin-Road\100-Environmental\Figs\Figure 3-OatGrass.docx	<b>Figure #3</b>

within the buffer until the young have fledged, as determined through additional monitoring by a qualified biologist.

- c. Results of all nesting bird surveys, both positive and negative, will be sent to:  
***The Department of Fish and Wildlife, ATTN: CEQA, 601 Locust Street, Redding, CA 96001.***

### **Mitigation Measure 2-Invasive Species Removal and Management**

New road construction often introduces invasive botanical species to an area previously free of invasive species dominance. The following measures should be incorporated to reduce impacts to native plant populations by reducing cover by invasive species:

1. Any fill material introduced from off site should be certified weed free to reduce the likelihood of invasive species introduction,
2. Invasive species removal and monitoring should be implemented to ensure that invasive species do not become established within the project area,
3. Native seed mix, or sterile barley should be used for erosion control
4. Native plants should be used in replanting and any landscaping associated with the project, and should be monitored to ensure adequate survival.

### **Mitigation Measure 3-California Oat-grass Prairie**

To minimize the potential impacts to California oat-grass prairie, and to mitigate for the potential impacts that the project could have on this vegetation type, the following mitigations are recommended.

1. This vegetation community should be avoided during the implementation of the project by relocating the new roadway segment that impacts identified habitat.
2. If avoidance is not feasible then the following will occur:
  - a. Prior to project development, follow-up site reviews by a qualified biologist will re-assess the California oat-grass prairie vegetation community to determine if the community area has expanded or contracted since development of the site investigations in 2018.
  - b. If the vegetation community is no longer present, then no further action will be required.
  - c. If the follow-up surveys determine that the California oat-grass prairie vegetation type is still present and impacted by the project, the project proponent will coordinate with the California Department of Fish and Wildlife (CDFW) and request site review and concurrence for mitigation ratio determination. At this time, it is recommended that mitigation be at a 3:1 ratio in a suitable mitigation bank.

## **Conclusions**

Investigations of the project site and surrounding areas determined that the majority of the vegetation communities occurring within the project area are relatively common, with the exception

of the California oat-grass prairie (*Danthonia californica* herbaceous Alliance). This vegetation community is relatively uncommon within California and is declining within the state. Impacts to this vegetation community will be reduced with the implementation of Mitigation Measure 3.

Of the 78 special status plant and wildlife species identified from the CNDDDB, IPaC and CNPS database queries for the project site and its adjacent areas, nine (9) botanical species were determined to have a "Moderate" or "High" potential of occurrence within the project area, based on proximity of the project area to observed occurrences and the presence of suitable habitat within the project area. The remaining special status botanical species were determined to have "Low" or no potential of occurrence within the project area. No special status botanical species were observed within the proposed project area.

For the wildlife species, only four were determined to have a "Low" potential for occurrence at the project site. The balance of the potential species were determined to have an occurrence of "None" at the project site.

## Determinations

Based upon the research and field investigations prepared for Hardin Road Project, the project will have **No Effect** on federally listed species and no further investigations are warranted.

Additionally, Based on the results of research and site assessment investigations, this project will have a **Less Than Significant Impact with Mitigation Measures Incorporated**, to state species of special concern.

Sincerely,



Warren Mitchell  
Senior Wildlife Biologist



Joseph Saler  
Project Botanist

## References Cited

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds). (2012). *The Jepson Manual: Vascular Plants of California, Second Edition*. Berkeley, CA: University of California Press, Berkeley.
- Birds of North America Online. Cornell Lab of Ornithology. 2018. Internet site – [www.bna.birds.cornell.edu](http://www.bna.birds.cornell.edu)
- California Department of Fish and Game. (1998). *Fish and Game Code*. Sacramento, CA:CDFW.
- California Department of Fish and Wildlife. (November 2009). "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities." Accessed at: [https://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols\\_for\\_Surveying\\_and\\_Evaluating\\_Impacts.pdf](https://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf)
- . (2018a). California Natural Diversity Database Accessed at: URL: <http://www.dfg.ca.gov/biogeodata/cnddb> . July 2018
- . (2018b). Biogeographic Information and Observation System. Accessed at: [URL:http://bios.dfg.ca.gov/](http://bios.dfg.ca.gov/). April 19, 2018.
- Moyle, Peter B. and Daniels, Robert A, 1982. *Fishes of the Pit River System, McCloud River System and Surprise Valley Region*, University of California Press.
- Morey, S. 2002. *California Wildlife Habitat Relations, Version 7.0*.
- National Audubon Society (1994). *Field Guide to North American Birds, Western Region*. The Audubon Field Guide Series, Random House, Inc.
- Northern California Bats (NorCalBats). 2018. Internet site – [www.norcalbats.org](http://www.norcalbats.org).
- Shuford, W. David and Gardali, Thomas, Editors. Feb. 2008. *Studies of Western Birds No. 1: California Bird Species of Special Concern*. Western Field Ornithologists and California Department of Fish and Game.
- Stebbins, Robert C. 2003. *Peterson Field Guides: Reptiles and Amphibians, Third Edition*. The Peterson Field Guide Series. Houghton Mifflin Company.
- U.S. Department of the Interior, Fish and Wildlife Service. (2018). *Listed/Proposed Threatened and Endangered Species (Candidates Included) for the Hardin Road Project, Consultation Code: 08ESMF00-2018-SLI-1734, Event Code: 08ESMF00-2018-E-05014*. April 2, 2018
- U.S. Geological Survey. (NR). *7.5-Minute Montgomery Creek Topographic Quadrangle*. NR:USGS.
- Western Bat Working Group. 2018. Internet site: [www.wbwg.org](http://www.wbwg.org)

# Special Status Species Lists

**1**

# Potential Regionally Occurring Sensitive Species

## Hardin Road Project

### Pit River Tribe, Shasta County, California

A combined list of potential regionally occurring sensitive species of botanical and wildlife was generated based on database query of both the US Fish and Wildlife Service Information for Planning and Consultation (USFWS: IPaC) and the California Department of Fish & Wildlife California Natural Diversity Database (CNDDDB: CDFW) for special status species that have the potential to occur in the project area. Those lists are provided as Tables 1-1 and 1-2 respectively in this Appendix.

Each species identified in Table 1-1 and Table 1-2 was evaluated for its potential to occur within the study area according to the following criteria:

1. **None.** Species listed as having “None” with regard to their potential to occur on the study area are those species for which there is no suitable habitat present in the study area. (Habitats in the study area are unsuitable for the species requirements [for example, elevation, hydrology, plant community, disturbance regime, and so on].)
2. **Low.** Species listed as having a “low” potential to occur in the study area are those species for which:
  - a. There is no known record of occurrence in the vicinity of the study area, and
  - b. There is marginal or very limited suitable habitat present in the study area.
3. **Moderate.** Species listed as having a “moderate” potential to occur on the study area are those species for which:
  - a. There is a known record of occurrence in the vicinity of the study area, and
  - b. There is suitable habitat present in the study area.
4. **High.** Species listed as having a “high” potential to occur in the study area are those species for which:
  - a. There is a known record of occurrence in the vicinity of the study area (there are many records and/or records in close proximity), and
  - b. There is highly suitable habitat present in the study area.
5. **Present.** Species listed as “present” in the study area are those species for which the species was observed in the study area during the investigations.

**Table 1-1**      **Regionally Occurring Special Status Plant Species Scoping List CNDDDB, CNPS, IPaC**  
**Hardin Road Project**  
**Montgomery Creek and Surrounding 7.5 min Quadrangles**

Scientific Name	Common Name	Family	Federal List <sup>1</sup>	State List <sup>1</sup>	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	Rare Plant Rank <sup>3</sup>	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Adiantum shastense</i>	Shasta maidenhair fern	Pteridaceae	None	None	G3	S3	4.3	Apr-Aug	Lower montane coniferous forest.	Sometimes carbonate. 330-1535 m.	Low
<i>Ageratina shastensis</i>	Shasta ageratina	Asteraceae	None	None	G3	S3	1B.2	June-Oct	Chaparral, lower montane coniferous forest.	Rocky, sometimes limestone. 365-1725 m.	Low
<i>Agrostis hendersonii</i>	Henderson's bent grass	Poaceae	None	None	G2Q	S2	3.2	Apr.-June	Valley and foothill grassland, vernal pools.	Moist places in grassland or vernal pool habitat. 65-1030 m.	Low
<i>Allium sanbornii</i> var. <i>sanbornii</i>	Sanborn's onion	Alliaceae	None	None	G4T3-T4	S3S4	4.2	May-Sept	Chaparral, cismontane woodland, lower montane conifer forest.	Usually on serpentine outcrops. 260-1510 m.	Low
<i>Arctostaphylos malloryi</i>	Mallory's manzanita	Ericaceae	None	None	G3	S3	4.3	Apr-July	Chaparral, lower montane conifer forest.	Volcanic soils. 800-1275 m.	Low
<i>Botrychium crenulatum</i>	scalloped moonwort	Ophioglossaceae	None	None	G4	S3	2B.2	Jun-Sept	Bogs and fens, meadows and seeps, upper and lower montane conifer forests, marshes and swamps.	Moist meadows, freshwater marsh, and near creeks. 1185-3110 m.	Low
<i>Botrychium minganense</i>	Mingan moonwort	Ophioglossaceae	None	None	G4G5	S3	2B.2	July-Sept	Lower montane coniferous forest, upper montane coniferous forest, bogs and fens, meadows and seeps.	Creek banks in mixed conifer forest. 1190-3295 m.	None
<i>Botrypus virginianus</i>	rattlesnake fern	Ophioglossaceae	None	None	G5	S2	2B.2	June-Sept	Bogs, fens, meadows and seeps, lower montane conifer forest, riparian forest, N. coast conifer forest, wetland	710-1405 m.	Low
<i>Brasenia schreberi</i>	watershield	Cabombaceae	None	None	G5	S3	2B.3	June-Sept	Freshwater marshes and swamps.	Aquatic from water bodies both natural and artificial in California. 30-2200 m.	None
<i>Calochortus syntrophus</i>	Callahan's mariposa lily	Liliaceae	None	None	G1	S1	1B.1	May-June	Cismontane woodland, valley and foothill grassland.	In vernal mesic areas. 430-1220 m.	Low

**Table 1-1** Regionally Occurring Special Status Plant Species Scoping List CNDDDB, CNPS, IPaC  
**Hardin Road Project**  
**Montgomery Creek and Surrounding 7.5 min Quadrangles**

Scientific Name	Common Name	Family	Federal List <sup>1</sup>	State List <sup>1</sup>	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	Rare Plant Rank <sup>3</sup>	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	Butte County morning-glory	Convolvul-aceae	None	None	G5T3	S3	4.2	May-July	Chaparral, lower montane coniferous forest.	Dry, mostly open slopes. Rocky substrates. 565-1525 m.	High
<i>Cardamine bellidifolia</i> var. <i>pachyphylla</i>	fleshy toothwort	Brassic-aceae	None	None	G5T4	S3	4.3	Jun-Aug	Alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest.	Rocky sites; talus and scree. 900-2835m.	None
<i>Carex comosa</i>	bristly sedge	Cyperaceae	None	None	G5	S2	2B.1	May-Sept	Marshes and swamps, coastal prairie, valley and foothill grassland.	Lake margins, wet places; site below sea level is on a Delta island. -5-1620 m.	None
<i>Carex lasiocarpa</i>	woolly-fruited sedge	Cyperaceae	None	None	G5	S2	2B.3	June-July	Bogs and fens, marshes and swamps.	Sphagnum bogs, freshwater marsh, lake margins. 600-1965 m.	None
<i>Clarkia borealis</i> ssp. <i>arida</i>	Shasta clarkia	Onagraceae	None	None	G3T2	S2	1B.1	June-Aug	Cismontane woodland, lower montane coniferous forest.	Openings. 425-595 m.	Moderate
<i>Clarkia borealis</i> ssp. <i>borealis</i>	northern clarkia	Onagraceae	None	None	G3T3	S3	1B.3	June-Sept	Chaparral, cismontane woodland, lower montane coniferous forest.	Often seen in road cuts. 345-1540 m.	Moderate
<i>Crataegus castlegarensis</i>	Castlegar hawthorne	Rosaceae	None	None	G5	S1S3	3	May-July	Riparian woodland.	Moist rocky loam. 0-975 m.	Low
<i>Cypripedium montanum</i>	mountain lady's-slipper	Orchidaceae	None	None	G4	S4	4.2	Mar-April	Lower montane conifer forest, broadleaf upland forest, cismontane woodland, N. coast conifer forest.	On dry, undisturbed slopes. 185-2225 m.	Moderate
<i>Drosera anglica</i>	English sundew	Droseraceae	None	None	G5T3	S3	4.3	June-Sept	Bogs and fens, meadows and seeps.	600-2045 m.	None
<i>Erigeron inornatus</i> var. <i>calidipetris</i>	hot rock daisy	Asteraceae	None	None	G5T3	S3	4.3	June-Sept	Lower montane coniferous forest.	Loose sand, lava beds, depression edges. Also in pine/fir woods. 1100-1935 m.	Low
<i>Erythranthe taylorii</i>	Shasta limestone monkeyflower	Phrymaceae	None	None	G2	S2	1B.1	Feb-May	Cismontane woodland, lower montane coniferous forest.	Openings, carbonate crevices and rocky outcrops. 325-1040 m.	None

**Table 1-1** Regionally Occurring Special Status Plant Species Scoping List CNDDDB, CNPS, IPaC  
**Hardin Road Project**  
**Montgomery Creek and Surrounding 7.5 min Quadrangles**

Scientific Name	Common Name	Family	Federal List <sup>1</sup>	State List <sup>1</sup>	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	Rare Plant Rank <sup>3</sup>	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Erythronium shastense</i>	Shasta fawn lily	Liliaceae	None	None	G2	S2	1B.2	Feb-April	Cismontane woodland, lower montane coniferous forest.	Usually carbonate, rocky, north-facing or 1shaded slopes. 345-1020 m.	None
<i>Fritillaria eastwoodiae</i>	Butte County fritillary	Liliaceae	None	None	G3Q	S3	3.2	Mar-June	Chaparral, cismontane woodland, lower montane coniferous forest.	Usually on dry slopes but also found in wet places; soils can be serpentine, red clay, or sandy 4550-1475 m.	High
<i>Hesperocypris bakeri</i>	Baker cypress	Cypress-aceae	None	None	G4	S4	4.2	Conifer	Lower montane coniferous forest, chaparral.	Mixed-evergreen forests, open slopes, flats, on serpentine or volcanic substrates. 820-1995 m.	Moderate
<i>Limnanthes floccosa</i> ssp. <i>bellingermana</i>	Bellinger's meadowfoam	Limnanth-aceae	None	None	G4T2-T3	S1	1B.2	Apr-June	Meadows and seeps, cismontane woodland.	Vernally wet sites including wet edges of meadows, and damp, stony flats. 300-1100 m.	Low
<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	woolly meadowfoam	Limnanth-aceae	None	None	G4T4	S3	4.2	Mar-June	Chaparral, cismontane woodland, valley and foothill grassland, vernal pools.	Vernally wet areas, ditches, and ponds. 60-1335 m.	Low
<i>Lycopus uniflorus</i>	northern bugleweed	Lamiaceae	None	None	G5	S4	4.3	June-Sept	Bogs and fens, marshes and swamps.	Wet places. 5-2000 m.	None
<i>Neviusia cliftonii</i>	Shasta snow-wreath	Rosaceae	None	None	G2	S2	1B.2	April-June	Cismontane woodland, lower montane coniferous forest, riparian woodland.	Shaded, north-facing, or sheltered canyons. Sometimes on limestone. Mesic areas. 330-540 m.	None
<i>Penstemon heterodoxus</i> var. <i>shastensis</i>	Shasta beardtongue	Plantagin-aceae	None	None	G5-T3	S3	4.3	May-Sept	Lower and upper montane conifer forests, broadleaf upland forest, chaparral, meadows and seeps.	Gravelly volcanic substrates, sandy granite, moist grassy meadows. 1100-2400 m.	None
<i>Poa sierrae</i>	Sierra blue grass	Poaceae	None	None	G3	S3	1B.3	April-July	Lower montane coniferous forest.	Shady, moist, rocky slopes. Often in canyons. 365-1500 m.	None

**Table 1-1** Regionally Occurring Special Status Plant Species Scoping List CNDDDB, CNPS, IPaC  
**Hardin Road Project**  
**Montgomery Creek and Surrounding 7.5 min Quadrangles**

Scientific Name	Common Name	Family	Federal List <sup>1</sup>	State List <sup>1</sup>	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	Rare Plant Rank <sup>3</sup>	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
<i>Sidalcea celata</i>	Redding checkerbloom	Malvaceae	None	None	G2G3	S2S3	3	April-Aug	Cismontane woodland.	Sometimes on serpentine. 135-1525 m.	Low
<i>Sidalcea gigantea</i>	giant checkerbloom	Malvaceae	None	None	G3	S3	4.3	(Jan-Jun) July-Oct	Lower and upper montane conifer forests, meadows and seeps.	Moist areas, such as in meadows or at the edges of wet meadows, along creeks, or at seeps and springs. 670-1950 m.	Low
<i>Silene occidentalis</i> ssp. <i>longistipitata</i>	long-stiped campion	Caryophyll-aceae	None	None	G4T2-Q	S2	1B.2	June-August	Chaparral, lower montane coniferous forest, upper montane coniferous forest.	1000-2000 m.	Moderate
<i>Smilax jamesii</i>	English Peak greenbrier	Smilac-aceae	None	None	G3G4	S3S4	4.2	May-July (Aug-Oct)	North coast conifer forest, broadleaf upland forest, lower and upper montane conifer forests, marshes and swamps.	Along streams and lake margins, sometimes mesic depressions. 505-1975 m.	None
<i>Stellaria longifolia</i>	long-leaved starwort	Caryophyll-aceae	None	None	G5	S2	2B.2	May-Aug	Bogs and fens, meadows and seeps, riparian woodland, upper montane coniferous forest.	Moist areas. 900-1830 m.	None
<i>Streptanthus longisiliquus</i>	long-fruit jewelflower	Brassic-aceae	None	None	G3	S3	4.3	April-Sept	Lower montane conifer forest, cismontane woodland.	Openings. 715-1500 m.	Moderate
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	slender-leaved pondweed	Potamoget-onaceae	None	None	G5T5	S3	2B.2	March-July	Marshes and swamps.	Shallow, clear water of lakes and drainage channels. 300-2150 m.	None
<i>Subularia aquatica</i> ssp. <i>americana</i>	water awlwort	Brassic-aceae	None	None	G5T5	S4	4.3	July-Sept	Upper montane coniferous forest.	Lake margins, wet sites. 1900-3100 m.	None
<i>Thermopsis californica</i> var. <i>argentata</i>	silvery false lupine	Fabaceae	None	None	G4T4	S4	4.3	July-Sept	Lower montane coniferous forest, pinyon-juniper woodland.	665-1595 m.	Low
<i>Thermopsis gracilis</i>	slender false lupine	Fabaceae	None	None	G4	S4	4.3	Mar-July	Meadows and seeps, lower montane coniferous forest, north coast coniferous forest, chaparral, cismontane	100-1720 m.	Moderate

**Table 1-1 Regionally Occurring Special Status Plant Species Scoping List CNDDDB, CNPS, IPaC  
Hardin Road Project  
Montgomery Creek and Surrounding 7.5 min Quadrangles**

Scientific Name	Common Name	Family	Federal List <sup>1</sup>	State List <sup>1</sup>	Global Rank <sup>2</sup>	State Rank <sup>2</sup>	Rare Plant Rank <sup>3</sup>	Bloom Period	General Habitat	Micro-Habitat	Potential of Occurrence
									woodland.		
<i>Trifolium siskiyouense</i>	Siskiyou clover	Fabaceae	None	None	GH	SH	1B.1	June-July	Meadows and seeps.	Mesic sites. 880-1500 m.	None
<i>Triteleia crocea</i> var. <i>crocea</i>	yellow triteleia	Themid-aceae	None	None	G4T4	S3S4	4.3	May-June	Lower montane coniferous forest.	Decomposed granite and serpentine soils. 1200-2000 m.	Low
<i>Vaccinium shastense</i> ssp. <i>shastense</i>	Shasta huckleberry	Ericaceae	None	None	G4T3	S3	1B.3	Dec-May (June-Sept)	Chaparral, cismontane woodland, lower montane coniferous forest, riparian forest, subalpine coniferous forest.	Acidic, mesic. Often on streambanks; sometimes on rocky outcrops, seeps, roadsides, and disturbed areas. 325-1220 m.	Low

**1. Species indicator status as assigned by Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), and California Department of Fish and Wildlife (CDFW)**

C: candidate  
 CT: candidate threatened  
 D: delisted  
 DPS: distinct population segment  
 E: endangered  
 ESU: evolutionarily significant unit

FP: fully protected  
 PT: proposed threatened  
 SSC: species of special concern  
 T: threatened  
 WL: watch list

**2. Species Heritage rank as assigned by California Department of Fish and Wildlife (CDFW)**

G1/S1: critically imperiled  
 G2/S2: imperiled  
 G3/S3: vulnerable  
 G4/S4: apparently secure  
 G5/S5: secure

**3. California Rare Plant Ranking (Formerly California Native Plant Society [CNPS] list)**

1A: Presumed extirpated in California and either rare or extinct elsewhere  
 1B: Rare or Endangered in California and elsewhere  
 2A: Presumed extirpated in California, but more common elsewhere  
 2B: Rare or Endangered in California, but more common elsewhere  
 3: Plants for which we need more information - Review list

4: Plants of limited distribution - Watch list  
 0.1: Seriously threatened in California  
 0.2: Moderately threatened in California  
 0.3: Not very threatened in California

**Table 1-2 CNDDDB and IPaC Potential Regionally Occurring Special Status Wildlife Species  
Hardin Road Development Project  
Montgomery Creek, California**

Species Latin Name	Common Name	Status (Federal/State/CDF W) <sup>1</sup>	General Habitat Requirements	Potential for Occurrence
<b>Amphibians / Reptiles</b>				
<i>Ambystoma macrodactylum sigillatum</i>	southern long-toed salamander	--/--/SSC	Associated with permanent water where it lays eggs and young live in water. Adults live under logs and in tunnels of other animals and other cool and moist/wet sites.	None
<i>Ascaphus truei</i>	Pacific tailed frog	--/--/SSC	Found in clear, cold swift-moving mountain streams with coarse substrates. During dry weather stays on moist stream-banks.	None
<i>Hydromantes shastae</i>	Shasta salamander	--/ST/--	Primarily associated with limestone fissures and caverns in valley-foothill hardwood-conifer, ponderosa pine and mixed conifer habitats. Breeds & lays eggs in limestone caverns.	None
<i>Rana boylei</i>	foothill yellow-legged frog	--/CT/SSC	Occurs in or near permanent water of streams, marshes, ponds, lakes, and other bodies of water. In summer, frogs aestivate in small mammal burrows, leaf litter, or other moist sites in or near riparian areas.	None
<i>Rana draytonii</i>	California red-legged frog	FT/--/SSC	Requires a variety of habitats with aquatic breeding elements (pools and backwaters of streams, ponds, marshes, springs, etc.) and upland habitats (downed woody vegetation, leaf litter, small mammal burrows) for protection from desiccation and predators.	None
<i>Rana cascadae</i>	Cascades frog	--/CE/SSC	Found in wet mountain meadows, sphagnum bogs, ponds, lakes, and streams, in open coniferous forest. Prefers quiet ponds with shallow open water for breeding and egg laying.	None
<i>Taricha torosa</i>	Coast Range newt	--/--/SSC	Found along the coast range mountains from Mendocino County south to San Diego and a disjunct population in the southern Sierra Nevada from Kern County north to Tulare County from sea level to 4,200 ft. Found in wet forests, oak forests and woodlands, chaparral and rolling grasslands.	None

<i>Emys marmorata</i>	Western pond turtle	--/--/SSC	Associated with permanent or nearly permanent water (ponds, lakes, streams, ditches) in a wide variety of habitats. Require basking sites on partially submerged logs, rocks, floating vegetation or mud banks.	None
<b>Birds</b>				
<i>Accipiter cooperii</i>	Coopers hawk	--/--/WL	Prefers dense stands of live oak, riparian deciduous or other forest habitats near water. Hunts small birds & mammals, also takes reptiles and amphibians in woodlands and habitat edges.	None
<i>Accipiter gentilis</i>	Northern goshawk	--/--/SSC	Forest habitats of medium to large conifers where it nests and hunts through the tree canopy. May be found near open fields to take prey of small mammals and birds that are feeding in these agricultural areas.	None
<i>Aquila chrysaetos</i>	Golden eagle	--/--/FP WL	Wide ranging bird that prefers to build nests in high locations such as cliffs. They hunt a variety of habitats such as forest openings and agricultural fields where they take small mammals.	None
<i>Haliaeetus leucocephalus</i>	Bald eagle	FD/SE/FP	Wide ranging bird that build large nests high in tree tops or on cliffs. They hunt a variety of habitats such as open water, forest openings, agricultural fields for mammals, also prey upon carrion.	None
<i>Strix occidentalis caurina</i>	Northern spotted owl	FT/ST/SSC	Northern spotted owl is generally found in coastal to mountainous mature coniferous forests. This species nests in cavities or on natural platforms of dense mature forests.	None
<i>Pandion haliaetus</i>	Osprey	--/--/WL	Ospreys are associated with rivers, lakes and ocean inlets/bays/estuaries. They are an exclusive fish eater. Nests are platforms at the top of trees, telephone/power poles or other vertical structures that have views of water.	None
<i>Falco peregrines anatum</i>	American peregrine falcon	FD/SD/FP	Found in forests, mountain ranges and river valleys. Is also becoming more common in cities with large buildings that can act as breeding locations. Nests are generally 'scraped' into the cliff ledge. Hunts primarily on other birds, but will take small mammals when available.	None
<i>Progne subis</i>	Purple martin	--/--/SSC	Uses woodlands and low elevation coniferous forests, montane hardwoods and riparian habitats. Nests is tall, old trees near a body of water and occasionally in residential areas	None
<i>Xanthocephalus</i>	Yellow-headed	--/--/SSC	Nests in fresh emergent wetland with dense vegetation	None

<i>xanthocephalus</i>	blackbird		and deep water, often along borders of lakes or ponds. Forages in emergent wetland and moist, open areas, especially cropland and muddy shores of lacustrine habitat.	
<i>Setophaga petechia</i>	Yellow warbler	--/--/SSC	Breeds in montane chaparral, open coniferous habitats with substantial amounts of brush and riparian woodlands from coastal and desert lowlands up to 2500 m.	Low
<i>Laterallus jamaicensis coturniculus</i>	California black rail	--/ST/FP	Yearlong resident of saline, brackish and fresh tidal emergent wetland habitats in the SF Bay Area, Sacramento-San Joaquin Delta, Morro Bay and similar conditions.	None
<b>Crustaceans / Mollusks</b>				
<i>Pacifasticus fortis</i>	Shasta Crayfish	FT/SE/--	Generally found in cool, spring fed headwaters characterized by clean, volcanic cobbles and boulders overlying sand or gravel substrates and is limited to midsections of the Pit River drainage, primarily the Fall River and Hat Creek drainages.	None
<b>Fish</b>				
<i>Cottus asperimus</i>	Rough sculpin	--/ST/FP	Occurs only in Shasta County in the Pit River in the Burney area, including Hat Creek and Fall River and its tributaries and usually occurs in vegetated runs and riffles of creeks and small to medium rivers, usually over mud in clear, fairly deep (3-6ft) water.	None
<i>Cottus klamathensis macrops</i>	Bigeye marbled sculpin	--/--/SSC	Found in large, clear, cool streams with moderate flows in low-gradient runs and pools with aquatic vegetation and coarse substrates, but are capable of adjusting to some reservoirs. Found in Burney Creek, but downstream of Burney Falls.	None
<i>Lavinia symmetricus mitrulus</i>	Pit roach	--/--/SSC	Generally found in small streams are adapted to life in mid-elevation, intermittent water course streams from the Sierra Nevada to S.F Bay streams. Roach are tolerant of a relatively wide range of temperatures and dissolved oxygen levels.	None
<i>Mylophardon conocephalus</i>	Hardhead	--/--/SSC	Often found in low to mid elevations in relatively undisturbed habitats of larger streams with high water quality. They prefer pools and runs with deep, clear water, slow velocities & rocky substrate.	None

<i>Entosphenus lethophagus</i>	Pit-Klamath brook lamprey	--/--/SSC	Occur in habitats of clear, cool rivers and streams in areas of fine substrates and beds of aquatic plants. In the Pit River system, they seem to prefer the backwaters of the spring fed Fall River & Hat Creek.	None
<i>Onchorhynchus mykiss irideus (popn. 11)</i>	Steelhead – Central Valley DPS	FT/--/--	Occurs in most clean, cool, well oxygenated water stream systems throughout most coastal connected streams from southern Calif. to the Oregon border.	None
<i>Hypomesus transpacificus</i>	Delta Smelt	FT/SE/--	Endemic to California only, occurs in the San Francisco Estuary, spawns in fresh water tributaries and rears in low salinity zones. Feeds primarily on zooplankton.	None
<b>Mammals</b>				
<i>Canis lupus</i>	Gray wolf	FE/SE/--	Large tracts of land that include forest, range and agriculturally developed areas. Reported in the Bieber area and Lassen County.	None
<i>Vulpes vulpes necator</i>	Sierra Nevada red fox	FC/ST/--	Typically found at high elevations (> 7,000 ft) in the central Sierra Nevada) and utilize a variety of habitats including alpine and barren areas, subalpine, red fir, lodgepole pine, and mixed conifer forests, and meadows.	None
<i>Gulo gulo</i>	California wolverine	FPT/ST/FP	Found in Alpine boreal mountain forests (primarily coniferous). Usually found in areas with snow on the ground in winter. When inactive, occupies den in cave, rock crevice, under fallen tree in thicket, or similar site.	None
<i>Pekania pennanti</i>	Fisher, West Coast DPS	--/SCT/SSC	Utilizes low- to mid-elevation mixed hardwood coniferous forests with a diversity of physical ground structure habitats for prey species. Important Fisher habitat includes relatively large trees, high canopy closure and abundant snags.	None
<i>Antrozous pallidus</i>	Pallid bat	--/--/SSC	Utilizes a variety of habitats including grasslands, shrublands, woodlands and mixed conifer forests, roosts in caves, crevices, mines and hollow trees. Roosts must protect bats from high temperatures.	Low
<i>Corynorhinus townsendii</i>	Townsend's Big-eared Bat	--/--/SSC	Found throughout California in all but subalpine and alpine habitats. Requires mines, tunnels caves and buildings for roosting. Prefer mesic habitats, feeds on a variety of insects.	None
<i>Euderma maculatum</i>	Spotted bat	--/--/SSC	Habitats include rock crevices, caves and vertical structures within arid deserts, grasslands and mixed conifer forests. Elevations range from below sea level in CA. to above 10,000 ft in NM.	Low

<i>Lasiurus cinereus</i>	Western red bat	--/--/SSC	Roost habitats include forests, woodlands and mixed conifer forests, often adjacent to streams. Forage habitats include; grasslands, shrublands, open woodlands, forests and croplands.	Low
--------------------------	-----------------	-----------	---	-----

**1. Abbreviation/Acronyme:**

-- “: No Status/Listing  
DPS: Distinct Population Segment  
ESU: Evolutionarily Significant Unit  
FC: Federal Candidate. This designation includes taxa that require additional information to propose for listing pursuant to the Federal Endangered Species Act (FESA), as amended.  
FD: Federally Delisted, but protected under other federal laws and management plans.  
FE: Federally-listed Endangered, pursuant to the FESA, as amended. This designation includes taxa that are in danger of extinction throughout all or a significant portion of their range.  
FT: Federally-listed Threatened, pursuant to the FESA, as amended. This designation refers to species that are not presently threatened with extinction but are likely to become endangered throughout all or a significant portion of their range in the foreseeable future if special protection and management efforts are not undertaken.  
FPT: Federally Proposed Threatened-while not fully “listed” the Proposed status requires protection as though the species was listed.  
SCE: State Candidate Endangered-Species is a candidate for listing and is protected as such.  
SCT: State Candidate Threatened-Species is a candidate for listing and is protected as such.  
SD: State Delisted, but protected under other state laws and regulations.  
SE: State-listed Endangered, pursuant to California Endangered Species Act (CESA). SE designation includes taxa that are in danger of extinction throughout all or a significant portion of their range.  
SONCC: Southern Oregon Northern California Coast.  
SSC: Species of Special Concern are species that the CDFG consider of conservation concern. These species must be considered pursuant to CEQA.  
ST: State-listed Threatened, pursuant to CESA. ST designation includes taxa that are likely to become endangered throughout a significant portion of their range.  
WL: CDFW Watch List.  
FP: CDFW Fully Protected.

**USFWS IPaC List**

**2**



# United States Department of the Interior



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

In Reply Refer To:

April 02, 2018

Consultation Code: 08ESMF00-2018-SLI-1734

Event Code: 08ESMF00-2018-E-05014

Project Name: Hardin Road

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

To Whom It May Concern:

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

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

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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

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

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

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

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

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

---

Attachment(s):

- Official Species List

## Official Species List

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

This species list is provided by:

**Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

---

## Project Summary

Consultation Code: 08ESMF00-2018-SLI-1734

Event Code: 08ESMF00-2018-E-05014

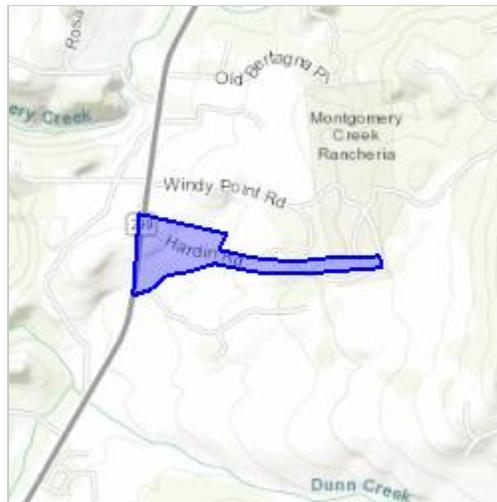
Project Name: Hardin Road

Project Type: TRANSPORTATION

Project Description: Pit River Tribe Housing road development to upgrade existing road to current road standards

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/40.83088821370659N121.92460901842875W>



Counties: Shasta, CA

---

## Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

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

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

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

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

### Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1123">https://ecos.fws.gov/ecp/species/1123</a>	Threatened

### Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened

### Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

---

## Crustaceans

NAME	STATUS
Shasta Crayfish <i>Pacifastacus fortis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8284">https://ecos.fws.gov/ecp/species/8284</a>	Endangered

## Critical habitats

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

---

# CNDDDB Species List

3

**CNDDDB 9-Quad Species List 228 records.**

Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	Quad Code	Quad Name	Data Status	Taxonomic Sort
Animals - Amphibians	Ambystoma macrodactylum sigillatum	southern long-toed salamander	AAAAA01085	None	None	SSC	-	4012167	Miller Mtn.	Mapped	Animals - Amphibians - Ambystomatidae - Ambystoma macrodactylum sigillatum
Animals - Amphibians	Ambystoma macrodactylum sigillatum	southern long-toed salamander	AAAAA01085	None	None	SSC	-	4012177	Hatchet Mtn. Pass	Mapped	Animals - Amphibians - Ambystomatidae - Ambystoma macrodactylum sigillatum
Animals - Amphibians	Ascaphus truei	Pacific tailed frog	AAABA01010	None	None	SSC	-	4012177	Hatchet Mtn. Pass	Mapped	Animals - Amphibians - Ascaphidae - Ascaphus truei
Animals - Amphibians	Hydromantes shastae	Shasta salamander	AAAAD09030	None	Threatened	-	-	4012178	Montgomery Creek	Mapped	Animals - Amphibians - Plethodontidae - Hydromantes shastae
Animals - Amphibians	Hydromantes shastae	Shasta salamander	AAAAD09030	None	Threatened	-	-	4012271	Devils Rock	Mapped	Animals - Amphibians - Plethodontidae - Hydromantes shastae
Animals - Amphibians	Hydromantes shastae	Shasta salamander	AAAAD09030	None	Threatened	-	-	4012281	Goose Gap	Mapped	Animals - Amphibians - Plethodontidae - Hydromantes shastae
Animals - Amphibians	Rana boylei	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	4012281	Goose Gap	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylei
Animals - Amphibians	Rana boylei	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	4012271	Devils Rock	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylei
Animals - Amphibians	Rana boylei	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	4012261	Oak Run	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylei
Animals - Amphibians	Rana boylei	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	4012187	Chalk Mtn.	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylei
Animals - Amphibians	Rana boylei	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	4012167	Miller Mtn.	Mapped	Animals - Amphibians - Ranidae - Rana boylei
Animals - Amphibians	Rana cascadae	Cascades frog	AAABH01060	None	Candidate Endangered	SSC	-	4012167	Miller Mtn.	Mapped	Animals - Amphibians - Ranidae - Rana cascadae
Animals - Amphibians	Taricha torosa	Coast Range newt	AAAAF02032	None	None	SSC	-	4012167	Miller Mtn.	Unprocessed	Animals - Amphibians - Salamandridae - Taricha torosa
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	4012168	Whitmore	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	4012188	Roaring Creek	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii

Animals - Birds	Accipiter gentilis	northern goshawk	ABNKC12060	None	None	SSC	-	4012188	Roaring Creek	Mapped and Unprocessed	Animals - Birds - Accipitridae - Accipiter gentilis
Animals - Birds	Accipiter gentilis	northern goshawk	ABNKC12060	None	None	SSC	-	4012187	Chalk Mtn.	Mapped	Animals - Birds - Accipitridae - Accipiter gentilis
Animals - Birds	Accipiter gentilis	northern goshawk	ABNKC12060	None	None	SSC	-	4012177	Hatchet Mtn. Pass	Mapped and Unprocessed	Animals - Birds - Accipitridae - Accipiter gentilis
Animals - Birds	Accipiter gentilis	northern goshawk	ABNKC12060	None	None	SSC	-	4012178	Montgomery Creek	Mapped	Animals - Birds - Accipitridae - Accipiter gentilis
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP, WL	-	4012271	Devils Rock	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	4012271	Devils Rock	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	4012178	Montgomery Creek	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	4012187	Chalk Mtn.	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	4012188	Roaring Creek	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012188	Roaring Creek	Mapped	Animals - Birds - Accipitridae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012187	Chalk Mtn.	Mapped	Animals - Birds - Accipitridae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012178	Montgomery Creek	Unprocessed	Animals - Birds - Accipitridae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012271	Devils Rock	Unprocessed	Animals - Birds - Accipitridae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012281	Goose Gap	Unprocessed	Animals - Birds - Accipitridae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	4012261	Oak Run	Unprocessed	Animals - Birds - Accipitridae - Pandion haliaetus
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	4012187	Chalk Mtn.	Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	4012167	Miller Mtn.	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	4012271	Devils Rock	Mapped	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Progne subis	purple martin	ABPAU01010	None	None	SSC	-	4012271	Devils Rock	Mapped and Unprocessed	Animals - Birds - Hirundinidae - Progne subis
Animals - Birds	Xanthocephalus xanthocephalus	yellow-headed blackbird	ABPBXB3010	None	None	SSC	-	4012271	Devils Rock	Unprocessed	Animals - Birds - Icteridae - Xanthocephalus xanthocephalus

Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	4012187	Chalk Mtn.	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Laterallus jamaicensis coturniculus	California black rail	ABNME03041	None	Threatened	FP	-	4012178	Montgomery Creek	Mapped	Animals - Birds - Rallidae - Laterallus jamaicensis coturniculus
Animals - Fish	Cottus asperimus	rough sculpin	AFC4E02030	None	Threatened	FP	-	4012187	Chalk Mtn.	Mapped and Unprocessed	Animals - Fish - Cottidae - Cottus asperimus
Animals - Fish	Cottus asperimus	rough sculpin	AFC4E02030	None	Threatened	FP	-	4012188	Roaring Creek	Mapped	Animals - Fish - Cottidae - Cottus asperimus
Animals - Fish	Cottus klamathensis macrops	bigeye marbled sculpin	AFC4E02151	None	None	SSC	-	4012188	Roaring Creek	Mapped	Animals - Fish - Cottidae - Cottus klamathensis macrops
Animals - Fish	Cottus klamathensis macrops	bigeye marbled sculpin	AFC4E02151	None	None	SSC	-	4012187	Chalk Mtn.	Mapped and Unprocessed	Animals - Fish - Cottidae - Cottus klamathensis macrops
Animals - Fish	Lavinia symmetricus mitrulus	Pit roach	AFCJB19027	None	None	SSC	-	4012187	Chalk Mtn.	Mapped and Unprocessed	Animals - Fish - Cyprinidae - Lavinia symmetricus mitrulus
Animals - Fish	Lavinia symmetricus mitrulus	Pit roach	AFCJB19027	None	None	SSC	-	4012188	Roaring Creek	Mapped	Animals - Fish - Cyprinidae - Lavinia symmetricus mitrulus
Animals - Fish	Mylopharodon conocephalus	hardhead	AFCJB25010	None	None	SSC	-	4012188	Roaring Creek	Mapped	Animals - Fish - Cyprinidae - Mylopharodon conocephalus
Animals - Fish	Mylopharodon conocephalus	hardhead	AFCJB25010	None	None	SSC	-	4012187	Chalk Mtn.	Mapped and Unprocessed	Animals - Fish - Cyprinidae - Mylopharodon conocephalus
Animals - Fish	Entosphenus lethophagus	Pit-Klamath brook lamprey	AFBAA02060	None	None	SSC	-	4012187	Chalk Mtn.	Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus lethophagus
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	4012261	Oak Run	Mapped	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	4012261	Oak Run	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 11
Animals - Fish	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	4012167	Miller Mtn.	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 11
Animals - Fish	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	4012168	Whitmore	Mapped	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 11
Animals - Insects	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	4012261	Oak Run	Mapped	Animals - Insects - Cerambycidae - Desmocerus californicus dimorphus
Animals - Mammals	Canis lupus	gray wolf	AMAJA01030	Endangered	Endangered	-	-	4012177	Hatchet Mtn. Pass	Unprocessed	Animals - Mammals - Canidae - Canis lupus

Animals - Mammals	Canis lupus	gray wolf	AMAJA01030	Endangered	Endangered	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Canidae - Canis lupus
Animals - Mammals	Canis lupus	gray wolf	AMAJA01030	Endangered	Endangered	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mammals - Canidae - Canis lupus
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012261	Oak Run	Mapped	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	4012271	Devils Rock	Mapped	Animals - Mammals - Erethizontidae - Erethizon dorsatum
Animals - Mammals	Gulo gulo	California wolverine	AMAJF03010	Proposed Threatened	Threatened	FP	-	4012187	Chalk Mtn.	Mapped	Animals - Mammals - Mustelidae - Gulo gulo
Animals - Mammals	Gulo gulo	California wolverine	AMAJF03010	Proposed Threatened	Threatened	FP	-	4012177	Hatchet Mtn. Pass	Mapped	Animals - Mammals - Mustelidae - Gulo gulo
Animals - Mammals	Martes caurina sierrae	Sierra marten	AMAJF01014	None	None	-	-	4012167	Miller Mtn.	Unprocessed	Animals - Mammals - Mustelidae - Martes caurina sierrae
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012167	Miller Mtn.	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012168	Whitmore	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012177	Hatchet Mtn. Pass	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012178	Montgomery Creek	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012187	Chalk Mtn.	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012188	Roaring Creek	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012271	Devils Rock	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012281	Goose Gap	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	4012261	Oak Run	Mapped	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	4012271	Devils Rock	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Euderma maculatum	spotted bat	AMACC07010	None	None	SSC	-	4012281	Goose Gap	Mapped	Animals - Mammals - Vespertilionidae - Euderma maculatum
Animals - Mammals	Euderma maculatum	spotted bat	AMACC07010	None	None	SSC	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Euderma maculatum

Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	4012178	Montgomery Creek	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	4012177	Hatchet Mtn. Pass	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	4012167	Miller Mtn.	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	4012271	Devils Rock	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Myotis ciliolabrum	western small-footed myotis	AMACC01140	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis ciliolabrum
Animals - Mammals	Myotis evotis	long-eared myotis	AMACC01070	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis evotis
Animals - Mammals	Myotis thysanodes	fringed myotis	AMACC01090	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis thysanodes
Animals - Mammals	Myotis thysanodes	fringed myotis	AMACC01090	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis thysanodes
Animals - Mammals	Myotis volans	long-legged myotis	AMACC01110	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis volans
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mollusks	Monadenia churchi	Klamath sideband	IMGASC7010	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Bradybaenidae - Monadenia churchi
Animals - Mollusks	Monadenia churchi	Klamath sideband	IMGASC7010	None	None	-	-	4012271	Devils Rock	Mapped	Animals - Mollusks - Bradybaenidae - Monadenia churchi
Animals - Mollusks	Monadenia troglodytes wintu	Wintu sideband	IMGASC7092	None	None	-	-	4012271	Devils Rock	Mapped	Animals - Mollusks - Bradybaenidae - Monadenia troglodytes wintu
Animals - Mollusks	Monadenia troglodytes wintu	Wintu sideband	IMGASC7092	None	None	-	-	4012281	Goose Gap	Mapped	Animals - Mollusks - Bradybaenidae - Monadenia troglodytes wintu
Animals - Mollusks	Helminthoglypta hertleini	Oregon shoulderband	IMGASC2280	None	None	-	-	4012271	Devils Rock	Mapped	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta hertleini

Animals - Mollusks	Helminthoglypta hertleini	Oregon shoulderband	IMGASC2280	None	None	-	-	4012281	Goose Gap	Mapped	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta hertleini
Animals - Mollusks	Helminthoglypta hertleini	Oregon shoulderband	IMGASC2280	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Helminthoglyptidae - Helminthoglypta hertleini
Animals - Mollusks	Colligyrus convexus	canary dusksnail	IMGASF8030	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Hydrobiidae - Colligyrus convexus
Animals - Mollusks	Pyrgulopsis archimedis	Archimedes pyrg	IMGASJ0010	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Hydrobiidae - Pyrgulopsis archimedis
Animals - Mollusks	Pyrgulopsis archimedis	Archimedes pyrg	IMGASJ0010	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mollusks - Hydrobiidae - Pyrgulopsis archimedis
Animals - Mollusks	Fluminicola seminalis	nugget pebblesnail	IMGASG3110	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mollusks - Lithoglyphidae - Fluminicola seminalis
Animals - Mollusks	Fluminicola seminalis	nugget pebblesnail	IMGASG3110	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Lithoglyphidae - Fluminicola seminalis
Animals - Mollusks	Lanx patelloides	kneecap lanx	IMGASL7030	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Lymnaeidae - Lanx patelloides
Animals - Mollusks	Lanx patelloides	kneecap lanx	IMGASL7030	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mollusks - Lymnaeidae - Lanx patelloides
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	4012188	Roaring Creek	Mapped and Unprocessed	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	4012271	Devils Rock	Unprocessed	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	4012187	Chalk Mtn.	Mapped and Unprocessed	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	4012178	Montgomery Creek	Unprocessed	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Megomphix californicus	Natural Bridge megomphix	IMGASB2010	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Megomphicidae - Megomphix californicus
Animals - Mollusks	Juga occata	scalloped juga	IMGASK4070	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Pleuroceridae - Juga occata
Animals - Mollusks	Juga occata	scalloped juga	IMGASK4070	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mollusks - Pleuroceridae - Juga occata
Animals - Mollusks	Trilobopsis roperi	Shasta chaparral	IMGASA2030	None	None	-	-	4012188	Roaring Creek	Mapped	Animals - Mollusks - Polygyridae - Trilobopsis roperi
Animals - Mollusks	Trilobopsis roperi	Shasta chaparral	IMGASA2030	None	None	-	-	4012261	Oak Run	Mapped	Animals - Mollusks - Polygyridae - Trilobopsis roperi

Animals - Mollusks	Trilobopsis roperi	Shasta chaparral	IMGASA2030	None	None	-	-	4012271	Devils Rock	Mapped	Animals - Mollusks - Polygyridae - Trilobopsis roperi
Animals - Mollusks	Trilobopsis roperi	Shasta chaparral	IMGASA2030	None	None	-	-	4012281	Goose Gap	Mapped	Animals - Mollusks - Polygyridae - Trilobopsis roperi
Animals - Mollusks	Trilobopsis roperi	Shasta chaparral	IMGASA2030	None	None	-	-	4012178	Montgomery Creek	Mapped	Animals - Mollusks - Polygyridae - Trilobopsis roperi
Animals - Mollusks	Vespericola shasta	Shasta hesperian	IMGASA4070	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Polygyridae - Vespericola shasta
Animals - Mollusks	Vespericola shasta	Shasta hesperian	IMGASA4070	None	None	-	-	4012281	Goose Gap	Mapped	Animals - Mollusks - Polygyridae - Vespericola shasta
Animals - Mollusks	Vespericola shasta	Shasta hesperian	IMGASA4070	None	None	-	-	4012271	Devils Rock	Mapped and Unprocessed	Animals - Mollusks - Polygyridae - Vespericola shasta
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04020	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Unionidae - Anodonta californiensis
Animals - Mollusks	Anodonta californiensis	California floater	IMBIV04020	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mollusks - Unionidae - Anodonta californiensis
Animals - Mollusks	Gonidea angulata	western ridged mussel	IMBIV19010	None	None	-	-	4012188	Roaring Creek	Unprocessed	Animals - Mollusks - Unionidae - Gonidea angulata
Animals - Mollusks	Gonidea angulata	western ridged mussel	IMBIV19010	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Mollusks - Unionidae - Gonidea angulata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012187	Chalk Mtn.	Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012188	Roaring Creek	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012178	Montgomery Creek	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012167	Miller Mtn.	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012168	Whitmore	Mapped	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012281	Goose Gap	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012271	Devils Rock	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	4012261	Oak Run	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Sceloporus graciosus	northern sagebrush lizard	ARACF14032	None	None	-	-	4012187	Chalk Mtn.	Unprocessed	Animals - Reptiles - Phrynosomatidae - Sceloporus graciosus
Community - Aquatic	Lower Pit River/Canyon River (Hardhead/Tule Perch River)	Lower Pit River/Canyon River (Hardhead/Tule Perch River)	CARA2341CA	None	None	-	-	4012187	Chalk Mtn.	Mapped	Community - Aquatic - Lower Pit River/Canyon River (Hardhead/Tule Perch River)

Community - Aquatic	Lower Pit River/Canyon River (Hardhead/Tule Perch River)	Lower Pit River/Canyon River (Hardhead/Tule Perch River)	CARA2341CA	None	None	-	-	4012188	Roaring Creek	Mapped	Community - Aquatic - Lower Pit River/Canyon River (Hardhead/Tule Perch River)
Community - Aquatic	Lower Pit River/Canyon River (Hardhead/Tule Perch River)	Lower Pit River/Canyon River (Hardhead/Tule Perch River)	CARA2341CA	None	None	-	-	4012178	Montgomery Creek	Mapped	Community - Aquatic - Lower Pit River/Canyon River (Hardhead/Tule Perch River)
Community - Aquatic	Lower Pit River/Canyon River (Hardhead/Tule Perch River)	Lower Pit River/Canyon River (Hardhead/Tule Perch River)	CARA2341CA	None	None	-	-	4012271	Devils Rock	Mapped	Community - Aquatic - Lower Pit River/Canyon River (Hardhead/Tule Perch River)
Community - Terrestrial	Alkali Seep	Alkali Seep	CTT45320CA	None	None	-	-	4012261	Oak Run	Mapped	Community - Terrestrial - Alkali Seep
Community - Terrestrial	Alkali Seep	Alkali Seep	CTT45320CA	None	None	-	-	4012168	Whitmore	Mapped	Community - Terrestrial - Alkali Seep
Community - Terrestrial	Northern Interior Cypress Forest	Northern Interior Cypress Forest	CTT83220CA	None	None	-	-	4012178	Montgomery Creek	Mapped	Community - Terrestrial - Northern Interior Cypress Forest
Plants - Vascular	Allium sanbornii var. sanbornii	Sanborn's onion	PMLIL02212	None	None	-	4.2	4012177	Hatchet Mtn. Pass	Unprocessed	Plants - Vascular - Alliaceae - Allium sanbornii var. sanbornii
Plants - Vascular	Allium sanbornii var. sanbornii	Sanborn's onion	PMLIL02212	None	None	-	4.2	4012178	Montgomery Creek	Unprocessed	Plants - Vascular - Alliaceae - Allium sanbornii var. sanbornii
Plants - Vascular	Allium sanbornii var. sanbornii	Sanborn's onion	PMLIL02212	None	None	-	4.2	4012168	Whitmore	Unprocessed	Plants - Vascular - Alliaceae - Allium sanbornii var. sanbornii
Plants - Vascular	Allium sanbornii var. sanbornii	Sanborn's onion	PMLIL02212	None	None	-	4.2	4012188	Roaring Creek	Unprocessed	Plants - Vascular - Alliaceae - Allium sanbornii var. sanbornii
Plants - Vascular	Ageratina shastensis	Shasta ageratina	PDASTBX0R0	None	None	-	1B.2	4012271	Devils Rock	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Ageratina shastensis
Plants - Vascular	Ageratina shastensis	Shasta ageratina	PDASTBX0R0	None	None	-	1B.2	4012281	Goose Gap	Mapped	Plants - Vascular - Asteraceae - Ageratina shastensis
Plants - Vascular	Erigeron inornatus var. calidipetris	hot rock daisy	PDAST3M1Z1	None	None	-	4.3	4012187	Chalk Mtn.	Unprocessed	Plants - Vascular - Asteraceae - Erigeron inornatus var. calidipetris
Plants - Vascular	Cardamine bellidifolia var. pachyphylla	fleshy toothwort	PDBRA0K022	None	None	-	4.3	4012167	Miller Mtn.	Unprocessed	Plants - Vascular - Brassicaceae - Cardamine bellidifolia var. pachyphylla
Plants - Vascular	Streptanthus longisiliquus	long-fruit jewelflower	PDBRA2G400	None	None	-	4.3	4012187	Chalk Mtn.	Unprocessed	Plants - Vascular - Brassicaceae - Streptanthus longisiliquus
Plants - Vascular	Streptanthus longisiliquus	long-fruit jewelflower	PDBRA2G400	None	None	-	4.3	4012188	Roaring Creek	Unprocessed	Plants - Vascular - Brassicaceae - Streptanthus longisiliquus
Plants - Vascular	Brasenia schreberi	watershield	PDCAB01010	None	None	-	2B.3	4012187	Chalk Mtn.	Mapped	Plants - Vascular - Cabombaceae - Brasenia schreberi

Plants - Vascular	<i>Silene occidentalis</i> ssp. <i>longistipitata</i>	long-stiped campion	PDCAR0U161	None	None	-	1B.2	4012187	Chalk Mtn.	Mapped	Plants - Vascular - Caryophyllaceae - <i>Silene occidentalis</i> ssp. <i>longistipitata</i>
Plants - Vascular	<i>Stellaria longifolia</i>	long-leaved starwort	PDCAR0X0M0	None	None	-	2B.2	4012167	Miller Mtn.	Unprocessed	Plants - Vascular - Caryophyllaceae - <i>Stellaria longifolia</i>
Plants - Vascular	<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	Butte County morning-glory	PDCON04012	None	None	-	4.2	4012178	Montgomery Creek	Mapped and Unprocessed	Plants - Vascular - Convolvulaceae - <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>
Plants - Vascular	<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	Butte County morning-glory	PDCON04012	None	None	-	4.2	4012177	Hatchet Mtn. Pass	Mapped	Plants - Vascular - Convolvulaceae - <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>
Plants - Vascular	<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	Butte County morning-glory	PDCON04012	None	None	-	4.2	4012187	Chalk Mtn.	Mapped and Unprocessed	Plants - Vascular - Convolvulaceae - <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>
Plants - Vascular	<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	Butte County morning-glory	PDCON04012	None	None	-	4.2	4012188	Roaring Creek	Mapped and Unprocessed	Plants - Vascular - Convolvulaceae - <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>
Plants - Vascular	<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	Butte County morning-glory	PDCON04012	None	None	-	4.2	4012271	Devils Rock	Unprocessed	Plants - Vascular - Convolvulaceae - <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>
Plants - Vascular	<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	Butte County morning-glory	PDCON04012	None	None	-	4.2	4012281	Goose Gap	Mapped	Plants - Vascular - Convolvulaceae - <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>
Plants - Vascular	<i>Hesperocyparis bakeri</i>	Baker cypress	PGCUP04020	None	None	-	4.2	4012178	Montgomery Creek	Unprocessed	Plants - Vascular - Cupressaceae - <i>Hesperocyparis bakeri</i>
Plants - Vascular	<i>Carex comosa</i>	bristly sedge	PMCYP032Y0	None	None	-	2B.1	4012187	Chalk Mtn.	Mapped	Plants - Vascular - Cyperaceae - <i>Carex comosa</i>
Plants - Vascular	<i>Carex lasiocarpa</i>	woolly-fruited sedge	PMCYP03720	None	None	-	2B.3	4012187	Chalk Mtn.	Mapped	Plants - Vascular - Cyperaceae - <i>Carex lasiocarpa</i>
Plants - Vascular	<i>Drosera anglica</i>	English sundew	PDDRO02010	None	None	-	2B.3	4012177	Hatchet Mtn. Pass	Unprocessed	Plants - Vascular - Droseraceae - <i>Drosera anglica</i>
Plants - Vascular	<i>Arctostaphylos malloryi</i>	Mallory's manzanita	PDERI042V0	None	None	-	4.3	4012178	Montgomery Creek	Unprocessed	Plants - Vascular - Ericaceae - <i>Arctostaphylos malloryi</i>
Plants - Vascular	<i>Vaccinium shastense</i> ssp. <i>shastense</i>	Shasta huckleberry	PDERI181Z1	None	None	-	1B.3	4012261	Oak Run	Mapped	Plants - Vascular - Ericaceae - <i>Vaccinium shastense</i> ssp. <i>shastense</i>
Plants - Vascular	<i>Thermopsis californica</i> var. <i>argentata</i>	silvery false lupine	PDFAB3Z011	None	None	-	4.3	4012188	Roaring Creek	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis californica</i> var. <i>argentata</i>
Plants - Vascular	<i>Thermopsis californica</i> var. <i>argentata</i>	silvery false lupine	PDFAB3Z011	None	None	-	4.3	4012271	Devils Rock	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis californica</i> var. <i>argentata</i>

Plants - Vascular	<i>Thermopsis californica</i> var. <i>argentata</i>	silvery false lupine	PDFAB3Z011	None	None	-	4.3	4012178	Montgomery Creek	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis californica</i> var. <i>argentata</i>
Plants - Vascular	<i>Thermopsis californica</i> var. <i>argentata</i>	silvery false lupine	PDFAB3Z011	None	None	-	4.3	4012168	Whitmore	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis californica</i> var. <i>argentata</i>
Plants - Vascular	<i>Thermopsis gracilis</i>	slender false lupine	PDFAB3Z0C1	None	None	-	4.3	4012168	Whitmore	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis gracilis</i>
Plants - Vascular	<i>Thermopsis gracilis</i>	slender false lupine	PDFAB3Z0C1	None	None	-	4.3	4012178	Montgomery Creek	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis gracilis</i>
Plants - Vascular	<i>Thermopsis gracilis</i>	slender false lupine	PDFAB3Z0C1	None	None	-	4.3	4012271	Devils Rock	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis gracilis</i>
Plants - Vascular	<i>Thermopsis gracilis</i>	slender false lupine	PDFAB3Z0C1	None	None	-	4.3	4012188	Roaring Creek	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis gracilis</i>
Plants - Vascular	<i>Thermopsis gracilis</i>	slender false lupine	PDFAB3Z0C1	None	None	-	4.3	4012281	Goose Gap	Unprocessed	Plants - Vascular - Fabaceae - <i>Thermopsis gracilis</i>
Plants - Vascular	<i>Trifolium siskiyouense</i>	Siskiyou clover	PDFAB402S0	None	None	-	1B.1	4012178	Montgomery Creek	Mapped	Plants - Vascular - Fabaceae - <i>Trifolium siskiyouense</i>
Plants - Vascular	<i>Lycopus uniflorus</i>	northern bugleweed	PDLAM0X080	None	None	-	4.3	4012187	Chalk Mtn.	Unprocessed	Plants - Vascular - Lamiaceae - <i>Lycopus uniflorus</i>
Plants - Vascular	<i>Calochortus syntrophus</i>	Callahan's mariposa-lily	PMLIL0D1S0	None	None	-	1B.1	4012168	Whitmore	Mapped	Plants - Vascular - Liliaceae - <i>Calochortus syntrophus</i>
Plants - Vascular	<i>Calochortus syntrophus</i>	Callahan's mariposa-lily	PMLIL0D1S0	None	None	-	1B.1	4012188	Roaring Creek	Mapped	Plants - Vascular - Liliaceae - <i>Calochortus syntrophus</i>
Plants - Vascular	<i>Erythronium shastense</i>	Shasta fawn lily	PMLIL0U0V0	None	None	-	1B.2	4012271	Devils Rock	Mapped and Unprocessed	Plants - Vascular - Liliaceae - <i>Erythronium shastense</i>
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	4012271	Devils Rock	Mapped and Unprocessed	Plants - Vascular - Liliaceae - <i>Fritillaria eastwoodiae</i>
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	4012188	Roaring Creek	Unprocessed	Plants - Vascular - Liliaceae - <i>Fritillaria eastwoodiae</i>
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	4012261	Oak Run	Unprocessed	Plants - Vascular - Liliaceae - <i>Fritillaria eastwoodiae</i>
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	4012281	Goose Gap	Mapped and Unprocessed	Plants - Vascular - Liliaceae - <i>Fritillaria eastwoodiae</i>
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	4012168	Whitmore	Mapped and Unprocessed	Plants - Vascular - Liliaceae - <i>Fritillaria eastwoodiae</i>
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	4012167	Miller Mtn.	Mapped and Unprocessed	Plants - Vascular - Liliaceae - <i>Fritillaria eastwoodiae</i>
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	4012178	Montgomery Creek	Mapped and Unprocessed	Plants - Vascular - Liliaceae - <i>Fritillaria eastwoodiae</i>
Plants - Vascular	Fritillaria eastwoodiae	Butte County fritillary	PMLIL0V060	None	None	-	3.2	4012187	Chalk Mtn.	Mapped	Plants - Vascular - Liliaceae - <i>Fritillaria eastwoodiae</i>

Plants - Vascular	<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	woolly meadowfoam	PDLIM02043	None	None	-	4.2	4012261	Oak Run	Mapped and Unprocessed	Plants - Vascular - Limnanthaceae - <i>Limnanthes floccosa</i> ssp. <i>floccosa</i>
Plants - Vascular	<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	woolly meadowfoam	PDLIM02043	None	None	-	4.2	4012188	Roaring Creek	Mapped	Plants - Vascular - Limnanthaceae - <i>Limnanthes floccosa</i> ssp. <i>floccosa</i>
Plants - Vascular	<i>Sidalcea celata</i>	Redding checkerbloom	PDMAL110FG	None	None	-	3	4012261	Oak Run	Unprocessed	Plants - Vascular - Malvaceae - <i>Sidalcea celata</i>
Plants - Vascular	<i>Sidalcea gigantea</i>	giant checkerbloom	PDMAL110T0	None	None	-	4.3	4012177	Hatchet Mtn. Pass	Unprocessed	Plants - Vascular - Malvaceae - <i>Sidalcea gigantea</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>arida</i>	Shasta clarkia	PDONA05061	None	None	-	1B.1	4012261	Oak Run	Mapped	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>arida</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>arida</i>	Shasta clarkia	PDONA05061	None	None	-	1B.1	4012271	Devils Rock	Mapped	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>arida</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>borealis</i>	northern clarkia	PDONA05062	None	None	-	1B.3	4012271	Devils Rock	Mapped	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>borealis</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>borealis</i>	northern clarkia	PDONA05062	None	None	-	1B.3	4012188	Roaring Creek	Mapped	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>borealis</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>borealis</i>	northern clarkia	PDONA05062	None	None	-	1B.3	4012281	Goose Gap	Mapped	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>borealis</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>borealis</i>	northern clarkia	PDONA05062	None	None	-	1B.3	4012178	Montgomery Creek	Mapped	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>borealis</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>borealis</i>	northern clarkia	PDONA05062	None	None	-	1B.3	4012168	Whitmore	Mapped	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>borealis</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>borealis</i>	northern clarkia	PDONA05062	None	None	-	1B.3	4012167	Miller Mtn.	Mapped	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>borealis</i>
Plants - Vascular	<i>Clarkia borealis</i> ssp. <i>borealis</i>	northern clarkia	PDONA05062	None	None	-	1B.3	4012187	Chalk Mtn.	Mapped and Unprocessed	Plants - Vascular - Onagraceae - <i>Clarkia borealis</i> ssp. <i>borealis</i>
Plants - Vascular	<i>Botrychium crenulatum</i>	scalloped moonwort	PPOPH010L0	None	None	-	2B.2	4012167	Miller Mtn.	Mapped and Unprocessed	Plants - Vascular - Ophioglossaceae - <i>Botrychium crenulatum</i>
Plants - Vascular	<i>Botrychium crenulatum</i>	scalloped moonwort	PPOPH010L0	None	None	-	2B.2	4012177	Hatchet Mtn. Pass	Mapped	Plants - Vascular - Ophioglossaceae - <i>Botrychium crenulatum</i>
Plants - Vascular	<i>Botrychium minganense</i>	Mingan moonwort	PPOPH010R0	None	None	-	2B.2	4012177	Hatchet Mtn. Pass	Mapped	Plants - Vascular - Ophioglossaceae - <i>Botrychium minganense</i>
Plants - Vascular	<i>Botrychium minganense</i>	Mingan moonwort	PPOPH010R0	None	None	-	2B.2	4012167	Miller Mtn.	Unprocessed	Plants - Vascular - Ophioglossaceae - <i>Botrychium minganense</i>

Plants - Vascular	Botrypus virginianus	rattlesnake fern	PPOPH010H0	None	None	-	2B.2	4012167	Miller Mtn.	Mapped and Unprocessed	Plants - Vascular - Ophioglossaceae - Botrypus virginianus
Plants - Vascular	Botrypus virginianus	rattlesnake fern	PPOPH010H0	None	None	-	2B.2	4012168	Whitmore	Mapped and Unprocessed	Plants - Vascular - Ophioglossaceae - Botrypus virginianus
Plants - Vascular	Botrypus virginianus	rattlesnake fern	PPOPH010H0	None	None	-	2B.2	4012177	Hatchet Mtn. Pass	Unprocessed	Plants - Vascular - Ophioglossaceae - Botrypus virginianus
Plants - Vascular	Botrypus virginianus	rattlesnake fern	PPOPH010H0	None	None	-	2B.2	4012178	Montgomery Creek	Mapped	Plants - Vascular - Ophioglossaceae - Botrypus virginianus
Plants - Vascular	Botrypus virginianus	rattlesnake fern	PPOPH010H0	None	None	-	2B.2	4012188	Roaring Creek	Mapped	Plants - Vascular - Ophioglossaceae - Botrypus virginianus
Plants - Vascular	Cypripedium montanum	mountain lady's-slipper	PMORC0Q080	None	None	-	4.2	4012187	Chalk Mtn.	Unprocessed	Plants - Vascular - Orchidaceae - Cypripedium montanum
Plants - Vascular	Erythranthe taylorii	Shasta limestone monkeyflower	PDPHR01080	None	None	-	1B.1	4012271	Devils Rock	Mapped and Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe taylorii
Plants - Vascular	Erythranthe taylorii	Shasta limestone monkeyflower	PDPHR01080	None	None	-	1B.1	4012281	Goose Gap	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe taylorii
Plants - Vascular	Penstemon heterodoxus var. shastensis	Shasta beardtongue	PDSCR1L5Q0	None	None	-	4.3	4012177	Hatchet Mtn. Pass	Unprocessed	Plants - Vascular - Plantaginaceae - Penstemon heterodoxus var. shastensis
Plants - Vascular	Poa sierrae	Sierra blue grass	PMPOA4Z310	None	None	-	1B.3	4012178	Montgomery Creek	Mapped	Plants - Vascular - Poaceae - Poa sierrae
Plants - Vascular	Poa sierrae	Sierra blue grass	PMPOA4Z310	None	None	-	1B.3	4012271	Devils Rock	Mapped	Plants - Vascular - Poaceae - Poa sierrae
Plants - Vascular	Stuckenia filiformis ssp. alpina	slender-leaved pondweed	PMPOT03091	None	None	-	2B.2	4012187	Chalk Mtn.	Unprocessed	Plants - Vascular - Potamogetonaceae - Stuckenia filiformis ssp. alpina
Plants - Vascular	Adiantum shastense	Shasta maidenhair fern	PPADI030W0	None	None	-	4.3	4012187	Chalk Mtn.	Unprocessed	Plants - Vascular - Pteridaceae - Adiantum shastense
Plants - Vascular	Adiantum shastense	Shasta maidenhair fern	PPADI030W0	None	None	-	4.3	4012271	Devils Rock	Unprocessed	Plants - Vascular - Pteridaceae - Adiantum shastense
Plants - Vascular	Adiantum shastense	Shasta maidenhair fern	PPADI030W0	None	None	-	4.3	4012261	Oak Run	Unprocessed	Plants - Vascular - Pteridaceae - Adiantum shastense
Plants - Vascular	Adiantum shastense	Shasta maidenhair fern	PPADI030W0	None	None	-	4.3	4012281	Goose Gap	Unprocessed	Plants - Vascular - Pteridaceae - Adiantum shastense
Plants - Vascular	Crataegus castlegarensis	Calstlegar hawthorne	PDROS0H9E0	None	None	-	3	4012261	Oak Run	Unprocessed	Plants - Vascular - Rosaceae - Crataegus castlegarensis
Plants - Vascular	Crataegus castlegarensis	Calstlegar hawthorne	PDROS0H9E0	None	None	-	3	4012271	Devils Rock	Unprocessed	Plants - Vascular - Rosaceae - Crataegus castlegarensis

Plants - Vascular	<i>Neviusia cliftonii</i>	Shasta snow-wreath	PDR0S14020	None	None	-	1B.2	4012271	Devils Rock	Mapped and Unprocessed	Plants - Vascular - Rosaceae - <i>Neviusia cliftonii</i>
Plants - Vascular	<i>Neviusia cliftonii</i>	Shasta snow-wreath	PDR0S14020	None	None	-	1B.2	4012281	Goose Gap	Mapped	Plants - Vascular - Rosaceae - <i>Neviusia cliftonii</i>
Plants - Vascular	<i>Neviusia cliftonii</i>	Shasta snow-wreath	PDR0S14020	None	None	-	1B.2	4012178	Montgomery Creek	Mapped	Plants - Vascular - Rosaceae - <i>Neviusia cliftonii</i>
Plants - Vascular	<i>Smilax jamesii</i>	English Peak greenbrier	PMSMI010D0	None	None	-	4.2	4012177	Hatchet Mtn. Pass	Mapped and Unprocessed	Plants - Vascular - Smilacaceae - <i>Smilax jamesii</i>
Plants - Vascular	<i>Smilax jamesii</i>	English Peak greenbrier	PMSMI010D0	None	None	-	4.2	4012187	Chalk Mtn.	Mapped and Unprocessed	Plants - Vascular - Smilacaceae - <i>Smilax jamesii</i>
Plants - Vascular	<i>Smilax jamesii</i>	English Peak greenbrier	PMSMI010D0	None	None	-	4.2	4012281	Goose Gap	Mapped	Plants - Vascular - Smilacaceae - <i>Smilax jamesii</i>
Plants - Vascular	<i>Smilax jamesii</i>	English Peak greenbrier	PMSMI010D0	None	None	-	4.2	4012188	Roaring Creek	Mapped	Plants - Vascular - Smilacaceae - <i>Smilax jamesii</i>
Plants - Vascular	<i>Triteleia crocea</i> var. <i>crocea</i>	yellow triteleia	PMLIL21031	None	None	-	4.3	4012187	Chalk Mtn.	Unprocessed	Plants - Vascular - Themidaceae - <i>Triteleia crocea</i> var. <i>crocea</i>
Plants - Vascular	<i>Triteleia crocea</i> var. <i>crocea</i>	yellow triteleia	PMLIL21031	None	None	-	4.3	4012177	Hatchet Mtn. Pass	Unprocessed	Plants - Vascular - Themidaceae - <i>Triteleia crocea</i> var. <i>crocea</i>



**Observed Plants &  
Animals**

**4**

**Botanical Species Observed  
April 13 and July 24, 2018  
Hardin Road, Pit River Tribe**

**Table 4-1**

Scientific Name	Common Name	Family	Native
<b>Trees</b>			
<i>Calocedrus decurrens</i>	incense cedar	Cupressaceae	Y
<i>Fraxinus latifolia</i>	Oregon ash	Oleaceae	Y
<i>Pinus ponderosa</i>	ponderosa pine	Pinaceae	Y
<i>Pinus sabiniana</i>	grey pine	Pinaceae	Y
<i>Pseudotsuga menziesii</i>	Douglas fir	Pinaceae	Y
<i>Quercus douglasii</i>	blue oak	Fagaceae	Y
<i>Quercus garryana</i> var. <i>garryana</i>	Oregon white oak	Fagaceae	Y
<i>Quercus kelloggii</i>	black oak	Fagaceae	Y
<b>Shrubs</b>			
<i>Arctostaphylos patula</i>	greenleaf manzanita	Ericaceae	Y
<i>Arctostaphylos viscida</i> ssp. <i>viscida</i>	whiteleaf manzanita	Ericaceae	Y
<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	buckbrush	Rhamnaceae	Y
<i>Ceanothus integerrimus</i> var. <i>integerrimus</i>	deer brush	Rhamnaceae	Y
<i>Ceanothus prostratus</i> var. <i>prostratus</i>	mahala mat	Rhamnaceae	Y
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	mountain mahogany	Rosaceae	Y
<i>Eriodictyon californicum</i>	yerba santa	Boraginaceae	Y
<i>Rhus aromatica</i>	fragrant sumac	Anacardiaceae	Y
<i>Rubus armeniacus</i>	Himalayan blackberry	Rosaceae	N
<b>Sedges and Rushes</b>			
<i>Carex multicaulis</i>	forest sedge	Cyperaceae	Y
<i>Juncus bufonius</i> var. <i>bufonius</i>	toad rush	Juncaceae	Y
<i>Juncus patens</i>	spreading rush	Juncaceae	Y
<i>Juncus tenuis</i>	slender rush	Juncaceae	Y
<i>Luzula comosa</i>	hairy woodrush	Juncaceae	Y
<i>Luzula parviflora</i>	small flowered woodrush	Juncaceae	Y
<b>Grasses</b>			
<i>Aegilops cylindrica</i>	jointed goatgrass	Poaceae	N
<i>Aira caryophyllea</i>	silver hairgrass	Poaceae	N
<i>Alopecurus aequalis</i>	short awn foxtail	Poaceae	Y
<i>Briza minor</i>	small quaking grass	Poaceae	N
<i>Briza major</i>	large quaking grass	Poaceae	N
<i>Bromus hordeaceus</i>	soft chess	Poaceae	N
<i>Bromus madritensis</i> ssp. <i>rubens</i>	foxtail brome	Poaceae	N
<i>Cynosurus echinatus</i>	dogtail grass	Poaceae	N
<i>Danthonia californica</i>	California oatgrass	Poaceae	Y
<i>Deschampsia danthanooides</i>	annual hairgrass	Poaceae	Y
<i>Elymus caput-medusae</i>	medusa-head	Poaceae	N
<i>Festuca perennis</i>	wildrye	Poaceae	N
<i>Festuca myorus</i>	rattail grass	Poaceae	N
<i>Hordeum marinum</i>	foxtail barley	Poaceae	N
<i>Poa annua</i>	annual grass	Poaceae	N
<i>Poa bulbosa</i>	bulbous bluegrass	Poaceae	N
<i>Poa pratensis</i>	Kentucky bluegrass	Poaceae	N
<b>Herbs</b>			
<i>Achillea millefolium</i>	yarrow	Asteraceae	Y
<i>Acmispon americanus</i> var. <i>americanus</i>	Spanish lotus	Fabaceae	Y

**Botanical Species Observed**  
**April 13 and July 24, 2018**  
**Hardin Road, Pit River Tribe**

**Table 4-1**

Scientific Name	Common Name	Family	Native
<i>Allium sp.</i>	Onion species	Alliaceae	Y?
<i>Angelica californica</i>	California angelica	Apiaceae	Y
<i>Artemisia douglasiana</i>	California mugwort	Asteraceae	Y
<i>Asyneuma prenanthoides</i>	California harebell	Campanulaceae	Y
<i>Athysanus pusillus</i>	common sand-weed	Brassicaceae	Y
<i>Calochortus tolmiei</i>	hairy star tulip	Liliaceae	Y
<i>Calystegia occidentalis</i> ss. <i>occidentalis</i>	western morning glory	Convolvulaceae	Y
<i>Cardamine oligosperma</i>	bittercress	Brassicaceae	Y
<i>Centaurea solstitialis</i>	yellow star-thistle	Asteraceae	N
<i>Cerastium glomeratum</i>	mouse-ear chickweed	Caryophyllaceae	N
<i>Chicorium intybum</i>	chicory	Asteraceae	N
<i>Chenopodium album</i>	lamb's quarters	Chenopodiaceae	N
<i>Chlorogalum pomeridianum</i> var. <i>pomeridianum</i>	soap plant	Agavaceae	Y
<i>Claytonia parviflora</i> ssp. <i>parviflora</i>	miner's lettuce	Montiaceae	Y
<i>Cirsium vulgare</i>	bull thistle	Asteraceae	N
<i>Claytonia rubra</i> ssp. <i>rubra</i>	red-stem miner's lettuce	Montiaceae	Y
<i>Croton setiger</i>	turkey mullein	Euphorbiaceae	Y
<i>Cryptantha sp.</i>	Cryptantha species	Boraginaceae	Y?
<i>Cynoglossum grande</i>	hounds tongue	Boraginaceae	Y
<i>Daucus carota</i>	Queen Anne's lace	Apiaceae	N
<i>Daucus pusillus</i>	wild carrot	Apiaceae	Y
<i>Dichelostemma capitatum</i>	purple dick	Themidaceae	Y
<i>Drymocallis glandulosa</i> var. <i>glandulosa</i>	sticky cinquefoil	Rosaceae	Y
<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	fringed willow herb	Onagraceae	Y
<i>Epilobium densiflorum</i>	willowherb	Onagraceae	Y
<i>Erodium brachycarpum</i>	White stem filaree	Geraniaceae	N
<i>Erodium cicutarium</i>	heron's bill	Geraniaceae	N
<i>Eryngium articulatum</i>	bee thistle	Apiaceae	Y
<i>Fritillaria recurva</i>	scarlet fritillary	Liliaceae	Y
<i>Galium aparine</i>	cleaver plant	Rubiaceae	Y
<i>Galium bolanderi</i>	Bolander's bedstraw	Rubiaceae	Y
<i>Geranium dissectum</i>	cutleaf geranium	Geraniaceae	N
<i>Helianthus bolanderi</i>	Bolander's sunflower	Asteraceae	Y
<i>Hypericum perforatum</i>	Klamath knotweed	Hypericaceae	N
<i>Hypochaeris radicata</i>	hairy cat's-ear	Asteraceae	N
<i>Iris sp.</i>	Iris species	Iridaceae	Y?
<i>Lactuca serriola</i>	prickly lettuce	Asteraceae	N
<i>Lathyrus sulphureus</i>	sulphur pea	Fabaceae	Y
<i>Lessingia nemaclada</i>	slender stem lessingia	Asteraceae	Y
<i>Limnanthes floccosa</i>	woolly meadowfoam	Limnanthaceae	Y
<i>Linum lewisii</i> var. <i>lewisii</i>	western blue flax	Linaceae	Y
<i>Lomatium caruifolium</i> var. <i>denticulatum</i>	caraway leaf lomatium	Apiaceae	Y
<i>Lomatium sp.</i>	lomatium species	Apiaceae	Y?
<i>Lupinus bicolor</i>	annual lupine	Fabaceae	Y
<i>Madia gracilis</i>	grassy tarweed	Asteraceae	Y
<i>Medicago polymorpha</i>	bur clover	Fabaceae	N

**Botanical Species Observed**  
**April 13 and July 24, 2018**  
**Hardin Road, Pit River Tribe**

**Table 4-1**

Scientific Name	Common Name	Family	Native
<i>Micranthes integrifolia</i>	smooth leaf saxifrage	Saxifragaceae	Y
<i>Navarretia intertexta</i>	needle-leaf navarretia	Polemoniaceae	Y
<i>Navarretia sinistra</i>	Alva day's pincushion	Polemoniaceae	Y
<i>Nemophila pedunculata</i>	little-foot nemophila	Boraginaceae	Y
<i>Pedicularis densiflora</i>	indian warrior	Orobanchaceae	Y
<i>Perideridia parishii</i> ssp. <i>latifolia</i>	yampah	Apiaceae	Y
<i>Petrorhagia dubia</i>	grass pink	Caryophyllaceae	N
<i>Plagiobothrys</i> sp.	popcorn flower	Boraginaceae	Y
<i>Plantago lanceolata</i>	English plantain	Plantaginaceae	N
<i>Primula hendersonii</i>	shooting star	Primulaceae	Y
<i>Ranunculus occidentalis</i> var. <i>occidentalis</i>	western buttercup	Ranunculaceae	Y
<i>Rumex crispus</i>	curly dock	Polygonaceae	N
<i>Sanicula bipinnatifida</i>	purple sanicle	Apiaceae	Y
<i>Sanicula crassicaulis</i>	pacific sanicle	Apiaceae	Y
<i>Solidago velutina</i> ssp. <i>californica</i>	California goldenrod	Asteraceae	Y
<i>Torilis arvensis</i>	field hedge-parsley	Apiaceae	N
<i>Trichostema simulatum</i>	Siskiyou blue curls	Lamiaceae	Y
<i>Trifolium oliganthum</i>	few-flowered clover	Fabaceae	Y
<i>Trifolium subterraneum</i>	subterranean clover	Fabaceae	N
<i>Wyethia angustifolia</i>	narrow leaf mule-ears	Asteraceae	Y
<i>Vicia villosa</i>	hairy vetch	Fabaceae	N
<b>Vines</b>			
<i>Symphoricarpos mollis</i>	creeping snowberry	Caprifoliaceae	Y
<i>Toxicodendron diversilobum</i>	poison oak	Anacardiaceae	Y
<b>111 Species</b>			<b>69% Native</b>

**Observed Wildlife Species**  
**Table 4-2** April 19,20 and July24, 2018  
Hardin Road, Montgomery Creek, CA

Scientific Name	Common Name	Family	Status
<b>Amphibians</b>			
<i>Pseudacris sierra</i> - (tadpoles)	Sierran Treefrog	Hylidae	--
<b>Birds</b>			
<i>Calypte anna</i>	Anna's hummingbird	Trochilidae	MBTA
<i>Cathartes aura</i>	Turkey vulture	Cathartidae	MBTA
<i>Sialia currucoides</i>	Mountain bluebird	Turdidae	MBTA
<i>Corvus brachyrhynchos</i>	American crow	Corvidae	MBTA
<i>Corvus corax</i>	Common raven	Corvidae	MBTA
<i>Colaptes auratus</i>	Northern flicker	Picidae	MBTA
<i>Regulus calendula</i>	Ruby-crowned kinglet	Regulidae	MBTA
<i>Cardellina pusilla</i>	Wilson's warbler	Parulidae	MBTA
<i>Junco hyemalis</i>	Dark-eyed junco	Emberizidae	MBTA
<i>Pheucticus melanocephalus</i>	Black-headed grosbeak	Cardinalidae	MBTA
<i>Turdus migratorius</i>	American robin	Turdidae	MBTA
<i>Spizella passerina</i>	Chipping sparrow	Emberizidae	MBTA
<i>Aphelocoma californica</i>	Western Scrub-jay	Corvidae	MBTA
<i>Melanerpes formicivorus</i>	Acorn woodpecker	Picidae	MBTA
<i>Callipepla californica</i>	California Quail	Odontophoridae	--
<i>Poecile gambeli</i>	Mountain Chickadee	Paridae	MBTA
<i>Thyromanes bewickii</i>	Bewick's Wren	Troglodytidae	MBTA
<i>Chamaea fasciata</i>	Wrentit	Sylviidae	MBTA
<b>Crustaceans and Mollusks</b>			
None Observed			
<b>Fish</b>			
None Observed			
<b>Mammals</b>			
<i>Odocoileus hemionus</i> *	Black-tailed deer		--
<i>Procyon lotor</i> *	Raccoon		--
<i>Mephitis mephitis</i> *	Skunk		--
<b>Reptiles</b>			
<i>Sceloporus occidentalis</i>	Western fence lizard	Phrynosomatidae	--
<b>23 Species</b>			
* Road-kill adjacent to Project site.			



Reference: 517031.500

August 21, 2019

Mark Chaney  
SHN Principle, Redding Office  
350 Hartnell Ave.  
Redding, CA 96002-1875

**Subject: Hardin Road Pre-Construction Nesting Bird Survey - Pit River Tribe.**

Dear Mr. Chaney:

On behalf of Pit River Tribe, SHN is submitting this pre-construction nesting bird survey that was performed in preparation for the Pit River Tribe Road Department and their Hardin Road Access Project (Project).

In preparation of the Pit River Tribe Road Department's Hardin Road Access Project (Project), SHN conducted pre-construction nesting Bird surveys on the afternoon of July 22<sup>nd</sup> and the morning of July 23<sup>rd</sup> 2019 along and adjacent to the proposed Project footprint per Wildlife Mitigation Measures 3.12.2 described in the 2019 Draft Environmental Assessment developed by SHN (SHN 2019).

The pre-construction nesting bird surveys consisted of walking transects, as well as stationary survey stations along the project path that allowed the biologist to observe potential nesting habitats throughout the project area. All birds detected (visually or audibly) was compiled during the surveys were recorded on the data form, including flyovers. A GPS coordinate was taken at each survey station location. The biologist would spend a minimum of ten (10) minutes at each survey station, longer if necessary if observed behavior indicated potential nesting activity, See Attachment 1.

The following behaviors are indicators that an active nest may be present:

1. Carrying materials to builds nests within the survey area
2. Copulations
3. Carrying food or feeding young
4. Carrying fecal sacs away from nest
5. Mate-feeding; repeated "bee-line" flying to likely nest site.
6. Observation of nest
7. Observation of chicks
8. Females giving call or chirp notes alerting their mate they are off the nest
9. Auditory evidence of chicks

When conducting a walking survey, an Active Nest Search component would be implemented and would consist of a thorough search of all suitable trees, shrubs, grasslands, downed trees for low-level or ground nests, as well as standing snags for active nests in and adjacent to the proposed disturbance area.

Mr. Mark Chaney  
**Hardin Road Pre-Construction Nesting Bird Survey Report**  
August 21, 2019  
Page 2

No active nests were located and no nesting behavior was observed in the proposed disturbance area on either survey date, therefore the proposed vegetation clearing activities will have no effect on nesting birds.

Please call me at 707-459-4518 if you have any questions.

Sincerely,

**SHN**



Warren Mitchell  
Senior Biologist

WSM:

Attachments: 1. Nesting Survey Data Forms

**NESTING BIRD  
SURVEY FORMS 1**



PROJECT NO.: 517031.100

DATE: 7/22/19 DAY: Mon Tue Wed Thu Fri Sat Sun

PROJECT: Pit River Tribe - Hardin Road Access Project.

NAME: Warren Mitchell

SURVEY ROUTE:

MAP OF AREA ATTACHED:  
 YES NO

SURVEY TIME: Start: 13:00 End: 15:00

WEATHER:	CLEAR <input checked="" type="checkbox"/>	PARTLY CLOUDY <input type="checkbox"/>	CLOUDY <input type="checkbox"/>	RAIN <input type="checkbox"/>	OTHER: <input type="checkbox"/>	DESCRIBE HABITAT CONDITIONS:
TEMP (°F):	TO 32 <input type="checkbox"/>	32-50 <input type="checkbox"/>	50-70 <input type="checkbox"/>	70-85 <input type="checkbox"/>	85 UP <input checked="" type="checkbox"/>	ru h a nrt
WIND:	STILL <input type="checkbox"/>	LIGHT <input checked="" type="checkbox"/>	MODER. <input type="checkbox"/>	HIGH <input type="checkbox"/>	STORM <input type="checkbox"/>	thickets w/scrub
GROUND:	DRY <input checked="" type="checkbox"/>	DRY/MOIST <input type="checkbox"/>	MOIST <input type="checkbox"/>	WET <input type="checkbox"/>	SATURATED <input type="checkbox"/>	Pines

Field Point	Ctgy.	Species Code	Qty.	Time	Photo	Lat. Lon.	Comments: (Behavior, distance & direction, misc. information, weather changes, etc. Nest Info: (Status, Cond., Height, Size, Material Tree spp. & dbh.))
		ACWD BUSH	2 1	1300 1320		Lat. 40. 83173 Lon. -121. 5	cal #1 flew E, foraging in Pine of 6" cal, from v
		WESS	1	1321 1345		Lat. 40. 83123 Lon. -121. 92631	Vo ng W.
		ACWD	1	1346 1400		Lat. 40. 83129 Lon. -121. 92561	Vocal from WS
				1401 1415		Lat. 40. 83134 Lon. -121. 92499	(B h/ e ea g ed ee
		WESS		1416 1430		Lat. 40. 831 Lon. -121. 92423	Vo (Searching fallen tree to h p s Nets None
				1430 1445		Lat. 40. 83113 Lon. -121. 92397	(Swath cu Manz. - Da v
		TJVV		1446 1500		Lat. 40. 83104 Lon. -121. 92363	Flyover (Scp w/ex s ing road

DISTRIBUTION	1. Office	REPORTED BY:	DATE:
	2. Contractor	BY: <u>W. Mitchell</u>	7/22/19
	3. _____	REVIEWED BY:	DATE:
	4. _____	BY: _____	DATE: _____

Project No.: 517031.100

Biological Monitoring

Name: W. Mitchell

Page 2 of 2

Date: 7/22/19

Field Point	Ctgy.	Species Code	Qty.	Time	Photo	Lat. Lon.	Comments: (Behavior, distance & direction, misc. information, weather changes, etc. Nest Info: Status, Cond., H Size, Material, Tree spp. & dbh.)
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	

Additional Comments (trash, fence, buffer, contractor issues/notes):

Hot, minimal bird activity, resume survey of area in the morning.

DISTRIBUTION

1. Office  
2. Contractor  
3. \_\_\_\_\_  
4. \_\_\_\_\_

REPORTED BY: W. Mitchell DATE: 7/22/19

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_





PROJECT NO.: 517031.100 DATE: 7/23/19 DAY: Mon Tue Wed Thu Fri Sat Sun

PROJECT: **Pit River Tribe - Hardin Road Access Project.**

NAME: Warren Mitchell

SURVEY ROUTE: MAP OF AREA ATTACHED: SURVEY TIME: Start: 07:00 End: 11:51  
 YES NO

WEATHER:	CLEAR <input checked="" type="checkbox"/>	PARTLY CLOUDY <input type="checkbox"/>	CLOUDY <input type="checkbox"/>	RAIN <input type="checkbox"/>	OTHER: <input type="checkbox"/>	DESCRIBE HABITAT CONDITIONS:
TEMP (°F):	TO 32 <input type="checkbox"/>	32-50 <input type="checkbox"/>	50-70 <input checked="" type="checkbox"/>	70-85 <input type="checkbox"/>	85 UP <input type="checkbox"/>	<u>Brushy oak &amp; Manzanita thickets w/scattered mature pines.</u>
WIND:	STILL <input checked="" type="checkbox"/>	LIGHT <input type="checkbox"/>	MODER. <input type="checkbox"/>	HIGH <input type="checkbox"/>	STORM <input type="checkbox"/>	
GROUND:	DRY <input checked="" type="checkbox"/>	DRY/MOIST <input type="checkbox"/>	MOIST <input type="checkbox"/>	WET <input type="checkbox"/>	SATURATED <input type="checkbox"/>	

Field Point	Ctgy.	Species Code	Qty.	Time	Photo	Lat. Lon.	Comments: (Behavior, distance & direction, misc. information, weather changes, etc. Nest Info: (Status, Cond., Height, Size, Material Tree spp. & dbh.)
		ACWO WESS	5 1	0700 1 0715		Lat. 40. 83142 Lon. -121. 92728	Vocalizing from both sides of 299 Flew to the south
		ACWO CBCH?		0716 1 0730		Lat. 40. 83133 Lon. -121. 92670	Vocalizing
		ACWO BUSH	3 1	0731 1 0745		Lat. 40. 83115 Lon. -121. 92651	Vocalizing + forag Vocalizing
		CBCH	3	0746 1 0800		Lat. 40. 83126 Lon. -121. 92631	Flying among tree tops
		BUSH	1	0801 1 0811		Lat. 40. 83141 Lon. -121. 92611	Foraging
		ACWO	4	0812 1 0822		Lat. 40. 83157 Lon. -121. 92606	Vocalizing
		ACWO	2	0823 1 0833		Lat. 40. 83142 Lon. -121. 92566	No ng

DISTRIBUTION	1. Office	REPORTED BY:	<u>W. Mitchell</u>	DATE:	<u>7/23/19</u>
	2. Contractor	REVIEWED BY:		DATE:	
	3. _____				
	4. _____				

Project No.: 517031.100

Biological Monitoring

Name: W. Mitchell

Page 2 of 4

Date: 7/23/19

Field Point	Ctgy.	Species Code	Qty.	Time	Photo	Lat. Lon.	Comments: (Behavior, distance & direction, misc. information, weather changes, etc. Nest Info: Status, Cond., H Size, Material, Tree spp. & dbh.)
		ACWO BUSH	2 1	0834 1 0844		Lat. 40. 83168 Lon. -121.92549	Vocalizing Vocalizing
		ACWO BUSH WESS	3 1 1	0845 1 0855		Lat. 40. 83139 Lon. -121.92522	Vocalizing Vocal. Vocal.
		BUSH ACWO	1 2	0856 1 0906		Lat. 40. 83130 Lon. -121.92478	Vocal + foraging Vocal + foraging
		ACWO TUVI	2 1	0907 1 0917		Lat. 40. 83117 Lon. -121.92407	Vocal Flyover
				0918 1 0928		Lat. 40. 83106 Lon. -121.92352	
		ACWO OATI	2 1	0929 1 0939		Lat. 40. 83081 Lon. -121.92287	Vocal Vocal
		BUSH		0940 1 0950		Lat. 40. 83079 Lon. -121.92235	Vocal,
		BUSH TUVU ACWO		0951 1 1001		Lat. 40. 83058 Lon. -121.92168	Flew across rd. into underbrush ... <sup>Vocal</sup> Foraging Flyover Vocalizing from N-NW

Additional Comments (trash, fence, buffer, contractor issues/notes):

Several vehicles have driven by, fairly active road,

DISTRIBUTION

1. Office
2. Contractor
3. \_\_\_\_\_
4. \_\_\_\_\_

REPORTED

BY:

W. Mitchell

DATE:

7/23/19

REVIEWED

BY:

DATE:





PROJECT NO.: 517031.100 DATE: 7/23/19 DAY: Mon (Tue) Wed Thu Fri Sat Sun

PROJECT: Pit River Tribe - Hardin Road Access Project.

NAME: Warren Mitchell

SURVEY ROUTE: MAP OF AREA ATTACHED: SURVEY TIME: Start: 0700 - Cont. End: 11:50

Table with weather conditions: WEATHER, TEMP (°F), WIND, GROUND, and DESCRIBE HABITAT CONDITIONS: Brushy shrubs (Manz. + Young oaks) w/more open grass / brush mix.

Main data table with columns: Field Point, Ctgy., Species Code, Qty., Time, Photo, Lat., Lon., Comments. Contains multiple rows of bird sighting data with coordinates and descriptions.

DISTRIBUTION and REPORTED BY sections. Includes fields for Office, Contractor, and dates. Reported by: W. Mitchell, Date: 7/23/19.

Project No.: 517031.100

Biological Monitoring

Name: W. Mitchell

Page 4 of 4

Date: 7/23/19

Field Point	Ctgy.	Species Code	Qty.	Time	Photo	Lat. Lon.	Comments: (Behavior, distance & direction, misc. information, weather changes, etc. Nest Info: Status, Cond., H Size, Material, Tree spp. & dbh.)
		ACWO WESS		1119 1 1129		Lat. 40. 83062 Lon. -121. 91566	Vocal. Foraging
		WESS ACWO		1130 1 1140		Lat. 40. 83064 Lon. -121. 91478	Vocal. Vocal. (Lower jcx) of new Rd const w/existing Rd)
		WESS ACWO		1141 1 1151		Lat. 40. 83076 Lon. -121. 91435	Foraging / vocal Flyby to tree... stashing an acorn.
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	
						Lat. 40. Lon. -121.	

Additional Comments (trash, fence, buffer, contractor issues/notes):

DISTRIBUTION	1. Office 2. Contractor 3. _____ 4. _____	REPORTED BY: <u>W. Mitchell</u>	DATE: <u>7/23/19</u>
		REVIEWED BY: _____	DATE: _____

