

March 2023



BIOLOGICAL RESOURCES TECHNICAL REPORT

Pioneer Trail and Bridge Street Extension Project

PREPARED FOR:

Town of Truckee
Scott Mathot, Senior Engineer
Engineering Department
10183 Truckee Airport Rd.
Truckee, CA 96161

Biological Resources Technical Report for the Pioneer Trail and Bridge Street Extension Project

Prepared By:

Ascent Environmental, Inc.

Steve Henderson, Senior Wildlife Biologist

Joshua Boldt, Senior Plant Biologist

(775) 446-0570

steve.henderson@ascentenvironmental.com

joshua.boldt@ascentenvironmental.com

Prepared For:

Town of Truckee

Scott Mathot, Senior Engineer

Engineering Department

10183 Truckee Airport Rd.

Truckee, CA 96161

(530) 582-2481

smathot@townoftruckee.com

Under Contract To:

Lumos & Associates, Inc.

Camille Buehler, PE, PLS, Senior Project Manager

Consultant Team Project Manager

922 Prototype Dr.

Reno, NV 89521

(775) 827-6111

cbuehler@LumosInc.com

March 2023

TABLE OF CONTENTS

Section	Page
1 INTRODUCTION	1
1.1 Project Summary.....	1
1.2 Project Location.....	1
2 METHODOLOGY	1
2.1 Data Sources	1
2.2 Survey Methods.....	5
3 REGULATORY SETTING	5
3.1 Federal.....	5
3.2 State.....	7
3.3 Local.....	9
4 RESULTS	9
4.1 Wildlife Habitats and Vegetation Communities.....	9
4.2 State and Federal Protected Wetlands and Waters.....	13
4.3 Critical Habitat	14
4.4 Sensitive Natural Communities and Habitats.....	15
4.5 Wildlife Corridors	15
4.6 Special-Status Species.....	16
5 CONCLUSIONS AND RECOMMENDATIONS	27
5.1 Special-Status Plant Species	27
5.2 Special-Status Animal Species	28
5.3 Common Raptors and Other Nesting Birds.....	28
5.4 Aquatic Resources	29
5.5 Town of Truckee Tree Ordinance.....	29
6 REFERENCES	29
Appendices	
A Database Search Results	
B Photographs	
Figures	
Figure 1 Project Region.....	2
Figure 2 Project Study Area.....	3
Figure 3 Project Study Area.....	4
Figure 4 Land Cover.....	10
Tables	
Table 1 Aquatic Resources in the Study Area.....	14
Table 2 Special-Status Plant Species Known to Occur in the Vicinity of the Study Area and Potential for Occurrence in the Study Area	17
Table 3 Special-Status Wildlife Species Known to Occur in the Vicinity of the Study Area and Potential for Occurrence in the Study Area	21

ACRONYMS AND ABBREVIATIONS

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CWHR	California Wildlife Habitat Relationship System
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
FRAP	California Department of Forestry and Fire Protection Fire and Resources Assessment Program
GIS	Geographic Information System
IPaC	Information for Planning and Consultation
LCT	Lahontan cutthroat trout
MBTA	Migratory Bird Treaty Act
NPPA	California Native Plant Protection Act
project	Pioneer Trail and Bridge Street Extension Project
RWQCB	Regional Water Quality Control Board
SNYLF	Sierra Nevada yellow-legged frog
Town	Town of Truckee
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WMMM	Western Monarch Milkweed Mapper

1 INTRODUCTION

This report presents the results of a biological resources technical assessment for the Pioneer Trail and Bridge Street Extension Project. The purpose of this constraints-level assessment is to document information on existing biological resources within and in the vicinity of the study area as well as provide information on potential biological and regulatory constraints associated with implementation of the proposed project. This report is also intended to support the preparation of required California Environmental Quality Act (CEQA) environmental review documentation as well as any other regulatory compliance efforts that may be needed to proceed with the proposed project.

1.1 PROJECT SUMMARY

The proposed Pioneer Trail and Bridge Street Extension project would feature approximately 2 miles of two-lane roadway with Class II bicycle lanes between the Tahoe Donner Subdivision, Pioneer Commerce Center via the Pioneer Trail extension, and Downtown Truckee via the Bridge Street extension. The project is located along a similar alignment as an existing Class I (paved) bikeway and recreational trail that could conflict with the design of the proposed roadway in several locations. Those locations may require a trail realignment and structural sections, depending on the roadway alignment selected by the Town of Truckee. The proposed project would also include a vehicular bridge across Trout Creek.

1.2 PROJECT LOCATION

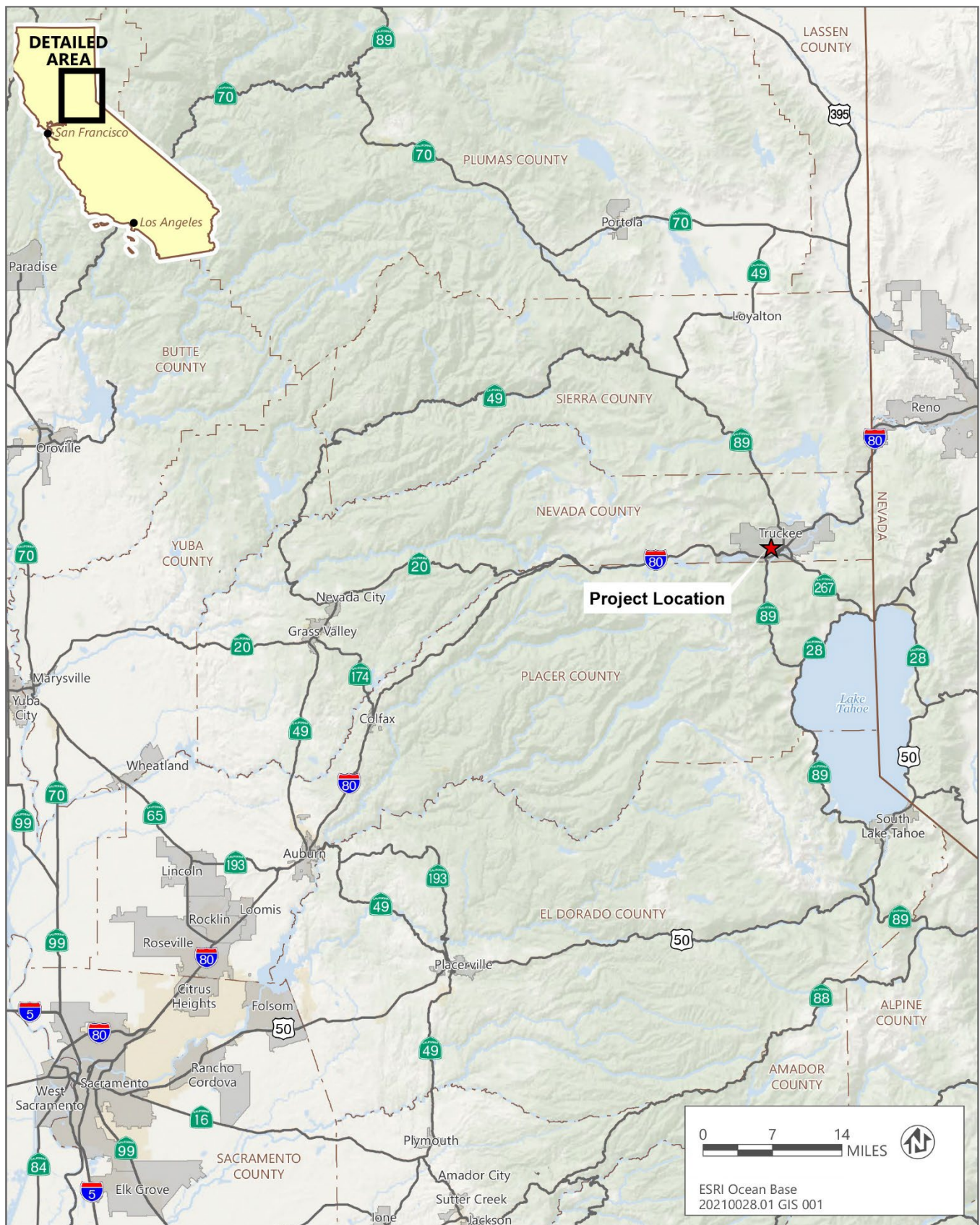
The Pioneer Trail and Bridge Street Extension Project biological resources study area consists of 247.85 acres of land located in the Town of Truckee in Nevada County, CA, and is situated north of historic Downtown Truckee, east of the Tahoe Donner neighborhood, and west of Highway 89 (Figure 1). The study area is located within the Truckee, California U.S. Geological Survey (USGS) 7.5-minute quadrangle, within Sections 9 and 10 Township 17 North, Range 16 East (Figures 2 and 3). The approximate centroid of the study area is 39° 20' 12.5262" North, 120° 11' 44.3466" West.

2 METHODOLOGY

2.1 DATA SOURCES

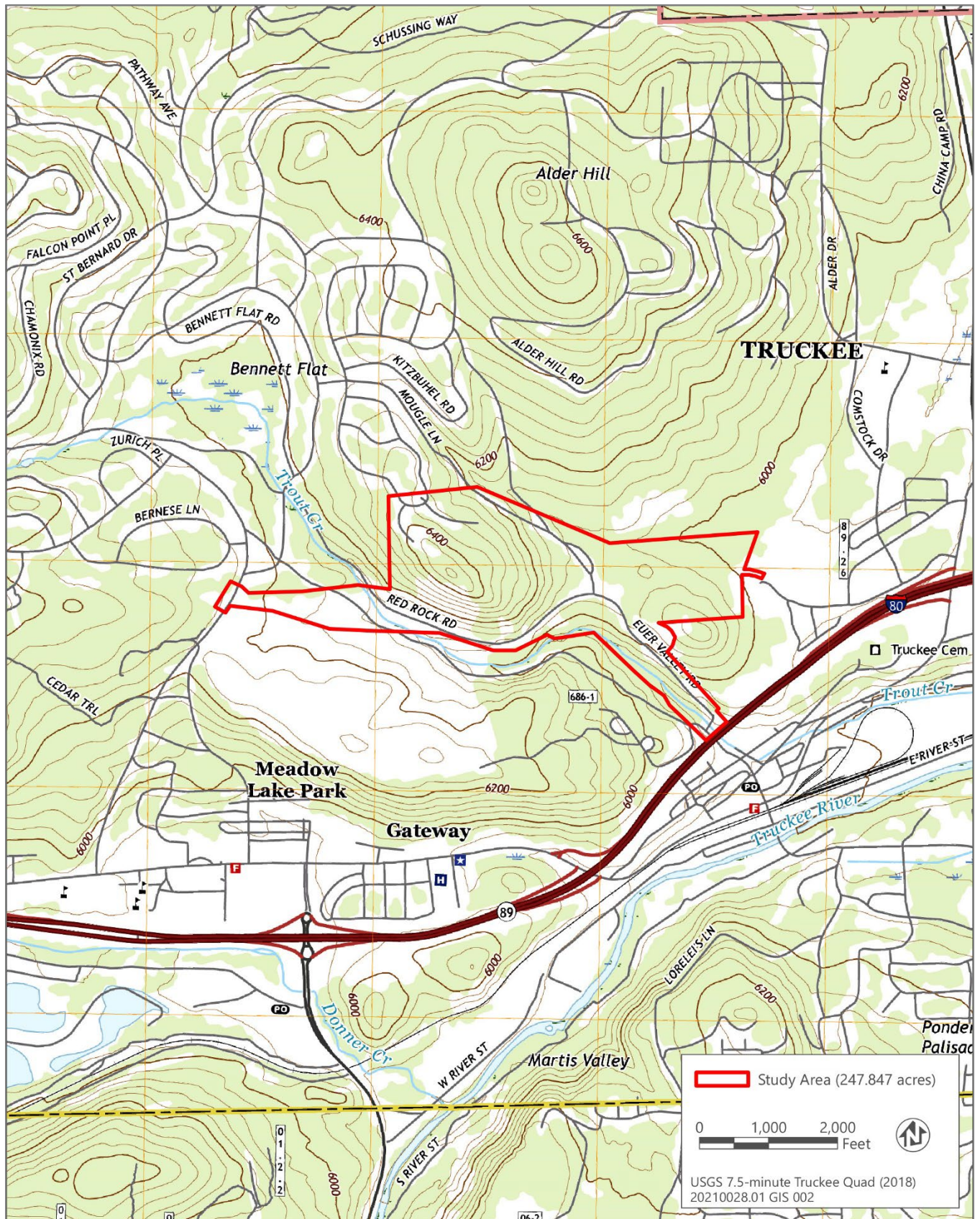
The information and analysis presented in this memorandum is focused on special-status species, wildlife habitats, vegetation communities, and potentially jurisdictional waters of the U.S. and of the state that occur or have the potential to occur within or adjacent to the study area. The results of the assessment are based upon literature review and database queries as well as reconnaissance-level surveys conducted within the study area. The sources of reference data reviewed for this evaluation included the following:

- ▶ Truckee USGS 7.5-minute topographic quadrangle;
- ▶ Google Earth aerial photographs of the study area (Google Earth 2022);
- ▶ U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) System (USFWS 2022a) (see Appendix A);
- ▶ California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDb) list of special-status species occurrences within the Truckee and eight surrounding USGS 7.5-minute topographic quadrangles (Hobart Mills, Boca, Independence Lake, Kings Beach, Martis Peak, Granite Chief, Norden, and Tahoe City) (CDFW 2022a) (see Appendix A);



Sources: Adapted by Ascent in 2021

Figure 1 Project Region



Sources: Adapted by Ascent in 2021

Figure 2 Project Study Area

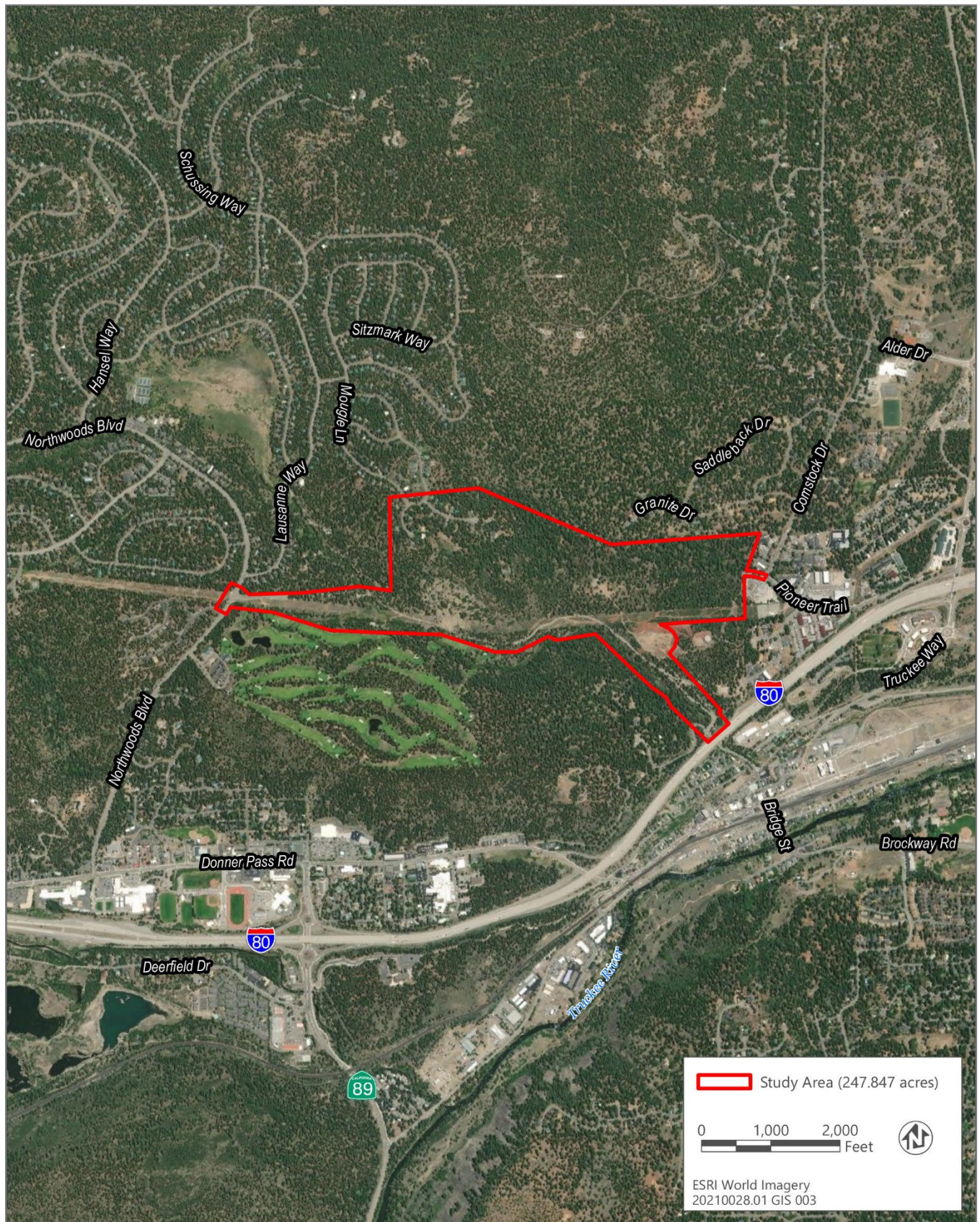


Figure 3 Project Study Area

- ▶ California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants known to occur within the Truckee and eight surrounding USGS 7.5-minute topographic quadrangles (CNPS 2022a) (see Appendix A);
- ▶ USFWS Critical Habitat for Threatened and Endangered Species (online mapping program) (USFWS 2022b);
- ▶ National Wetlands Inventory (USFWS 2022c);
- ▶ Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2022b);
- ▶ Special Animals List (CDFW 2022c); and
- ▶ California Department of Forestry and Fire Protection Fire and Resources Assessment Program (FRAP) land cover data.

In addition to these primary data sources, Ascent biologists reviewed the Plant and Wildlife Baseline Report, Tahoe Donner to Downtown Recreation Trail (JBR 2011) and the Town of Truckee Tahoe Donner to Downtown Recreational Trail Wetland Delineation (JBR 2012). The study area surveyed and evaluated previously by JBR (2011, 2012) includes the study area for the current project. Therefore, this Biological Resources Technical Report incorporates, updates, and supplements relevant information provided in the 2011 and 2012 reports.

2.2 SURVEY METHODS

Before conducting the field surveys, available information regarding biological resources in the vicinity of the study area was gathered and reviewed, including information on special-status plant and wildlife species with the potential to occur in the vicinity of the study area. Queries of the CNDDDB, CNPS, and USFWS IPaC databases were conducted before the surveys. Lists of special-status plant and wildlife species with the potential to occur in the study area were developed based on the review of existing information, as identified above. These lists were used to focus the area of investigation on the special-status species and associated habitats with the potential to be present within the study area.

Biological resources within the study area were identified through a field reconnaissance, habitat assessment surveys, and an aquatic resources delineation conducted on September 23 and 30, and November 4 and 13, 2021. Ascent Environmental biologists Steve Henderson, Joshua Boldt, and Pam Brillante conducted the surveys. The surveys were conducted by walking the study area on foot, and recording existing habitat types, plants, and wildlife species within and adjacent to these areas. Plant communities and wildlife habitats were identified using aerial photo interpretation and field reconnaissance. Before the field survey, special-status species characteristics and habitat requirements were reviewed to aid in field recognition of suitable habitats. During the survey, habitats were evaluated for their potential to support special-status species and the presence of any other biologically sensitive resources such as wetlands, riparian habitat, or drainages. A formal aquatic resources delineation was also conducted (see the *Aquatic Resources Delineation Report for the Pioneer Trail and Bridge Street Extension Project* [Ascent Environmental 2022]). No focused or protocol-level surveys for special-status species were conducted.

3 REGULATORY SETTING

Biological resources in California are protected and/or regulated by a variety of federal and state laws and policies. Key regulatory issues that may be applicable to the project are discussed below.

3.1 FEDERAL

3.1.1 Clean Water Act

Section 404 of the Clean Water Act (CWA) requires a project applicant to obtain a permit before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Fill material is material placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land or changing the bottom elevation of any portion of a water of the United

States. Waters of the United States include navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; relatively permanent tributaries to any of these waters, and wetlands adjacent to these waters. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Potentially jurisdictional wetlands must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Wetlands that meet the delineation criteria may be jurisdictional under Section 404 of CWA pending U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) review.

Pursuant to Section 401 of CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain a water quality certification from the Regional Water Quality Control Board (RWQCB) indicating that the project would uphold state water quality standards.

3.1.2 Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA), USFWS has authority over projects that may affect the continued existence of federally listed (threatened or endangered) species. Section 9 of the ESA prohibits any person from "taking" an endangered or threatened fish or wildlife species or removing, damaging, or destroying a listed plant species on federal land or where the taking of the plant is prohibited by state law. Take is defined under the ESA, in part, as killing, harming, or harassing. Under federal regulations, take is further defined to include habitat modification or degradation where it results in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

Section 10 of the ESA applies if a non-federal agency is the lead agency for an action that results in incidental take and no other federal agencies are involved in permitting the action. Section 7 applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency is required to consult with USFWS to determine if the action may affect federally listed species.

3.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 makes it unlawful to take or attempt to take any migratory bird, any part, nest, or egg of any such bird except under the terms of a permit issued by the U.S. Department of the Interior. In total, 1,093 bird species are protected by the MBTA. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle.

3.1.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald and golden eagles, including their parts, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

3.2 STATE

3.2.1 California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from CDFW is required for projects that could result in "take" of a species state listed as threatened or endangered. Section 2080 of the CESA prohibits take of state listed species. Under the CESA, take is defined as any activity that would directly or indirectly kill an individual of a species. The definition does not include "harm" or "harass" as in the federal act. As a result, the threshold for take under the CESA is higher than under the ESA (i.e., habitat modification is not necessarily considered take under the CESA). The take of state-listed species incidental to otherwise lawful activities requires a permit, pursuant to Section 2081(b) of the CESA. The state has the authority to issue an incidental take permit under Section 2081 of the California Fish and Game Code or to coordinate with USFWS during the federal process, so the federal permit also would cover state-listed species.

3.2.2 California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed CDFW to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. CESA expanded on the original NPPA and enhanced legal protection for plants. CESA established threatened and endangered species categories and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, three listing categories for plants are employed in California: rare, threatened, and endangered.

3.2.3 Porter-Cologne Water Quality Control Act

Each of the nine RWQCBs in California must prepare and periodically update water quality control plans (basin plans) pursuant to the Porter-Cologne Water Quality Control Act. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Under the Porter-Cologne Act, features containing surface water are often classified as waters of the state. Projects that affect waters of the state must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification under Section 401 of the CWA.

3.2.4 California Fish and Game Code

LAKE AND STREAMBED PROTECTION

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do the following without first notifying CDFW:

- ▶ substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake; or
- ▶ deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation (California Code of Regulations Title 14, Section 1.72). CDFW regulatory authority within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

FULLY PROTECTED SPECIES

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take. CDFW has informed nonfederal agencies and private parties that their actions must avoid take of any fully protected species.

PROTECTION OF BIRDS AND THEIR NESTS

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs.

3.2.5 California Rare Plant Ranking System

CDFW works in collaboration with the CNPS to maintain a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. These species are categorized by rarity in the California Rare Plant Rank (CRPR) system. This information is published in the Inventory of Rare and Endangered Vascular Plants of California (CNPS 2022a). Potential impacts to populations of CRPR species may receive consideration under CEQA review. The following identifies the definitions of the CRPR:

Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere.

Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.

Rank 2A: Plants presumed extirpated in California, but more common elsewhere.

Rank 2B: Plants Rare, Threatened, or Endangered in California, but more common elsewhere.

Rank 3: Plants about which more information is needed - A Review List.

Rank 4: Plants of limited distribution - A Watch List.

3.2.6 California Environmental Quality Act

CEQA applies to projects proposed to be undertaken or requiring approval by state and local governmental agencies. "Projects" are public agency actions with potential to have an impact on the physical environment. Once an activity is determined to be a "project" under CEQA, the lead agency must decide whether it is categorically or statutorily exempt. If it is not exempt, the lead agency must assess the potential for significant environmental effects to occur as a result of the project. For this analysis, thresholds of significance related to biological resources, as described below, are used to determine if a significant impact may occur. The significance criteria are based on applicable parts of Appendix G of the State CEQA Guidelines.

The project would have a significant impact on biological resources if it would:

- ▶ Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- ▶ Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
- ▶ Have a substantial adverse effect on federally-protected wetlands, as defined by Section 404 of CWA, through direct removal, filling, hydrological interruption, or other means;

- ▶ Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- ▶ Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or,
- ▶ Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State conservation plan.

3.3 LOCAL

3.3.1 Town of Truckee Tree Preservation

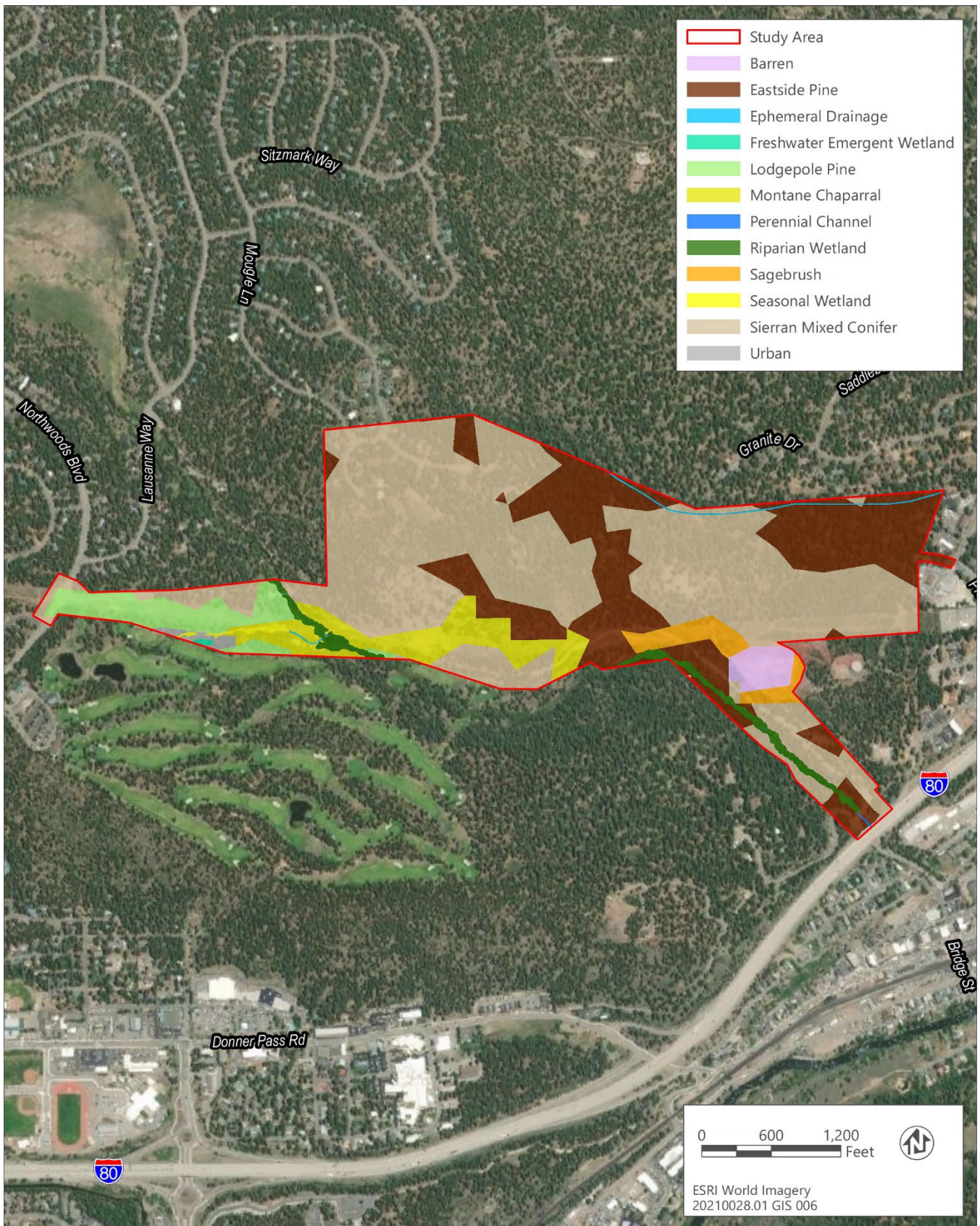
The Town of Truckee 2025 General Plan recognizes the importance of trees to the character and beauty of Truckee, as well as the role that trees have in advancing the public health, safety and welfare of its residents. Section 18.30.155 of the Town of Truckee Development Code regulates the removal of trees. The tree preservation standards of the code are intended to assist property owners and project designers in understanding the Town's goals for attaining high quality development that is sensitive to tree preservation. The standards will be used during the review of land use permit applications and for existing developed non-residential parcels where previously unpermitted tree removal is proposed. In particular, the Code requires a tree removal permit be obtained for tree removals unless one of several exemption criteria is met.

4 RESULTS

Regionally, the study area is located within the northern High Sierra Nevada subregion of the California Floristic Province (Baldwin et al. 2012). Regional natural plant communities within and surrounding the study area include those that are common to the Sierra Nevada such as coniferous forests, sagebrush and bitterbrush scrub, montane chaparral, montane riparian, perennial grassland, and meadow. Elevations range from a high of nearly 6,490 feet above mean sea level on a small peak in the middle portion of the study area to a low of approximately 5,883 feet above mean sea level where Trout Creek leaves the study area at Bridge Street. The study area is characterized by moderate to steep topography with Trout Creek flowing west to east through the southern portion of the study area. The predominant land use within the study area is open space, with some residential uses in the north and a recreational trail paralleling Trout Creek. Surrounding land uses include residential development to the north and west, commercial uses to the east and south, and the Coyote Moon Golf Course to the south.

4.1 WILDLIFE HABITATS AND VEGETATION COMMUNITIES

Wildlife habitats are generally described in terms of vegetation types along with landform, disturbance regime, and other unique environmental characteristics. Vegetation communities are assemblages of plant species that occur together in the same area, are repeated across landscapes, and are defined by species composition and relative abundance. The wildlife habitat types described in this document were classified using CDFW's A Guide to Wildlife Habitats of California, a habitat classification scheme that was developed to support CDFW's California Wildlife Habitat Relationship (CWHR) System (Mayer and Laudenslayer 1988). The CWHR System is a wildlife information system and predictive model for California's regularly occurring wildlife species. Figure 4 shows the distribution and extent of habitat types in the study area as documented by FRAP using the CWHR classification system. Figure 4 also shows the location and extent of the potentially jurisdictional aquatic resources within the study area based on the aquatic resources delineation. In general, the habitats mapped by FRAP were confirmed in the field to be mostly Jeffrey pine and Sierran mixed conifer forest.



Sources: Data downloaded from Calfire in 2019; adapted by Ascent in 2022

Figure 4 Land Cover

Vegetation communities within the study area were identified using field reconnaissance and aerial photography. Within CDFW's current vegetation classification system, vegetation alliances are the scientifically derived hierarchical class that corresponds best with vegetation communities and are designed to be the unit for conservation of rare or threatened plant communities (Sawyer et al. 2009). Vegetation in the study area was identified to the association level following the classification system described in *A Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009) and updated in the current online edition (CNPS 2022b). Vegetation alliances typically represent a much finer scale of vegetation description than wildlife habitats but correspond approximately with one or several wildlife habitat types. CDFW provides crosswalks to help correlate vegetation alliances with wildlife habitats and the descriptions below make use of the crosswalk. A description of each wildlife habitat type is presented below. Related vegetation alliances (and their state rarity ranking) are listed following the wildlife habitat description and are based on the alliance descriptions presented by Sawyer et al. (2009). Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities and should be addressed in the CEQA environmental review processes. Plant taxonomy follows *The Jepson Manual: Vascular Plants of California (Second Edition)* nomenclature (Baldwin et al. 2012) as revised by the Jepson eFlora (Jepson Flora Project 2022). Common names of plant species are derived from the U.S. Department of Agriculture (USDA) Plants Database (2022).

4.1.1 Sierran Mixed Conifer/Jeffrey Pine Forest/Eastside Pine Forest

Sierran mixed conifer forest, Jeffrey pine forest, and Eastside pine forest occurs throughout the study area outside of the riparian corridor associated with Trout Creek. Jeffrey pine (*Pinus jeffreyi*) and white fir (*Abies concolor*) are the dominant species found in varying densities in the upper canopy layer of these habitat types. Lodgepole pine (*Pinus contorta* ssp. *murrayana*), sugar pine (*Pinus lambertiana*), and incense cedar (*Calocedrus decurrens*) are occasional tree associates found in the upper canopy. In open areas, the understory consists of a variety of shrubs, grasses, and forbs, including Woods' rose (*Rosa woodsii*), big sagebrush (*Artemisia tridentata*), antelope bitterbrush (*Purshia tridentata*), rubber rabbitbrush (*Ericameria nauseosa*), green-leaf manzanita (*Arctostaphylos patula*), and sulfur-flowered buckwheat (*Eriogonum umbellatum* var. *nevadense*).

VEGETATION ALLIANCES

- ▶ *Abies concolor* (88.500.00) White fir forest (S4)
- ▶ *Pinus jeffreyi* (87.020.00) Jeffrey pine forest (S4)

4.1.2 Lodgepole Pine Forest

Lodgepole pine forest occurs on moist sites that are transitional between upland forest communities and riparian habitats. This plant community is characterized by open to dense canopies of lodgepole pine of similarly sized specimens in association with few other species and with a sparse understory. Many lodgepole stands are associated with meadow edges and streams, where the understory typically consists of willows and herbaceous species characteristic of wet montane meadows, such as grasses, forbs, and sedges.

VEGETATION ALLIANCES

- ▶ *Pinus contorta* (87.080.00) Lodgepole pine forest (S4)

4.1.3 Montane Chaparral/Sagebrush

The growth form of montane chaparral species can vary from treelike to prostrate. When mature, montane chaparral is often impenetrable to large mammals. Understory vegetation in the mature chaparral is largely absent. Conifer

trees may occur in sparse stands or as scattered individuals within the chaparral type. On shallow granitic soils in the study area, low dense growths of greenleaf manzanita, pinemat manzanita (*Arctostaphylos nevadensis*), tobacco brush (*Ceanothus velutinus*), and huckleberry oak (*Quercus vacciniifolia*) characterize an edaphic climax community, associated with scattered conifers and exposed granite. A number of perennial bunchgrasses such as Idaho bentgrass (*Agrostis idahoensis*), slender wheatgrass (*Elymus trachycaulus*), blue wild rye (*Elymus glaucus*), California brome (*Bromus carinatus*), beardless wild rye (*Elymus triticoides*), squirreltail grass (*Elymus elymoides*), and spike trisetum (*Trisetum spicatum*) were noted in the montane chaparral/sagebrush habitat type. Dry tolerant sedges (i.e., threadleaf sedge [*Carex filifolia*]) and rushes as well as a variety of forbs are less common associates of these grasses.

VEGETATION ALLIANCES

- ▶ *Arctostaphylos patula* – *Arctostaphylos nevadensis* (37.303.00) Green leaf manzanita – pinemat manzanita chaparral (S4)
- ▶ *Ceanothus velutinus* (37.210.00) Tobacco brush chaparral (S4)
- ▶ *Quercus vacciniifolia* (37.414.00) Huckleberry oak chaparral (S4)

4.1.4 Freshwater Emergent Wetland

Freshwater emergent wetlands are characterized by emergent herbaceous plants growing in areas with intermittently flooded or permanently saturated soils. In the study area, this community is represented by a single feature characterized by open water and a dense vegetative cover dominated by broadleaf cattail (*Typha latifolia*). Smaller emergent monocots growing around the inundated or saturated margins include pale spikerush (*Eleocharis macrostachya*) and common rush (*Juncus effusus*). Smaller aquatic species noted in this feature include duckweed (*Lemna* sp.) and watercress (*Nasturtium officinale*). This wetland is located in a constructed depression and appears to be supported by runoff from the adjacent Coyote Moon Golf Course.

VEGETATION ALLIANCES

- ▶ *Typha latifolia* (52.050.00) Cattail marsh (S5)

4.1.5 Seasonal Wetland

Seasonal wetlands are freshwater wetlands that support ponded or saturated soil conditions during winter and spring and are mostly dry through the summer and fall. Vegetation is characterized by both annual and perennial species including native and non-native grasses and forbs. Plant species found within seasonal wetlands are adapted to withstand short periods of inundation. Seasonal wetland plants typically initiate growth as aquatic or semi-aquatic plants and transition to a dry-land environment as the wetland dries. Seasonal wetlands are colonized by low-growing, hardy perennials that tolerate disturbance and annuals that tolerate seasonal soil saturation. Upland grasses and forbs often establish after wetland species desiccate and features become dry. Within the study area, seasonal wetlands occur along a drainage swale that feeds into Trout Creek. This drainage swale is in part sustained from runoff from the Coyote Moon Golf Course directly adjacent to the southern border of the study area. Associated wetland plant species identified within these features include Nebraska sedge (*Carex nebrascensis*), Sierra rush (*Juncus nevadensis*), wire rush (*Juncus balticus*), fringed willowherb (*Epilobium ciliatum*), and neckweed (*Veronica peregrina*).

VEGETATION ALLIANCES

- ▶ *Juncus nevadensis* (45.561.00) Sierra rush marsh (S3)

4.1.6 Montane Riparian Scrub

In the study area, montane riparian scrub occurs as a narrow, dense grove of broad-leaved, winter deciduous trees and shrubs as well as occasional evergreen trees with a grassy understory along the banks and adjacent floodplain of Trout Creek. This community supports several willow species, but no single willow species is dominant. In the study area, the montane riparian scrub community is characterized by Lemmon's willow (*Salix lemmonii*), Sierran willow (*Salix eastwoodiae*), and Scouler's willow (*Salix scouleriana*). Overstory tree species include quaking aspen (*Populus tremuloides*), black cottonwood (*Populus trichocarpa*), and thinleaf alder (*Alnus incana* ssp. *tenuifolia*). The understory on the banks of Trout Creek supports Woods' rose, whitestem gooseberry (*Ribes inerme* var. *inerme*), Sierra rush, wire rush, slenderbeak sedge (*Carex athrostachya*), meadow barley (*Hordeum brachyantherum*), and fringed willowherb. This habitat forms a transition zone between Trout Creek and adjacent coniferous forests.

VEGETATION ALLIANCES

- ▶ *Alnus incana* (63.210.00) Mountain alder thicket (S3)
- ▶ *Populus tremuloides* (61.111.00) Aspen groves (S3)
- ▶ *Salix lemmonii* (61.113.00) Lemmon's willow thicket (S3)

4.1.7 Riverine

Riverine habitats are distinguished by intermittent or continually running water and occur in association with a variety of terrestrial habitats. Trout Creek, a perennially flowing channel, is the dominant riverine habitat feature within the study area. Trout Creek flows generally from northwest to southeast through the study area. It originates within the Tahoe Donner Golf Course, east of Donner Ridge and north of Donner Lake, and drains approximately 5.1 square miles. It flows from northwest to southeast through the study area, eventually flowing southeast under I-80, then through downtown Truckee to its confluence with the Truckee River. In addition to Trout Creek, two ephemeral channels are found within the study area boundaries. One flows along the northern boundary of the study area. This unnamed channel eventually flows east then north to Prosser Lake Reservoir, which eventually drains to the Truckee River through Prosser Creek. The second ephemeral channel drains a wetland complex found along the southwestern boundary of the study area and flows to the east until its confluence with Trout Creek.

4.1.8 Urban/Barren

Developed areas in the study area include paved and unpaved roadways, parking lots, trails, residential development, and infrastructure. Developed areas are paved or otherwise developed or disturbed and generally lack natural vegetation. Vegetation associated with developed areas consists of ornamental shrubs and trees. Barren areas in the study area are devoid of vegetation and include a maintenance/storage yard for the Town of Truckee.

4.2 STATE AND FEDERAL PROTECTED WETLANDS AND WATERS

A formal delineation of aquatic resources was performed in the study area during the September 30, 2021 survey. The aquatic resources delineation identified 5.411 acres of potentially jurisdictional aquatic resources within the study area that are expected to be subject to regulation under Section 404 of the CWA and/or state of California regulations. Aquatic community and habitat were classified using the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC 2013). Details of the potentially jurisdictional aquatic resources within the study area are presented in Table 1 and described below. Figure 4 shows the location and extent of the potentially jurisdictional features within the study area.

Table 1 Aquatic Resources in the Study area

Aquatic Resource Name	Aquatic Resources Classification		Aquatic Resource Size (acre)	Aquatic Resource Size (linear feet)
	FGDC (Cowardin) Code ¹	Location (lat/long)		
Other Waters of the United States				
Riverine Upper Perennial Rock Bottom – Trout Creek			0.422	4,136.90
Trout Creek (a)	R3RB	39.33626/--120.20399	0.159	1,265.11
Trout Creek (b)	R3RB	39.33388/--120.19000	0.263	2,871.79
Riverine Ephemeral - Ephemeral Drainage (ED)			0.230	3,343.89
ED1	R6	39.33573/-120.20403	0.023	337.49
ED2	R6	39.33900/-120.19360	0.207	3,006.40
Total Other Waters			0.652	7,480.79
Wetlands				
Palustrine Emergent Persistent – Freshwater Emergent Wetland (FEW)			0.131	—
FEW1	PEM1	39.33557/-120.20685	0.131	—
Palustrine Scrub-Shrub – Riparian Wetland (RW)			4.160	—
RW1	PSS	39.33682/-120.20452	0.083	—
RW2	PSS	39.33683/-120.20442	0.056	—
RW3	PSS	39.33626/-120.20407	0.333	—
RW4	PSS	39.33649/-120.20411	0.243	—
RW5	PSS	39.33545/-120.20284	0.559	—
RW6	PSS	39.33549/-120.20247	0.321	—
RW7	PSS	39.33276/-120.18931	1.050	—
RW8	PSS	39.33360/-120.19024	1.514	—
Palustrine Emergent Nonpersistent - Seasonal Wetland (SW)			0.468	—
SW1	PEM2	39.33576/-120.20732	0.057	—
SW2	PEM2	39.33584/-120.20517	0.411	—
Total Wetlands			4.759	—
Total Wetlands and Other Waters			5.411	—

¹ Federal Geographic Data Committee 2013.

4.3 CRITICAL HABITAT

Critical habitats are areas considered essential for the conservation of a species listed as endangered or threatened under the federal Endangered Species Act. Critical habitats are specific geographic areas that contain features essential for conservation of listed species and may require special management and protection. Critical habitat may include an area not currently used by an endangered or threatened species, but that will be needed for species recovery. A review of GIS-based habitat data for *USFWS Critical Habitat for Threatened and Endangered Species* (USFWS 2022b) shows that the study area is not located within designated critical habitat for any listed species.

4.4 SENSITIVE NATURAL COMMUNITIES AND HABITATS

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through Section 404 of the CWA, the California Fish and Game Code, and other applicable regulations. Sensitive natural habitats may be of special concern to these agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Sensitive natural communities are those native plant communities defined by CDFW as having limited distribution statewide or within a county or region and that are often vulnerable to environmental effects of projects (CDFW 2022d). These communities may or may not contain special-status plants or their habitat. CDFW designates sensitive natural communities based on their state rarity and threat ranking using NatureServe's Heritage Methodology. Natural communities with rarity ranks of S1 to S3, where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable, are considered sensitive natural communities to be addressed in the environmental review processes of CEQA and its equivalents (CDFW 2022d). Many riparian plant communities qualify as sensitive natural communities based on the plant associations therein. In addition, riparian habitats are protected under Section 1602 of California Fish and Game Code.

Sensitive natural communities are generally identified at the alliance level of vegetation classification hierarchy using the Manual of California Vegetation (Sawyer et al. 2009). Known occurrences of sensitive natural communities are included in the CNDDDB; however, no new occurrences have been added to the CNDDDB since the mid-1990s when funding was cut for this portion of the CNDDDB program. One sensitive natural community was identified in the CNDDDB database within the nine USGS 7.5-minute quadrangles surrounding the study area: fen (CDFW 2022a). The study area does not contain fen habitat.

The following vegetation alliances were identified within the study area:

- ▶ *Juncus nevadensis* (45.561.00) Sierra rush marsh (S3)
- ▶ *Alnus incana* (63.210.00) Mountain alder thicket (S3)
- ▶ *Populus tremuloides* (61.111.00) Aspen groves (S3)
- ▶ *Salix lemmonii* (61.113.00) Lemmon's willow thicket (S3)

These vegetation alliances have a state rarity ranking of S3 and are therefore considered a sensitive natural community under CEQA.

4.5 WILDLIFE CORRIDORS

Wildlife movement corridors are considered an important ecological resource by various agencies (CDFW and USFWS) and under CEQA. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range. Topography and other natural factors, in combination with urbanization, can fragment or separate large open-space areas. Areas of human disturbance or urban development can fragment wildlife habitats and impede wildlife movement between areas of suitable habitat. This fragmentation creates isolated "islands" of vegetation that may not provide sufficient area to support sustainable populations and can adversely affect genetic and species diversity. Movement corridors can mitigate the effects of this fragmentation by allowing animals to move between remaining habitats and promoting genetic exchange between separate populations.

Trout Creek and its associated riparian and wetland habitats provide a potential corridor for movement within and across the study area for some aquatic and terrestrial species. However, the actual functions and values of the Trout Creek corridor for wildlife movement within and across the study area depend on several local and regional variables, including specific habitat requirements of species potentially using the corridor and habitat quality within the corridor, corridor size and dimensions, the types and magnitude of edge effects (from adjacent land cover and uses), and presence of movement barriers. For example, in the study area, the Trout Creek corridor and adjacent uplands

are surrounded by golf course operations, residential and commercial developments, well-used recreation trails, major roads and road crossings, and powerline corridors; these disturbance factors limit the overall quality and functions of the Trout Creek corridor for wildlife movement.

At a regional scale, the study area is located in an area of “limited connectivity opportunity” according to the CDFW’s Essential Habitat Connectivity natural landscape blocks (CDFW 2022e). This category includes areas where land use may limit options for providing connectivity or no connectivity importance has been identified. Mule deer (*Odocoileus hemionus*) occur in the study area, and a migration route for the Sierra Valley herd is located approximately 2 miles west of the study area, oriented in a north-south direction on the west side of the Tahoe-Donner neighborhood and along Tahoe-Donner Ski Area. However, the study area is not located within any known significant deer migration route or other priority wildlife corridors.

4.6 SPECIAL-STATUS SPECIES

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties in one or more of the following categories, regardless of their legal or protection status:

- ▶ officially listed by the federal government under the Endangered Species Act as endangered or threatened;
- ▶ officially listed by the State of California under the California Endangered Species Act as endangered, threatened, or rare;
- ▶ a candidate for state or federal listing;
- ▶ taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations Section 15380 of the State CEQA Guidelines;
- ▶ species identified by CDFW as species of special concern;
- ▶ species listed as fully protected under the California Fish and Game Code; and
- ▶ taxa considered by CDFW to be “rare, threatened, or endangered in California” and assigned a CRPR. The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern, summarized as follows:
 - CRPR 1A - Plants presumed to be extinct in California;
 - CRPR 1B - Plants that are rare, threatened, or endangered in California and elsewhere;
 - CRPR 2 - Plants that are rare, threatened, or endangered in California but more common elsewhere;
 - CRPR 3 - Plants about which more information is needed (a review list); and
 - CRPR 4 - Plants of limited distribution (a watch list).

Typically, CRPR 3 and CRPR 4 species do not qualify as special-status species, as they may be locally abundant or otherwise not sufficiently rare to warrant protection.

The term “California species of special concern” is applied by CDFW to animals not listed under ESA or CESA, but that are considered to be declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW’s fully protected status was California’s first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Preliminary lists of special-status plant and animal species known or with potential to occur in the study area were developed based on a review of the sources listed in Section 2, "Methods." The data review preliminarily identified 33 special-status plant and 22 special-status animal species that could occur in or near the study area. Tables 2 and 3 summarizes the regulatory status, habitat associations, and potential for occurrence in the study area for each special-status species evaluated during this analysis. Of the 33 special-status plant species, none are known to occur in the study area, 17 have a moderate likelihood to occur, and 16 have a low (or no) potential and are not expected to occur (Table 2). Of the 22 special-status animal species, one is known to occur, eight have a moderate or high likelihood to occur, and the remainder have a low potential and are not expected to occur (Table 3). These determinations were based on the types, extent, and quality of habitats in the study area determined during the reconnaissance-level field surveys; the proximity of the study area to known occurrences of the species; and the regional distribution and abundance of the species.

Table 2 Special-Status Plant Species Known to Occur in the Vicinity of the Study area and Potential for Occurrence in the Study area

Species	Listing Status ¹ Federal	Listing Status ¹ State	CRPR ¹	Habitat	Potential for Occurrence ²
Mountain bent grass <i>Agrostis humilis</i>	–	–	2B.3	High elevation grass growing in subalpine to alpine meadows and alpine scree fields. Sometimes on carbonate substrates. 8,760–10,500 feet in elevation. Blooms July–September.	<i>None.</i> Suitable subalpine and alpine habitats are not present in or adjacent to the study area. The study area is below the known elevation range for this species.
Galena Creek rockcress <i>Arabis rigidissima</i> var. <i>demota</i> (Synonym: <i>Boecheera rigidissima</i>)	–	–	1B.2	Open, rocky areas along forest edges of conifer and/or aspen stands; usually found on north aspects. Well-drained, stony soil underlain by basic volcanic rock. 5,900–10,020 feet in elevation. Blooms July–August.	<i>Moderate.</i> Suitable habitat is present in the study area. Edges of coniferous forests and aspen stands are potentially suitable habitat for this species.
Threetip sagebrush <i>Artemisia tripartita</i> ssp. <i>Tripartite</i>	–	–	2B.3	Openings in the forest. Rocky, volcanic soils. 6,770–8,000 feet in elevation. Blooms August.	<i>Moderate.</i> Suitable habitat is present in the study area. Openings in coniferous forests are potentially suitable habitat for this species.
Austin's astragalus <i>Astragalus austiniæ</i>	–	–	1B.3	Alpine boulder and rock field, Subalpine coniferous forest. 8,000–9,730 feet in elevation. Blooms July–September.	<i>None.</i> Suitable subalpine and alpine habitats are not present in or adjacent to the study area. The study area is below the known elevation range for this species.
Upswept moonwort <i>Botrychium ascendens</i>	–	–	2B.3	Primarily in open habitats. In California and Nevada, mountain meadows, shrublands, and near seeps, fens, and streams. ≥5,000 feet in elevation. Blooms July–August.	<i>Moderate.</i> Suitable habitat is present in the study area. Freshwater emergent and riparian wetland habitat in the study area is potentially suitable for this species.
Scalloped moonwort <i>Botrychium crenulatum</i>	–	–	2B.2	One of the most hydrophilic of <i>Botrychiums</i> ; grows in saturated soils or seeps along the stabilized margins of small streams, often among dense herbaceous vegetation. Also, in seasonally wet roadside ditches and drainageways. In these habitats it is usually found in partly shaded to heavily shaded sites at mid to high elevations. 2,000–10,760 feet in elevation. Blooms June–September.	<i>Moderate.</i> Suitable habitat is present in the study area. Freshwater emergent and riparian wetland habitat in the study area is potentially suitable for this species.

Species	Listing Status ¹ Federal	Listing Status ¹ State	CRPR ¹	Habitat	Potential for Occurrence ²
Common moonwort <i>Botrychium lunaria</i>	–	–	2B.3	Varied habitat associations. At high latitudes and elevations, it is associated with open to lightly wooded meadows as well as sparsely vegetated scree slopes. At lower elevations and latitudes, it occurs in deep woods as well as meadows and sparsely vegetated sand dunes. It most commonly occurs on moist but well-drained soils with a neutral pH. 7,500–11,200 feet in elevation. Blooms August.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area. The study area is below the known elevation range for this species.
Mingan moonwort <i>Botrychium minganense</i>	–	–	2B.2	Habitat varies widely from dense forest to open meadow and from summer-dry meadows to permanently saturated fens and seeps. In meadows, plants may be in open sun or under dense herbaceous cover. Often associated with old (i.e., greater than 10 years) disturbances such as logging roads and road shoulders. May be less closely associated with calcareous soils than most moonworts. 4,800–6,800 feet in elevation. Blooms July–September.	<i>Moderate</i> . Suitable habitat is present in the study area. Montane forest, wetland, and riparian habitat is potentially suitable for this species.
Davy's sedge <i>Carex davyi</i>	–	–	1B.3	Dry, often sparse meadows within subalpine and upper montane coniferous forest. 4,790–10,600 feet in elevation. Blooms May–August.	<i>Low</i> . Dry meadow habitat is not present in the study area. Species could potentially occur in grassy openings in chaparral and forest habitats.
Woolly-fruited sedge <i>Carex lasiocarpa</i>	–	–	2B.3	Sphagnum bogs, freshwater marsh, lake margins. 1,970–6,900 feet in elevation. Blooms June–July.	<i>Moderate</i> . Suitable habitat is present in the study area. Freshwater emergent and riparian wetland habitat in the study area is potentially suitable for this species.
Mud sedge <i>Carex limosa</i>	–	–	2B.2	Grows in upper and lower montane coniferous forest, fens, seeps, soggy meadows, floating bogs, and edges of lakes. 4,500–9,200 feet in elevation. Blooms June–August.	<i>Moderate</i> . Suitable habitat is present in the study area. Freshwater emergent and riparian wetland habitat in the study area is potentially suitable for this species.
Fell fields Claytonia <i>Claytonia megarhiza</i>	–	–	2B.3	Subalpine, alpine gravel, talus, and crevices in alpine boulder and rock field (granitic); 8,530 to 11,590 feet in elevation. Blooms July to September.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area. The study area is below the known elevation range for this species.
English sundew <i>Drosera anglica</i>	–	–	2B.3	Open bogs, fens, swamps, and peatlands, often with <i>Sphagnum</i> moss. 4,265 to 7,400 feet in elevation. Blooms June to September.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area.
Starved daisy <i>Erigeron miser</i>	–	–	1B.3	Rocky sites in upper montane coniferous forest. 6,035 to 8,595 feet in elevation. Blooms June to October.	<i>Moderate</i> . Suitable habitat is present in the study area. Montane coniferous forest is potentially suitable for this species.
Donner Pass buckwheat <i>Eriogonum umbellatum</i> var. <i>torreyanum</i>	–	–	1B.2	Dry gravelly or stony sites in meadows, seeps, and upper montane coniferous forests; often on harsh exposures (e.g. ridge tops, steep slopes). 6,900–8,600 feet in elevation. Blooms July–September.	<i>None</i> . Suitable microhabitat is not present in or adjacent to the study area. The study area is below the known elevation range for this species.
Subalpine aster <i>Eurybia merita</i>	–	–	2B.3	Upper montane coniferous forest. 4,265–6,560 feet in elevation.	<i>Moderate</i> . Suitable habitat is present in the study area. Montane coniferous forest is potentially suitable for this species.

Species	Listing Status ¹ Federal	Listing Status ¹ State	CRPR ¹	Habitat	Potential for Occurrence ²
American manna grass <i>Glyceria grandis</i>	–	–	2B.3	Wet meadows, ditches, streams, and ponds, in valleys and lower elevations in the mountains. 50–6,710 feet in elevation. Blooms June–August.	<i>Moderate</i> . Suitable habitat is present in the study area. Wetland and stream habitat associated with Trout Creek potentially suitable for this species.
Plumas ivesia <i>Ivesia sericoleuca</i>	–	–	1B.2	Associated with seasonally wet meadows, meadow ecotones, alkaline flats, vernal pools within sagebrush scrub or lower montane coniferous forest, terraces and toeslopes on soils that are primarily volcanic in origin. The plant has not been located on granitic soils. All of the associated soil types have slow permeability and incur periodic saturation from fluctuating water tables, and have subterranean flow associated with seeps and snow melt. 4,200–7,200 feet in elevation. Blooms May–October.	<i>Moderate</i> . Suitable habitat is present in the study area. Seasonal wetland habitat is potentially suitable for this species.
Santa Lucia dwarf rush <i>Juncus luciensis</i>	–	–	1B.2	Wet, sandy soils of seeps, meadows, wetlands, vernal pools, and streams. 985–6,695 feet in elevation. Blooms April–July.	<i>Moderate</i> . Suitable habitat is present in the study area. Freshwater emergent and riparian wetland habitat in the study area is potentially suitable for this species.
Long-petaled lewisia <i>Lewisia longipetala</i> (Synonym: <i>L. pygmaea</i> ssp. <i>longipetala</i>)	–	–	1B.3	Northerly exposures on slopes and ridge tops where snowbanks persist throughout the summer. Often found near the margins of snowbanks in wet soils. 8,000–12,500 feet in elevation. Blooms July–August.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area. The study area is below the known elevation range for this species.
Gray's lomatium <i>Lomatium grayi</i>	–	–	2B.3	Rocky banks and slopes in Great Basin scrub and pinyon/juniper woodland. 4,560–4,645 feet in elevation. Blooms April–June.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area. The study area is above the known elevation range for this species.
Broad-nerved hump moss <i>Meesia uliginosa</i>	–	–	2B.2	Bogs and fens, and permanently wet meadows, typically spring fed, in subalpine and upper montane coniferous forest. 4,265 to 9,200 feet.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area.
Sagebrush bluebells <i>Mertensia oblongifolia</i> var. <i>oblongifolia</i>	–	–	2B.2	Open slopes, dry meadows, generally spring-moist sites, especially in sagebrush in Great Basin scrub and coniferous forest. 3,280 to 9,845 feet in elevation. Blooms April to July.	<i>None</i> . Suitable microhabitat is not present in or adjacent to the study area.
Horishi's flapwort <i>Nardia hiroshii</i>	–	–	2B.3	Liverwort found in meadows and seeps. Known from a single location near Donner Peak in northern Nevada County. 7,200 feet in elevation.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area. The study area is below the known elevation range for this species.
Stebbins' phacelia <i>Phacelia stebbinsii</i>	–	–	1B.2	Among rocks and rubble on metamorphic rock benches, meadows, and lower montane coniferous forest. 2,000–6,595 feet in elevation. Blooms May–July.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area.
Nuttall's ribbon-leaved pondweed <i>Potamogeton epihydrus</i>	–	–	2B.2	Shallow water in ponds, lakes, streams, irrigation ditches. 970–8,660 feet in elevation. Blooms July–September.	<i>Moderate</i> . Suitable habitat for this species is present in the study area. Stream habitat associated with Trout Creek is potentially suitable for this species.
Robbins' pondweed <i>Potamogeton robbinsii</i>	–	–	2B.3	Deep water in lakes. 5,020–10,825 feet in elevation. Blooms July–August.	<i>None</i> . Suitable habitat is not present in or adjacent to the study area.

Species	Listing Status ¹ Federal	Listing Status ¹ State	CRPR ¹	Habitat	Potential for Occurrence ²
Alder buckthorn <i>Rhamnus alnifolia</i>	–	–	2B.2	Mesic sites including wet meadow edges, seeps and stream sides. 4,690–7,005 feet in elevation. Blooms May–July.	<i>Moderate.</i> Suitable habitat for this species is present in the study area. Wetland and riparian habitat is potentially suitable for this species.
Tahoe yellow cress <i>Rorippa subumbellata</i>	–	SE	1B.1	Endemic to the shorezone of Lake Tahoe, typically in back beach areas. Can be present on lakeside margins and in riparian communities on decomposed granite sand. 6,220–6,235 feet in elevation. Blooms May–September.	<i>None.</i> Suitable habitat is not present in or adjacent to the study area.
Marsh skullcap <i>Scutellaria galericulata</i>	–	–	2B.2	Swamps and wet places. 0–6,890 feet in elevation. Blooms June–September.	<i>Moderate.</i> Suitable habitat for this species is present in the study area. Freshwater emergent and riparian wetland habitat in the study area is potentially suitable for this species.
Cut-leaf checkerbloom <i>Sidalcea multifida</i>	–	–	2B.3	Dry places in Great Basin scrub and coniferous forest. 5,740 to 9,185 feet in elevation. Blooms May to September.	<i>Moderate.</i> Suitable habitat for this species is present in the study area. Coniferous forest and chaparral habitat suitable for this species.
Munro's desert mallow <i>Sphaeralcea munroana</i>	–	–	2B.2	Great Basin scrub. 6,560 feet in elevation. Blooms May–June.	<i>None.</i> Suitable habitat is not present in or adjacent to the study area.
Northern slender pondweed <i>Stuckenia filiformis</i> ssp. <i>Alpina</i>	–	–	2B.2	Shallow, clear waters of lakes and drainage channels. 15–7,630 feet in elevation. Blooms May–July.	<i>Moderate.</i> Suitable habitat for this species is in the study area. Stream habitat associated with Trout Creek is potentially suitable for this species.

¹ Listing Status Definitions

State:

SE State Listed as Endangered (legally protected by CESA)

California Rare Plant Ranks (CRPR):

- 1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA).
- 2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA).
- 3 Plant species for which the necessary information to assign them to one of the other ranks or to reject them is lacking. Many of the plants constituting California Rare Plant Rank 3 meet the definitions of the California Endangered Species Act of the California Fish and Game Code and are eligible for state listing (protected under CEQA, but not legally protected under ESA or CESA).
- 4 Plant species with limited distribution or are infrequent throughout a broader area in California whose status should be monitored regularly (protected under CEQA, but not legally protected under ESA or CESA).

CRPR Threat Ranks:

- 0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
- 0.2 Moderately threatened in California (20–80% occurrences threatened; moderate degree and immediacy of threat)
- 0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

² Potential for Occurrence Definitions

Present – Species was documented in the action area/study area by another reputable source.

High – All of the species' specific life history requirements can be met by habitat present in the action area/study area, and populations/occurrences are known to occur in the immediate vicinity.

Moderate – Some or all of the species life history requirements are provided by habitat in the action area/study area; populations/occurrences may not be known to occur in the immediate vicinity, but are known to occur in the region.

Low – Species not likely or expected to occur due to marginal habitat quality or distance from known occurrences.

None – None of the species' life history requirements are provided by habitat in the action area/study area and/or the action area is outside of the known distribution or elevation range for the species.

Sources: CDFW 2022a; CNPS 2022a; USFWS 2022a

Table 3 Special-Status Wildlife Species Known to Occur in the Vicinity of the Study area and Potential for Occurrence in the study area

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
Amphibians				
Southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i>	–	SSC	High elevation meadows and lakes in the Sierra Nevada, Cascade, and Klamath mountains. Aquatic larvae occur in ponds and lakes. Outside of breeding season adults are terrestrial and associated with underground burrows of mammals and moist areas under logs and rocks.	<i>Low.</i> Suitable pond/lake or wet meadow habitat was not observed in the study area.
Sierra Nevada yellow-legged frog <i>Rana sierrae</i>	FE	ST	Sierra Nevada yellow-legged frog (SNYLF) is highly aquatic, rarely moving far from water. The species primarily occurs in alpine lakes and other deep, perennial aquatic habitats (with sufficient depth to prevent freezing) above timberline in the central Sierra Nevada (Jennings and Hayes 1994, Vredenburg 2004), although suitable habitat may occur anywhere above 4,500 feet, typically (USFWS 2014). Most Sierra Nevada populations are found between 6,000–12,000 feet elevation. SNYLF can also occur in streams but appear absent from the smallest creeks presumably because of the lack of sufficient depth for aquatic refugia and year-round water for overwintering habitat (79 FR 24255). SNYLF requires aquatic habitat with shallow or gently sloping edge habitats and solar exposure to support necessary food resources; suitable sites for basking and cover, strongly favoring aquatic habitat with concealed underwater refugia; and uplands adjacent to suitable aquatic habitat for foraging and movement (USFWS 2014). Habitat suitability is impaired by the presence of nonnative salmonids, such as rainbow trout, brook trout, and brown trout, and American bullfrog, which is known to prey on tadpoles (Knapp and Mathews 2000).	<i>Low.</i> Trout Creek is the primary aquatic habitat feature in the study area. Although Trout Creek contains some biophysical attributes potentially suitable for SNYLF (e.g., perennial water with some pools), it does not contain optimal breeding habitat or nonbreeding habitat (e.g., dispersal habitat) that connects known breeding populations or habitat; and, no known extant occurrences of SNYLF have been documented in Trout Creek within or near the study area. The nearest documented SNYLF occurrence is approximately 2.5 miles northwest of the study area on Forest Service land (CDFW 2022a). Additionally, because SNYLF generally does not persist in aquatic habitats with fish due to predation (Brown et al. 2014), Trout Creek is not expected to support SNYLF as it supports non-native salmonids. The study area does not overlap with any USFWS-designated critical habitat for SNYLF.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
Birds				
Northern goshawk <i>Accipiter gentilis</i>	–	SSC	In the Sierra Nevada, goshawk generally requires mature conifer forests with large trees, snags, downed logs, dense canopy cover, and open understories for nesting; aspen stands also are used for nesting. Foraging habitat includes forests with dense to moderately open overstories and open understories interspersed with meadows, brush patches, riparian areas, or other natural or artificial openings. Goshawks reuse old nest structures and maintain alternate nest sites. Nest sites are often on low to moderate slopes with north aspects or gentle benches and near water.	<i>Low (Nesting)</i> . Conifer forest habitat with some biophysical and structural attributes considered suitable for northern goshawk nesting (e.g., stands with dense canopy closure and large-diameter trees) occurs in the northeast portion of the study area. However, this area (approximately 15 acres) is relatively small and subject to considerable levels of existing disturbances and habitat degradation from recreation and access in the study area, and disturbances and edge effects from adjacent land uses. The area surrounding potentially suitable habitat in the eastern portion of study area includes commercial/industrial and residential development, recreation uses including bikeways/trails, roadways, a major power line corridor, and disturbed conifer forest in fragmented undeveloped areas. Additionally, goshawk nesting has not been documented in or adjacent to the study area. Goshawks could occasionally forage or perch within, or otherwise move through, the study area.
Long-eared owl <i>Asio otus</i>	–	SSC	Found in a variety of habitat types throughout its range. Nest in woodland, forest, and open settings (e.g., grassland, shrub-steppe, and desert). Occupy wooded and nonwooded areas that support relatively dense vegetation (e.g., trees, shrubs) adjacent to or within larger open areas such as grasslands or meadows (i.e., habitat edges) (Bloom 1994; Marks, Evans, and Holt 1994). This species also has been documented breeding in contiguous conifer forest habitat with heavy mistletoe infestation (Bull, Wright, and Henjum 1989). Trees and shrubs used for nesting and roosting include oaks, willows, cottonwoods, conifers, and junipers (Marks, Evans, and Holt 1994).	<i>Moderate</i> . Although long-eared owl has been documented in the Truckee-Tahoe region, its breeding status and distribution are not well known; and habitat use has not been well-studied. Conifer forest and riparian habitat in the study area provide potential foraging and nesting habitat for long-eared owl.
Golden eagle <i>Aquila chrysaetos</i>	–	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	<i>None (nesting)</i> . Nesting habitat suitable for golden eagle is not present in or adjacent to the study area.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
Willow flycatcher <i>Empidonax traillii</i>	–	SE	In the Sierra Nevada, suitable habitat typically consists of montane meadows that support riparian deciduous shrubs (particularly willows) and remain wet through the nesting season (i.e., midsummer). Important characteristics of suitable meadows include a high water table that results in standing or slow-moving water, or saturated soils (e.g., “swampy” conditions) during the breeding season; abundant riparian deciduous shrub cover (particularly willow); and riparian shrub structure with moderate to high foliar density that is uniform from the ground to the shrub canopy. Most breeding occurrences are in meadows larger than 19 acres, but the average size of occupied meadows is approximately 80 acres. Although less common in the Sierra Nevada, riparian habitat along streams also can function as suitable habitat for willow flycatcher. However, those areas must support the hydrologic and vegetation characteristics described for suitable meadows (e.g., standing or slow-moving water, and abundant and dense riparian vegetation).	<i>Low (nesting)</i> . High-quality nesting habitat for willow flycatcher is not present in the study area; the riparian and meadow habitat in the study area lacks the specific combination of biophysical conditions that typically support nesting willow flycatcher (i.e., suitable hydrology, riparian shrub density, and meadow size). Passive listening surveys for willow flycatcher conducted by JBR in 2011 (JBR 2011) did not detect the species. Willow flycatchers could occasionally forage or perch within, or otherwise move through, the Trout Creek corridor in the study area.
American peregrine falcon <i>Falco peregrinus anatum</i>	–	FP	Nests and roosts on protected ledges of high cliffs, usually adjacent to water bodies and wetlands that support abundant avian prey.	<i>None (nesting)</i> . Nesting habitat suitable for peregrine falcon is not present in the study area. Peregrine falcons could occasionally move through or forage over portions of the study area; however, regular or concentrated use by this species is not expected.
Bald eagle <i>Haliaeetus leucocephalus</i>	–	SE FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially conifer trees. Roosts communally in winter.	<i>Low</i> . Nesting and foraging habitat suitable for bald eagle are not present in or adjacent to the study area. Bald eagles could occasionally perch or move through the study area, but any regular use is not expected.
Olive-sided flycatcher <i>Contopus cooperi</i>	–	SSC	Summer resident and migrant that breeds primarily in late-succession conifer forest with open canopy. Species prefers to forage near forest openings or edges.	<i>High</i> . This species is not uncommon in the Truckee-Tahoe region and is known to occur in open canopy conifer forests. Olive-sided flycatcher could use conifer forest habitats in the study area.
Yellow warbler <i>Setophaga petechia</i>	–	SSC	In the Sierra Nevada, yellow warbler typically breeds in wet areas with dense riparian vegetation. Breeding habitats primarily include willow patches in montane meadows, and riparian scrub and woodland dominated by willow, cottonwood, aspen, or alder with dense understory cover. Localized breeding has been documented in more xeric sites including chaparral, wild rose (<i>Rosa</i> spp.) thickets, and young conifer stands (Siegel and DeSante 1999, RHJV 2004).	<i>Present</i> . Suitable foraging and potential nesting habitat for yellow warbler is present in the study along Trout Creek, and yellow warbler was detected there during surveys in 2011 (JBR 2011).

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
California spotted owl <i>Strix occidentalis occidentalis</i>	-	SSC	Occur in several forest vegetation types including mixed conifer, ponderosa pine, red fir, and montane hardwood. Nesting habitat is generally characterized by dense canopy closure (i.e., greater than 70 percent) with medium to large trees and multistoried stands (i.e., at least two canopy layers). Foraging habitat can include intermediate to late-successional forest with greater than 40 percent canopy cover.	<i>Low (Nesting)</i> . Conifer forest habitat with some biophysical and structural attributes considered suitable for California spotted owl nesting (e.g., stands with dense canopy closure and large-diameter trees) occurs in the northeast portion of the study area. However, this area (approximately 15 acres) is not expected to support nesting California spotted owl for the same reasons described for northern goshawk, above.
Fish				
Lahontan mountain sucker <i>Catostomus lahontan</i>	-	SSC	Occur in the Walker, Carson, Truckee and Susan River drainages of the Lahontan basin in the eastern Sierra Nevada. Found in shallow (< 2 m), clear, low-gradient streams; associated with diverse substrates, from sand to boulders, in areas with dense cover.	<i>Moderate</i> . Lahontan mountain sucker has not been documented in the study area; however, Trout Creek may provide suitable habitat for the species. This species has been documented nearby in the Truckee River.
Lahontan cutthroat trout <i>Oncorhynchus clarkii henshawi</i>	FT	-	Found in both lake and stream habitats, but spawn in stream environments. Lahontan cutthroat trout (LCT) requires gravels and riffles for spawning and generally does not persist or occur with nonnative salmonids. No critical habitat has been designated for the species.	<i>Low</i> . In the Truckee-Tahoe region, LCT is absent from most of its historical range. Trout Creek is not considered occupied by LCT (JBR 2011).
Mountain whitefish <i>Prosopium williamsonii</i>	-	SSC	Clear, cool waters of high elevation streams, rivers, and lakes. Spawning occurs during late fall to early winter in shallow areas of small tributaries or shoreline areas of lakes, primarily over gravel, rubble, or cobble bottoms.	<i>Moderate</i> . Mountain whitefish has not been documented in the study area; however, Trout Creek may provide suitable habitat for the species. Mountain whitefish has been documented nearby in the Truckee River.
Invertebrates				
Monarch butterfly <i>Danaus plexippus</i>	FC	-	Monarch butterfly habitat requirements include host plants for larvae, primarily milkweeds (<i>Asclepias</i> spp.); adult nectar sources; and sites for roosting, thermoregulation, mating, hibernation, and predator escape. Additionally, monarch butterfly requires conditions and resources for initiating and completing migration both to and from winter roosting areas.	<i>Low</i> . Suitable breeding and migratory habitat for monarch butterfly are widespread across the western U.S., and the study area is within the spring/summer breeding and spring/fall migration ranges. However, although focused surveys for monarch have not been conducted for the project, milkweed (<i>Asclepias</i> spp.) host plants for monarch were not reported for botanical surveys conducted in 2011 (JBR 2011) and were not observed during the wetland delineation (Ascent Environmental 2022) and reconnaissance botanical surveys conducted in 2021 for this project. Additionally, monarch butterfly has not been reported in or adjacent to the study area by other sources reviewed. The Western Monarch Milkweed Mapper (WMMM; Xerces Society et al. 2022) reports a few observations of the species within approximately 5 miles of the study area.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
Mammals				
Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i>	–	SSC	Uses riparian habitats with soft, deep soils for burrowing, lush growth of preferred food sources such as willow and alder, and a variety of herbaceous species for bedding material. Vegetation types preferred include wet meadows and willow-alder-dominated riparian corridors typically near water sources. Suitable riparian habitats are characterized by dense growth of small deciduous trees and shrubs near permanent water. Mountain beaver is generally solitary, except during its short breeding season; beavers spend a high proportion of their time in extensive underground burrow systems with multiple openings, tunnels, and food caches.	<i>Moderate.</i> Some areas along Trout Creek in the study area provide dense riparian vegetation that may be suitable for Sierra Nevada mountain beaver. In 2011, the reaches of Trout Creek in the study area were searched for evidence of Sierra Nevada mountain beaver; none was not found (JBR 2011). However, mountain beaver populations have been reported in tributaries of the Truckee River near SR 89 (JBR 2011).
California wolverine <i>Gulo</i>	-	ST FP	High elevation, cold areas that maintain deep, persistent snow cover during the natal/maternal denning season (approximately February—May). Adequate year-round food supplies in large, sparsely inhabited wilderness areas. Generally avoids areas of human development, extensive human settlement and major access routes.	<i>Low.</i> While the study area is located within the historic range of California wolverine, this species is extremely rare and considered extirpated from most of its historic range in the Sierra Nevada. The nearest recent documentation of wolverine is several miles north of the study area. The study area does not contain suitable habitat for wolverine due to high levels of existing disturbance and other factors. Additionally, forest habitat in and adjacent to the study area does not retain snow consistently throughout the wolverine denning season.
Sierra Nevada snowshoe hare <i>Lepus americanus tahoensis</i>	–	SSC	Boreal riparian areas in the Sierra Nevada. Thickets of deciduous trees in riparian areas and thickets of young conifers.	<i>Moderate.</i> The Trout Creek riparian corridor could provide habitat suitable for snowshoe hare.
Western white-tailed jackrabbit <i>Lepus townsendii townsendii</i>	–	SSC	Year-round resident in sagebrush, subalpine conifer, juniper, and other habitats along the crest and the eastern slope of the Sierra Nevada, particularly open alpine and subalpine slopes and flat-top ridges (Richardson et al. 2018). Uncommon to rare.	<i>Low.</i> Species is rare in the region and the study area lacks its preferred habitat (open expanses of high-elevation terrain).
Sierra Nevada red fox <i>Vulpes vulpes necator</i>	FP	ST	Historically found from the Cascades down to the Sierra Nevada. The current distribution is believed to be restricted to a few small populations: one in the vicinity of Lassen Peak, another in the vicinity of Sonora Pass, and one in the Cascades. Found in a variety of habitats from wet meadows to forested areas. Use dense vegetation and rocky areas for cover and den sites. Prefer forests interspersed with meadows or alpine fell-fields.	<i>Low.</i> The CNDDDB (CDFW 2022a) contains a 1994 occurrence record for Sierra Nevada red fox from along SR 89 northeast of the study area. However, the study area is outside of the currently known distribution of the species.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
Western red bat <i>Lasiurus blossevillii</i>	–	SSC	Day roosting common in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. An association with intact riparian habitat may exist (particularly willows, cottonwoods, and sycamores).	<i>Moderate.</i> Though no documented occurrences of western red bat are known from the vicinity, the Trout Creek riparian corridor provides some potential roosting and foraging habitat in the study area.
Pallid bat <i>Antrozous pallidus</i>	–	SSC	Locally common at lower elevations in California and occurs in grassland, shrubland, woodland, and mixed conifer forests. Absent from highest elevation locations in the Sierra Nevada. Rocky outcrops, caves, crevices, and occasional tree/snag cavities or buildings provide roosts.	<i>Moderate.</i> Though no documented occurrences of pallid bat are known from the vicinity, the coniferous forest present in the study area and vicinity may provide suitable foraging habitat as well as roosting habitat in large trees and snags and in more open areas.

¹ Regulatory Status Definitions

Federal:

- FE Federally Listed as Endangered (legally protected)
- FT Federally Listed as Threatened (legally protected)
- FP Proposed for Listing under ESA (not legally protected by ESA)
- FC Candidate for Listing under ESA (not legally protected by ESA)

State:

- FP Fully protected (legally protected)
- SSC Species of special concern (no formal protection other than CEQA consideration)
- SE State Listed as Endangered (legally protected)
- ST State Listed as Threatened (legally protected)
- SD State Delisted

² Potential for Occurrence Definitions

Present – Species was documented in the action area/study area by another reputable source.

High – All of the species’ specific life history requirements can be met by habitat present in the action area/study area, and populations/occurrences are known to occur in the immediate vicinity.

Moderate – Some or all of the species life history requirements are provided by habitat in the action area/study area; populations/occurrences may not be known to occur in the immediate vicinity, but are known to occur in the region.

Low – Species not likely or expected to occur due to marginal habitat quality or distance from known occurrences.

None – None of the species’ life history requirements are provided by habitat in the action area/study area and/or the action area is outside of the known distribution or elevation range for the species.

Sources: CDFW 2022a; USFWS 2022a

4.6.1 Common Raptor Species

Common raptor species, such as red-tailed hawk (*Buteo jamaicensis*), Cooper’s hawk (*Accipiter cooperii*), and great horned owl (*Bubo virginianus*), are not considered special-status species because they are not rare or protected under the federal or state Endangered Species Acts. However, nests of these species are protected under the MBTA and Section 3503.5 of the California Fish and Game Code. Common raptor species could nest in the study area.

4.6.2 Common Migratory Birds

A large number of common bird species are migratory and are afforded protection under the MBTA. Occupied nests of all migratory birds are protected under the MBTA, which makes it illegal to intentionally take these species or destroy their eggs. In addition, under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this Code or any regulation made pursuant thereto. Section 3503.5 of the Code prohibits take, possession, or destruction of any birds in the orders

Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Migratory non-game birds are protected under Section 3800, while other specified birds are protected under Section 3505. The study area supports numerous common migratory bird species associated with conifer forest, riparian/wetland, and montane chaparral habitats.

5 CONCLUSIONS AND RECOMMENDATIONS

The primary sensitive biological resources known or with potential to occur in the study area include special-status plant and animal species, waters of the United States and waters of the State, riparian habitat, and trees protected by Town of Truckee regulations. Based on the occurrence of regulated habitats in the study area including potentially jurisdictional waters of the United States and waters of the State, and habitats that could support special-status plant and wildlife species, the following summarizes the key potential biological constraints or issues preliminarily identified for the proposed Pioneer Trail and Bridge Street Extension Project. Recommended measures, or considerations for developing project-specific measures, to avoid or minimize impacts on sensitive or protected biological resources are also provided. During project design refinement and environmental review, additional biological resources issues and more refined or additional avoidance/minimization measures to reduce potentially significant impacts may be identified.

5.1 SPECIAL-STATUS PLANT SPECIES

Special-status plant species with the potential to occur within the study area are listed in Table 2. Construction activities proposed within suitable habitat for special-status plant species could result in the removal or construction-related disturbance to special-status plant species. Loss of special-status plant species would be considered a significant impact under CEQA. The following mitigation measures would reduce the impact to less than significant by determining if the species are present and providing compensatory mitigation that achieves a no-net loss standard if they are present and could not be avoided.

- ▶ Special-status plant survey(s) using the CDFW recommended methods in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) will be conducted in the study area during the appropriate blooming period for those species with the potential to occur in the study area as listed in Table 2.
- ▶ If special-status plants are not observed in the study area, no additional mitigation will be required.
- ▶ If special-status plant species are found that cannot be avoided during construction, the Town of Truckee will consult with CDFW and/or USFWS, as appropriate depending on species status, to determine the appropriate mitigation measures for direct and indirect impacts that could occur as a result of project construction. The Town of Truckee will implement the agreed-upon mitigation measures to achieve no-net loss of occupied habitat or individuals.
- ▶ Mitigation measures may include preserving and enhancing existing populations, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat and/or individuals. A mitigation and monitoring plan will be developed describing how unavoidable losses of special-status plants will be compensated.
- ▶ If relocation efforts are part of the mitigation plan, the plan will include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements.
- ▶ Success criteria for preserved and compensatory populations will include:
 - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.

- Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when:
 - plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and
 - reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.
- ▶ If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long-term viable populations.

5.2 SPECIAL-STATUS ANIMAL SPECIES

Special-status animal species known or with a moderate to high potential to occur in the study area are: yellow warbler, long-eared owl, olive-sided flycatcher, pallid bat, western red bat, Sierra Nevada mountain beaver, Sierra Nevada snowshoe hare, Lahontan mountain sucker, and mountain whitefish. Table 3 summarizes the regulatory status, habitat associations, and potential for occurrence in the study area for each special-status wildlife and fish species evaluated during this analysis. Suitable or optimal breeding habitat in the study area for five of these species – yellow warbler, Sierra Nevada mountain beaver, snowshoe hare, western red bat, mountain sucker, and mountain whitefish – is limited to the Trout Creek riparian corridor. This assessment assumes that construction of the proposed trail facilities would not require vegetation removal or other ground disturbances within the Trout Creek riparian corridor; and, therefore, potentially significant impacts on these species would be avoided.

For long-eared owl, olive-sided flycatcher, and pallid bat, project construction could occur in suitable habitats for these species. Depending on the specific locations of the proposed trail alignment, construction timing, and habitats requiring disturbance or removal during construction, project activities could cause the disturbance or removal of active breeding or roosting sites, if the species are present. The potential loss or disturbance of active nests or important bat roosts could be a significant impact under CEQA, unless adequate avoidance, minimization, and/or other mitigation is incorporated. Appropriate measures would generally involve designing and conducting preconstruction surveys for nesting olive-sided flycatcher and long-eared owl, and active bat roosts, before ground disturbance and vegetation removal in suitable habitat; and implementing protections such as a no-disturbance buffer and limited operating period (LOP) around an active nest or roost site.

5.3 COMMON RAPTORS AND OTHER NESTING BIRDS

Project construction could adversely affect common raptors and other migratory birds through disturbance during the breeding season and removal of active nests, if nesting birds are present during construction. Native birds and their nests are protected under the Migratory Bird Treaty Act and Sections 3503 and 3503.5 of the California Fish and Game Code. The loss of active nests of raptors and other native bird species would conflict with these regulations. To minimize and avoid potential construction-related loss of active bird nests and comply with these regulations, measures to minimize and avoid project-related loss of active nests during construction of trail facilities may be required, unless construction occurs outside the nesting season. (The nesting season is defined generally as March 1 through August 31, depending on species, weather, and snowpack). For any unavoidable disturbance to suitable nesting habitat during the nesting season, appropriate measures would generally involve conducting preconstruction surveys for nesting birds before ground disturbance and vegetation removal in suitable nesting habitat, and implementing protections such as a no-disturbance buffer and LOP around an active nest until the young have fledged or the nest is otherwise no longer active.

5.4 AQUATIC RESOURCES

Potentially jurisdictional aquatic resources occur within the study area in the form of Trout Creek, ephemeral channels, freshwater emergent wetland, seasonal wetland, and riparian wetland. Section 404 of the CWA requires that a permit be obtained from the USACE before the discharge of dredged or fill materials into any “waters of the United States,” which includes wetlands and intermittent channels. Section 404 permits generally require mitigation to offset losses of these habitat types, in accordance with Executive Order 11990, which is intended to result in no net loss of wetland values or acres. Waters of the state are defined as any surface or subsurface water and are protected by the Porter-Cologne Act. Work in, above, or near the channels could require a Streambed Alteration Agreement with CDFW pursuant to §1600 of State Fish and Game Code.

The following mitigation measures would reduce the impacts to a less-than-significant level.

- ▶ The aquatic resources delineation will be submitted to and verified by USACE. If, based on the verified delineation and project design, it is determined that fill of or discharge to waters of the United States or state would result from implementation of the project, authorization for such fill or discharge will be secured from USACE through the Section 404 permitting process.
- ▶ In association with the Section 404 permit (if applicable) and before the issuance of any grading permit, Section 401 Water Quality Certification from the RWQCB will be obtained. *Procedures for Regulation of Discharges of Dredged or Fill Material to Waters of the State* (California Water Board) will be followed for impacts to waters of the State that are not subject to USACE jurisdiction.
- ▶ If activities require the need for a Streambed Alteration Agreement under California Fish and Game Code Section 1602, the Town will obtain an agreement from CDFW before project construction. The Town will conduct construction activities in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect the fish and wildlife resources, when working within the bed or bank of waterways that function as a fish or wildlife resource or in riparian habitats associated with those waterways or when working within the flood plain of a water body.

5.5 TOWN OF TRUCKEE TREE ORDINANCE

Implementation of the proposed project within the study area could result in the removal of trees protected under Section 18.30.155 of the Town of Truckee Development Code. Tree removal within the study area may be required and may be a significant impact under CEQA.

6 REFERENCES

- Ascent Environmental, Inc. 2022. Pioneer Trail and Bridge Street Extension Project Aquatic Resources Delineation Report. Prepared for Town of Truckee. February 2022.
- 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: University of California Press.
- Bloom, P.H. 1994. The Biology and Current Status of the Long-Eared Owl in Coastal Southern California. *Bulletin of the Southern California Academy of Science* 93:1–12.
- Brown, C., Hayes, M., Green, G., and D. Macfarlane. 2014. Mountain Yellow-legged Frog Conservation Assessment for the Sierra Nevada. Draft. 14 January.
- Bull E. L., A. L. Wright, and M. G. Henjum. 1989. Nesting and Diet of Long-Eared Owls in Conifer Forests, Oregon. *Condor* 91:908–912. California Invasive Plant Council. 2012 Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers (3rd Edition). Cal-IPC Publication 2012-03. California Invasive Plant Council. Berkeley, CA.

- California Department of Fish and Wildlife (CDFW). 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*. California Department of Fish and Wildlife. Sacramento, CA.
- . 2022a. *California Natural Diversity Database (CNDDDB) Rarefind 5 computer program* (v5.2.14). California Department of Fish and Wildlife Biogeographic Data Branch. Sacramento, CA.
- . 2022b. *Special Vascular Plants, Bryophytes, and Lichens List*. California Department of Fish and Wildlife, Natural Diversity Database. Sacramento, CA. Quarterly publication. Data dated January 2022.
- . 2022cc. *Special Animals List*. California Department of Fish and Wildlife, Natural Diversity Database. Sacramento, CA. Periodic publication. Data dated January 2022.
- . 2022d. *Natural Communities List*. Available: <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities>.
- . 2022e. California Habitat Connectivity Projects: BIOS Habitat Connectivity Viewer. Available: <https://www.wildlife.ca.gov/Data/BIOS>.
- California Native Plant Society (CNPS). 2022a. *Inventory of Rare and Endangered Plants* (online edition, v9-01 1.0). California Native Plant Society. Sacramento, CA.
- . 2022b. A Manual of California Vegetation, Online Edition. <http://www.cnps.org/cnps/vegetation>.
- CDFW. See California Department of Wildlife.
- CNPS. See California Native Plant Society.
- Federal Geographic Data Committee. 2013. *Classification of Wetlands and Deepwater Habitats of the United States*. Adapted from Cowardin, Carter, Golet, and LaRoe (1979). FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
- FGDC. See Federal Geographic Data Committee.
- Google Earth. 2022. earth.google.com/web/.
- JBR. See JBR Environmental Consultants.
- JBR Environmental Consultants. 2011. Plant and Wildlife Baseline Report, Tahoe Donner to Downtown Recreation Trail. Prepared for Town of Truckee. October 6, 2011.
- . 2012. Town of Truckee, Tahoe Donner to Downtown Recreation Trail Wetland Delineation. Prepared for Town of Truckee. January 4, 2012.
- Jennings, M. and M. Hayes. 1994. Amphibian and reptile species of special concern in California. California Department of Fish and Game. Sacramento, CA.
- Jepson Flora Project (eds.). 2022. *Jepson eFlora*. Available at: <http://ucjeps.berkeley.edu/flora/>.
- Knapp, R. A. and K. R. Matthews. 2000. Effects of nonnative fishes on wilderness lake ecosystems in the Sierra Nevada and recommendations for reducing impacts. Pages 312–317 in *Proceedings: Wilderness Science in a Time of Change*. Rocky Mountain Research Station. Ogden, UT.
- Marks, J. S., D. L. Evans, and D. W. Holt. 1994. Long-Eared Owl (*Asio otus*). In A. Poole and F. Gill (eds.), *The Birds of North America*. The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, DC.
- Mayer, K. E., and W.F. Laudenslayer, Jr., 1988. *A Guide to Wildlife Habitats of California*. State of California Resources Agency, California Department of Fish and Game. Sacramento, CA. Sacramento, CA. 166 pp. Available: <http://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>.
- RHJV. See Riparian Habitat Joint Venture.

- Richardson, W., P. F. Brussard, and D. D. Murphy. 2018. Status and Distribution of Montane Lagomorphs in the Lake Tahoe Basin, with Emphasis on White-tailed Jackrabbit (*Lepus townsendii*). Final Report presented to the Nevada Division of State Lands, Lake Tahoe License Plate Program.
- Riparian Habitat Joint Venture. 2004. The Riparian Bird Conservation Plan: A Strategy for Reversing the Decline of Riparian Associated Birds in California. Version 2.0. California Partners in Flight. Available: http://www.prbo.org/calpif/pdfs/riparian_v-2.pdf.
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation*. Second edition. California Native Plant Society Press, Sacramento, California, USA.
- Siegel, R.B. and D.F. DeSante. 1999. The Draft Avian Conservation Plan for the Sierra Nevada Bioregion: Conservation Priorities and Strategies for Safeguarding Sierra Bird Populations. Version 1.0. Institute for Bird Populations Report to California Partners in Flight.
- USDA. See U.S. Department of Agriculture.
- U.S. Department of Agriculture. 2022. *PLANTS Database*. Available at: plants.usda.gov/home.
- U.S. Fish and Wildlife Service. 2014. Programmatic Biological Opinion on Nine Forest Programs on Nine National Forests in the Sierra Nevada of California for the Endangered Sierra Nevada Yellow-legged Frog, Endangered Northern Distinct Population Segment of the Mountain Yellow-legged Frog, and Threatened Yosemite Toad. Ref. FF08ESMF00-2014-F-0557. December 19. Issued to USDA Forest Service, Pacific Southwest Region, Vallejo, CA. Sacramento Fish and Wildlife Office. Sacramento, CA.
- . 2022a. *List of Federal Endangered and Threatened Species that may occur in the Project Area*. Sacramento Fish and Wildlife Office, Endangered Species Division.
- . 2022b. *Critical Habitat for Threatened and Endangered Species. Critical Habitat Portal Online Mapper*. Available: <http://ecos.fws.gov/crithab/>.
- . 2022c. National Wetlands Inventory. Available: <http://fws.gov/wetlands/>.USFWS. See U.S. Fish and Wildlife Service.
- USFWS. See U.S. Fish and Wildlife Service.
- Vredenburg, V. T. 2004. Reversing introduced species effects: Experimental removal of introduced fish leads to rapid recovery of a declining frog. *Proceedings of the National Academy of Sciences, USA* 101:7646-7650.
- Xerces Society, Idaho Department of Fish and Game, and Washington Department of Fish and Wildlife. 2022. Western Monarch Milkweed Mapper. Available: <https://www.monarchmilkweedmapper.org/>. Accessed January 27, 2022.

This page intentionally left blank.

Appendix A

Database Search Results



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Truckee) OR Hobart Mills (3912042) OR Boca (3912041) OR Norden (3912033) OR Independence Lake (3912043) OR Kings Beach (3912021) OR Martis Peak (3912031) OR Granite Chief (3912023) OR Tahoe City (3912022)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Accipiter gentilis</i> northern goshawk	ABNKC12060	None	None	G5	S3	SSC
<i>Ambystoma macrodactylum sigillatum</i> southern long-toed salamander	AAAAA01085	None	None	G5T4	S3	SSC
<i>Antigone canadensis tabida</i> greater sandhill crane	ABNMK01014	None	Threatened	G5T5	S2	FP
<i>Aplodontia rufa californica</i> Sierra Nevada mountain beaver	AMAF01013	None	None	G5T3T4	S2S3	SSC
<i>Arabis rigidissima var. demota</i> Galena Creek rockcress	PDBRA061R1	None	None	G3T3Q	S1	1B.2
<i>Artemisia tripartita ssp. tripartita</i> threetip sagebrush	PDAST0S1S2	None	None	G5T4T5	S2	2B.3
<i>Astragalus austiniae</i> Austin's astragalus	PDFAB0F120	None	None	G2G3	S2S3	1B.3
<i>Bombus morrisoni</i> Morrison bumble bee	IIHYM24460	None	None	G4G5	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	None	G2G3	S1	
<i>Botrychium ascendens</i> upswept moonwort	PPOPH010S0	None	None	G3G4	S2	2B.3
<i>Botrychium crenulatum</i> scalloped moonwort	PPOPH010L0	None	None	G4	S3	2B.2
<i>Botrychium lunaria</i> common moonwort	PPOPH01080	None	None	G5	S2	2B.3
<i>Botrychium minganense</i> Mingan moonwort	PPOPH010R0	None	None	G4G5	S3	2B.2
<i>Bruchia bolanderi</i> Bolander's bruchia	NBMUS13010	None	None	G3G4	S3	4.2
<i>Capnia lacustra</i> Lake Tahoe benthic stonefly	IIPLE03200	None	None	G1	S1	
<i>Carex davyi</i> Davy's sedge	PMCYP033H0	None	None	G3	S3	1B.3
<i>Carex lasiocarpa</i> woolly-fruited sedge	PMCYP03720	None	None	G5	S2	2B.3



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Carex limosa mud sedge	PMCYP037K0	None	None	G5	S3	2B.2
Catostomus lahontan Lahontan mountain sucker	AFCJC02330	None	None	GNR	S2	SSC
Claytonia megarhiza fell-fields claytonia	PDPOR030A0	None	None	G5	S2	2B.3
Cryptochia excella Kings Canyon cryptochian caddisfly	IITRI11010	None	None	G1G2	S1S2	
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC
Desmona bethula amphibious caddisfly	IITRI77010	None	None	G2G3	S2S3	
Drosera anglica English sundew	PDDRO02010	None	None	G5	S2	2B.3
Ecclisomyia bilera Kings Creek ecclisomyian caddisfly	IITRI12010	None	None	G1G2	S1S2	
Empidonax traillii willow flycatcher	ABPAE33040	None	Endangered	G5	S1S2	
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Erigeron miser starved daisy	PDAST3M2K0	None	None	G3?	S3?	1B.3
Eriogonum umbellatum var. torreyanum Donner Pass buckwheat	PDPGN086U9	None	None	G5T2	S2	1B.2
Fen Fen	CTT51200CA	None	None	G2	S1.2	
Glyceria grandis American manna grass	PMPOA2Y080	None	None	G5	S3	2B.3
Goeracea oregona Sagehen Creek goeracean caddisfly	IITRI0X010	None	None	G3	S1S2	
Great Basin Cutthroat Trout/Paiute Sculpin Stream Great Basin Cutthroat Trout/Paiute Sculpin Stream	CARC2320CA	None	None	GNR	SNR	
Great Basin Sucker/Dace/Redside Stream With Cutthroat Trout Great Basin Sucker/Dace/Redside Stream With Cutthroat Trout	CARC2331CA	None	None	GNR	SNR	
Gulo gulo wolverine	AMAJF03010	None	Threatened	G4	S1	FP
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Helisoma newberryi Great Basin rams-horn	IMGASM6020	None	None	G1	S1S2	
Ivesia sericoleuca Plumas ivesia	PDR0S0X0K0	None	None	G2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Juncus luciensis</i> Santa Lucia dwarf rush	PMJUN013J0	None	None	G3	S3	1B.2
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
<i>Lepidostoma ermanae</i> Cold Spring caddisfly	IITRI01050	None	None	G1G2	S1S2	
<i>Lepus americanus tahoensis</i> Sierra Nevada snowshoe hare	AMAEB03012	None	None	G5T3T4Q	S2	SSC
<i>Lepus townsendii townsendii</i> western white-tailed jackrabbit	AMAEB03041	None	None	G5T5	S3?	SSC
<i>Lewisia longipetala</i> long-petaled lewisia	PDPOR040K0	None	None	G2	S2	1B.3
<i>Lithobates pipiens</i> northern leopard frog	AAABH01170	None	None	G5	S2	SSC
<i>Lomatium grayi</i> Gray's lomatium	PDAP11B0Q0	None	None	G5	S1S2	2B.3
<i>Margaritifera falcata</i> western pearlshell	IMBIV27020	None	None	G4G5	S1S2	
<i>Martes caurina sierrae</i> Sierra marten	AMAJF01014	None	None	G4G5T3	S3	
<i>Meesia triquetra</i> three-ranked hump moss	NBMUS4L020	None	None	G5	S4	4.2
<i>Meesia uliginosa</i> broad-nerved hump moss	NBMUS4L030	None	None	G5	S3	2B.2
<i>Mertensia oblongifolia var. oblongifolia</i> sagebrush bluebells	PDBOR0N0G2	None	None	G5T5	S3	2B.2
<i>Myotis volans</i> long-legged myotis	AMACC01110	None	None	G4G5	S3	
<i>Nardia hiroshii</i> Hiroshi's flapwort	NBHEP2A080	None	None	G4G5	S1	2B.3
<i>Ochotona princeps schisticeps</i> gray-headed pika	AMAEA0102L	None	None	G5T4	S2S4	
<i>Oncorhynchus clarkii henshawi</i> Lahontan cutthroat trout	AFCHA02081	Threatened	None	G5T3	S1	
<i>Pandion haliaetus</i> osprey	ABNKC01010	None	None	G5	S4	WL
<i>Pekania pennanti</i> Fisher	AMAJF01020	None	None	G5	S2S3	SSC
<i>Phacelia stebbinsii</i> Stebbins' phacelia	PDHYD0C4D0	None	None	G3	S3	1B.2
<i>Picoides arcticus</i> black-backed woodpecker	ABNYF07090	None	None	G5	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Potamogeton epihydrus</i> Nuttall's ribbon-leaved pondweed	PMPOT03080	None	None	G5	S2S3	2B.2
<i>Potamogeton robbinsii</i> Robbins' pondweed	PMPOT030Z0	None	None	G5	S3	2B.3
<i>Prosopium williamsoni</i> mountain whitefish	AFCHA03060	None	None	G5	S3	SSC
<i>Rana sierrae</i> Sierra Nevada yellow-legged frog	AAABH01340	Endangered	Threatened	G1	S1	WL
<i>Rhamnus alnifolia</i> alder buckthorn	PDRHA0C010	None	None	G5	S3	2B.2
<i>Rorippa subumbellata</i> Tahoe yellow cress	PDBRA270M0	None	Endangered	G1	S1	1B.1
<i>Scutellaria galericulata</i> marsh skullcap	PDLAM1U0J0	None	None	G5	S2	2B.2
<i>Setophaga petechia</i> yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
<i>Sidalcea multifida</i> cut-leaf checkerbloom	PDMAL110G0	None	None	G3	S2	2B.3
<i>Siphoteles bicolor pectinifer</i> Lahontan Lake tui chub	AFCJB1303P	None	None	G4T3	S1S2	SSC
<i>Sphaeralcea munroana</i> Munro's desert mallow	PDMAL140F0	None	None	G4	S1	2B.2
<i>Stuckenia filiformis ssp. alpina</i> northern slender pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
<i>Stygobromus lacicolus</i> Lake Tahoe amphipod	ICMAL05970	None	None	G1	S1	
<i>Stygobromus sheldoni</i> Sheldon's amphipod	ICMAL05A40	None	None	G1	S1	
<i>Stygobromus tahoensis</i> Lake Tahoe stygobromid	ICMAL05A70	None	None	G1	S1	
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Vulpes vulpes necator</i> Sierra Nevada red fox	AMAJA03012	None	Threatened	G5T1T2	S1	

Record Count: 77



Inventory of Rare and Endangered Plants of California









Search Results




47 matches found. Click on scientific name for details






Search Criteria: 9-Quad include [3912042:3912041:3912043:3912021:3912031:3912022:3912023:3912033:3912032]


▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	GENERAL HABITATS	MICRO HABITATS	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	CA ENDEMIC	PHOTO
<i>Agrostis humilis</i>	mountain bent grass	Poaceae	perennial herb	Jul-Sep	None	None	G4Q	S2	2B.3	Alpine boulder and rock field, Meadows and seeps, Subalpine coniferous forest	Carbonate (sometimes)	8760	10500		 © 2004 Steve Matson
<i>Arabis rigidissima</i> var. <i>demota</i>	Galena Creek rockcress	Brassicaceae	perennial herb	Jul-Aug	None	None	G3T3Q	S1	1B.2	Broadleafed upland forest, Upper montane coniferous forest	Rocky	7400	8400		No Photo Available
<i>Artemisia tripartita</i> ssp. <i>tripartita</i>	threetip sagebrush	Asteraceae	perennial shrub	Aug	None	None	G5T4T5	S2	2B.3	Upper montane coniferous forest	Rocky, Volcanic	7220	8530		No Photo Available
<i>Astragalus austiniae</i>	Austin's astragalus	Fabaceae	perennial herb	(May)Jul-Sep	None	None	G2G3	S2S3	1B.3	Alpine boulder and rock field, Subalpine coniferous forest	Rocky	8005	9745		No Photo Available
<i>Astragalus whitneyi</i> var. <i>lenophyllus</i>	woolly-leaved milk-vetch	Fabaceae	perennial herb	Jul-Aug	None	None	G5T4	S4	4.3	Alpine boulder and rock field, Subalpine coniferous forest		7005	10005		No Photo Available
<i>Botrychium ascendens</i>	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	(Jun)Jul-Aug	None	None	G3G4	S2	2B.3	Lower montane coniferous forest, Meadows and seeps	Mesic	3660	9990		 © 2005 Steve Matson


<i>Botrychium crenulatum</i>	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	None	None	G4	S3	2B.2	Bogs and fens, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Upper montane coniferous forest	4160	10760	 © 2016 Steve Matson
<i>Botrychium lunaria</i>	common moonwort	Ophioglossaceae	perennial rhizomatous herb	Aug	None	None	G5	S2	2B.3	Meadows and seeps, Subalpine coniferous forest, Upper montane coniferous forest	6495	11155	No Photo Available
<i>Botrychium minganense</i>	Mingan moonwort	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	None	None	G4G5	S3	2B.2	Bogs and fens, Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest	4775	7155	Mesic  © 2011 Aaron E. Sims
<i>Bruchia bolanderi</i>	Bolander's bruchia	Bruchianaceae	moss		None	None	G3G4	S3	4.2	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest	5580	9185	 ©2021 Scot Loring
<i>Carex davyi</i>	Davy's sedge	Cyperaceae	perennial herb	May-Aug	None	None	G3	S3	1B.3	Subalpine coniferous forest, Upper montane coniferous forest	4920	10500	No Photo Available
<i>Carex lasiocarpa</i>	woolly-fruited sedge	Cyperaceae	perennial rhizomatous herb	Jun-Jul	None	None	G5	S2	2B.3	Bogs and fens, Marshes and swamps	5580	6890	 © 2011 Sierra Pacific Industries

<i>Carex limosa</i>	mud sedge	Cyperaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S3	2B.2	Bogs and fens, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Upper montane coniferous forest		3935	8860			Steve Matson 2009
<i>Ceanothus fresnensis</i>	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	(Apr)May- Jul	None	None	G4	S4	4.3	Cismontane woodland, Lower montane coniferous forest		2955	7250	Yes		No Photo Available
<i>Claytonia megarhiza</i>	fell-fields claytonia	Montiaceae	perennial herb	Jul-Sep	None	None	G5	S2	2B.3	Alpine boulder and rock field, Subalpine coniferous forest		8530	11590			No Photo Available
<i>Cryptantha glomeriflora</i>	clustered- flower cryptantha	Boraginaceae	annual herb	Jun-Sep	None	None	G4Q	S4	4.3	Great Basin scrub, Meadows and seeps, Subalpine coniferous forest, Upper montane coniferous forest	Granitic (sometimes), Sandy, Volcanic (sometimes)	5905	12305	Yes		No Photo Available
<i>Drosera anglica</i>	English sundew	Droseraceae	perennial herb (carnivorous)	Jun-Sep	None	None	G5	S2	2B.3	Bogs and fens, Meadows and seeps		4265	7400			Barry Rice 2007
<i>Epilobium howellii</i>	subalpine fireweed	Onagraceae	perennial stoloniferous herb	Jul-Aug	None	None	G4	S4	4.3	Meadows and seeps, Subalpine coniferous forest	Mesic	6560	10235	Yes		No Photo Available
<i>Erigeron miser</i>	starved daisy	Asteraceae	perennial herb	Jun-Oct	None	None	G3?	S3?	1B.3	Upper montane coniferous forest		6035	8595	Yes		No Photo Available
<i>Erigeron petrophilus</i> <i>var. sierrensis</i>	northern Sierra daisy	Asteraceae	perennial rhizomatous herb	Jun-Oct	None	None	G4T4	S4	4.3	Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest	Serpentinite (sometimes)	985	6800	Yes		No Photo Available

<i>Eriogonum umbellatum</i> <i>var. torreyanum</i>	Donner Pass buckwheat	Polygonaceae	perennial herb	Jul-Sep	None	None	G5T2	S2	1B.2	Meadows and seeps, Upper montane coniferous forest	Rocky, Volcanic	6085	8595	Yes	No Photo Available
<i>Eriophorum gracile</i>	slender cottongrass	Cyperaceae	perennial rhizomatous herb (emergent)	May-Sep	None	None	G5	S4	4.3	Bogs and fens, Meadows and seeps, Upper montane coniferous forest	Acidic	4200	9515		 ©2011 Steven Perry
<i>Eurybia merita</i>	subalpine aster	Asteraceae	perennial herb		None	None	G5	SH	2B.3	Upper montane coniferous forest		4265	6560		No Photo Available
<i>Glyceria grandis</i>	American manna grass	Poaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S3	2B.3	Bogs and fens, Marshes and swamps, Meadows and seeps		50	6495		No Photo Available
<i>Hackelia amethystina</i>	amethyst stickseed	Boraginaceae	perennial herb	Jun-Jul(Aug)	None	None	G4	S4	4.3	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest	Disturbed areas, Openings	4920	7595	Yes	 © 2018 John Doyen
<i>Ivesia sericoleuca</i>	Plumas ivesia	Rosaceae	perennial herb	May-Oct	None	None	G2	S2	1B.2	Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Vernal pools	Vernally Mesic, Volcanic (usually)	4300	7220	Yes	 © 2003 Steve Matson
<i>Juncus hemiendytus</i> <i>var. abjectus</i>	Center Basin rush	Juncaceae	annual herb	May-Jun(Jul)	None	None	G5T5	S4	4.3	Meadows and seeps, Subalpine coniferous forest	Mesic	4595	11155		 ©2008 Steve Matson
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	Juncaceae	annual herb	Apr-Jul	None	None	G3	S3	1B.2	Chaparral, Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Vernal pools		985	6695	Yes	 © 2009 Keir Morse

<u>Lewisia kelloggii ssp. hutchisonii</u>	Hutchison's lewisia	Montiaceae	perennial herb	(Apr)May-Aug	None	None	G3G4T3Q	S3	3.2	Upper montane coniferous forest	Openings	2510	7760	Yes	 Dean Wm. Taylor 2006
<u>Lewisia longipetala</u>	long-petaled lewisia	Montiaceae	perennial herb	Jul-Aug(Sep)	None	None	G2	S2	1B.3	Alpine boulder and rock field, Subalpine coniferous forest	Granitic	8205	9595	Yes	 © 2009 Gary A. Monroe
<u>Lomatium grayi</u>	Gray's lomatium	Apiaceae	perennial herb	Apr-Jun	None	None	G5	S1S2	2B.3	Great Basin scrub, Pinyon and juniper woodland		4560	4645		No Photo Available
<u>Meesia triquetra</u>	three-ranked hump moss	Meesiaceae	moss	Jul	None	None	G5	S4	4.2	Bogs and fens, Meadows and seeps, Subalpine coniferous forest, Upper montane coniferous forest		4265	9690		 Steve Matson 2008
<u>Meesia uliginosa</u>	broad-nerved hump moss	Meesiaceae	moss	Jul-Oct	None	None	G5	S3	2B.2	Bogs and fens, Meadows and seeps, Subalpine coniferous forest, Upper montane coniferous forest		3970	9200		 ©2013 Scot Loring
<u>Mertensia oblongifolia</u> var. <u>oblongifolia</u>	sagebrush bluebells	Boraginaceae	perennial herb	Apr-Jul	None	None	G5T5	S3	2B.2	Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Subalpine coniferous forest		3280	9845		No Photo Available
<u>Nardia hiroshii</u>	Hiroshi's flapwort	Jungermanniaceae	liverwort		None	None	G4G5	S1	2B.3	Meadows and seeps		7200	7200		No Photo Available
<u>Phacelia stebbinsii</u>	Stebbins' phacelia	Hydrophyllaceae	annual herb	May-Jul	None	None	G3	S3	1B.2	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps		2000	6595	Yes	No Photo Available
<u>Potamogeton epihydrus</u>	Nuttall's ribbon-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	(Jun)Jul-Sep	None	None	G5	S2S3	2B.2	Marshes and swamps		1210	7125		 Louis-M. Landry, 2010

<i>Potamogeton robbinsii</i>	Robbins' pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	Jul-Aug	None	None	G5	S3	2B.3	Marshes and swamps	5020	10825	No Photo Available
<i>Primula pauciflora</i>	beautiful shootingstar	Primulaceae	perennial herb	Apr-Jun	None	None	G5	S3	4.2	Great Basin scrub, Meadows and seeps, Pinyon and juniper woodland	3280	7810	No Photo Available
<i>Rhamnus alnifolia</i>	alder buckthorn	Rhamnaceae	perennial deciduous shrub	May-Jul	None	None	G5	S3	2B.2	Lower montane coniferous forest, Meadows and seeps, Riparian scrub, Upper montane coniferous forest	4495	6990	No Photo Available
<i>Rorippa subumbellata</i>	Tahoe yellow cress	Brassicaceae	perennial rhizomatous herb	May-Sep	None	CE	G1	S1	1B.1	Lower montane coniferous forest, Meadows and seeps	6200	6250	No Photo Available
<i>Scutellaria galericulata</i>	marsh skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Sep	None	None	G5	S2	2B.2	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps	0	6890	 © 2021 Scot Loring
<i>Sidalcea multifida</i>	cut-leaf checkerbloom	Malvaceae	perennial herb	May-Sep	None	None	G3	S2	2B.3	Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland	5740	9185	No Photo Available
<i>Solidago lepida</i> var. <i>salebrosa</i>	Rocky Mountains Canada goldenrod	Asteraceae	perennial rhizomatous herb	Jul-Sep	None	None	G5T5	S1	3.2	Marshes and swamps, Meadows and seeps	3545	4560	No Photo Available
<i>Sphaeralcea munroana</i>	Munro's desert mallow	Malvaceae	perennial herb	May-Jun	None	None	G4	S1	2B.2	Great Basin scrub	6560	6560	No Photo Available

<u>Stellaria obtusa</u>	obtuse starwort	Caryophyllaceae	perennial rhizomatous herb	May-Sep(Oct)	None	None	G5	S4	4.3	Lower montane coniferous forest, Riparian woodland, Upper montane coniferous forest	490	7515	No Photo Available
<u>Stuckenia filiformis ssp. alpina</u>	northern slender pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	None	None	G5T5	S2S3	2B.2	Marshes and swamps	985	7055	 Dana York (2016)

Showing 1 to 47 of 47 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.0). Website <https://www.rareplants.cnps.org> [accessed 30 January 2022].

CONTACT US

Send questions and comments to rareplants@cnps.org.



Developed by
Rincon Consultants, Inc.

ABOUT THIS WEBSITE

[About the Inventory](#)
[Release Notes](#)
[Advanced Search](#)
[Glossary](#)

ABOUT CNPS

[About the Rare Plant Program](#)
[CNPS Home Page](#)
[About CNPS](#)
[Join CNPS](#)

CONTRIBUTORS

[The Calflora Database](#)
[The California Lichen Society](#)
[California Natural Diversity Database](#)
[The Jepson Flora Project](#)
[The Consortium of California Herbaria](#)
[CalPhotos](#)

Copyright © 2010-2022 [California Native Plant Society](#). All rights reserved.



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:
Project Code: 2022-0015595
Project Name: Pioneer Trail and Bridge Street Extension Project

March 04, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location 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, 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 U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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 Code 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

Project Code: 2022-0015595
Event Code: None
Project Name: Pioneer Trail and Bridge Street Extension Project
Project Type: Road/Hwy - New Construction
Project Description: Extend Pioneer Trail and Bridge Street to connect Tahoe Donner to downtown Truckee.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.33571835,-120.19637757423139,14z>



Counties: Nevada County, California

Endangered Species Act Species

There is a total of 3 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 Fisheries¹, 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.

Amphibians

NAME	STATUS
Sierra Nevada Yellow-legged Frog <i>Rana sierrae</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/9529	Endangered

Fishes

NAME	STATUS
Lahontan Cutthroat Trout <i>Oncorhynchus clarkii henshawi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3964	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

IPaC User Contact Information

Agency: Truckee town

Name: Joshua Boldt

Address: 128 Market Street, Suite 3E

City: Stateline

State: NV

Zip: 89449

Email joshua.boldt@ascentenvironmental.com

Phone: 5307212233

Appendix B

Photographs



Photo 1: Freshwater emergent wetland.



Photo 2: Trout Creek.



Photo 3: Trout Creek and associated riparian wetland.



Photo 4: Trout Creek.



Photo 5: Trout Creek riparian corridor.



Photo 6: Seasonal wetland.



Photo 7: Jeffrey pine forest.



Photo 8: Montane chaparral.