

**BIOLOGICAL INVENTORY FOR THE
NEVADA CITY TECHNOLOGY CENTER
HOUSING PROJECT
SECTION 13, TOWNSHIP 16 NORTH, RANGE 8 EAST, MDM.
NEVADA CITY USGS QUADRANGLE,
NEVADA COUNTY, CALIFORNIA**

May 10, 2010

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INTRODUCTION

This report includes a biological inventory for the proposed subdivision of the ± 12.76-acre Nevada City Tech Center Housing Project, APN 05-190-45 (Figure 1. Site Map with Ephemeral Drainages). The property currently is undeveloped; current land use is U-DA. Access to the property is via Providence Mine Road.

The biological inventory includes a description of the plants and wildlife found within the proposed project area, and discussions of other waters of the United States, special-status species, sensitive plant communities, and other important biological resources that could potentially occur there. Also, the report discusses in a general fashion the potential impacts to biological resources of any future proposed projects, as well as mitigation measures to minimize or avoid these potential impacts.

SITE DESCRIPTION

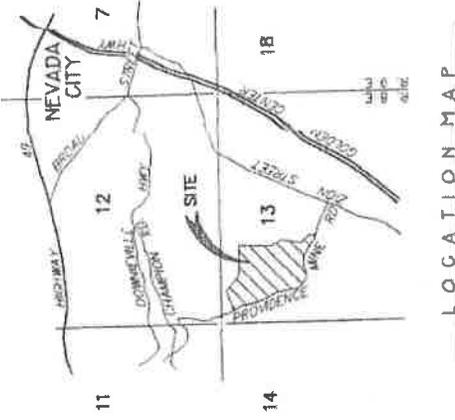
The Nevada City Tech Center Housing Project site consists of one parcel situated directly to the east of Providence Mine Road. The site is approximately ±12.76-acres in size and ranges from 2,545 feet to 2,775 feet above mean sea level (MSL).

The area surrounding the site consists of rural housing and open lands. Directly to the east is located the Nevada City Tech Center, the Grass Valley Group and other commercial developments extending east on Providence Mine Road to Zion Street. The site is situated in a coniferous forest with one major ephemeral drainage course bisecting the property from east to west, two smaller ephemeral drainages along the southwest, and a partial roadside ditch (undeveloped) running adjacent to Providence Mine Road. A small seasonal wetland is located at a low point along the west portion of the property where the drainages converge prior to flowing off-site or continuing in an undeveloped roadside ditch.

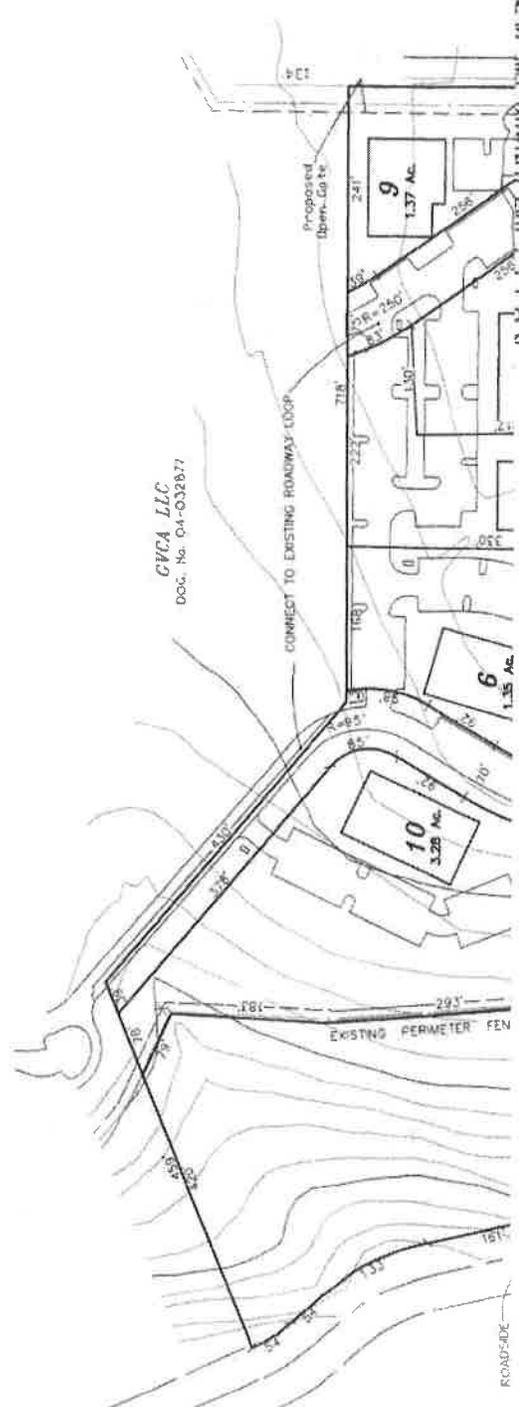
Historically, the land was a working hardrock mine, probably part of the large mining operation known as Providence Mine. There is evidence throughout the site of mine workings and mining swales. The old growth coniferous forest was cleared, most likely for the use of wood as a source of fuel for the operation of mining activities. Today it is composed of second or third successional trees.

PROJECT DESCRIPTION

A site plan has not been finalized for this project; the current application is for zoning only. However, if this project goes forth the proposed project design will be to provide housing both for Nevada City Tech employees and for the community at large. If rezoned, the proposed project would include 59 single-and multi-family housing units, as well as interior "calming" roadways, parking areas, and planting areas. Pathways



LOCATION MAP
SCALE: 1" = 2000'



NOTES

- PROPERTY PROFILE
A.P.N. 05-190-45
AREA: 44.31 AC.
ZONING: U-DA
USE: VACANT
- COMMUNITY SERVICE INFORMATION
SCHOOL DISTRICTS: NEVADA JOINT UNION HIGH SCHOOL DIST, NEVADA CITY ELEMENTARY SCHOOL DISTRICT, NEVADA CITY CONSOLIDATED FIRE DISTRICT
FIRE PROTECTION: A.T. #1
TELEPHONE: PACIFIC GAS AND ELECTRIC
POWER: CITY OF NEVADA CITY
SEWAGE DISPOSAL: NEVADA IRRIGATION DISTRICT
WATER: CITY OF NEVADA CITY
- SEE APPROVED SITE PLAN PREPARED BY DAGGETT DESIGNS.
ON FILE WITH THE CITY OF NEVADA CITY.
- BUILDING, PARKING, AND LOT LINES MAY BE MODIFIED SLIGHTLY TO PRESERVE SELECTED TREES, AND TO MEET USER REQUIREMENTS.
- SEE RECORDED DEVELOPMENT AGREEMENT FOR PROJECT DEVELOPMENT PERFORMANCE STANDARDS.
- THE DEVELOPMENT IS SUBJECT TO A RECREATIONAL ACCESS, UTILITY, AND PARKING AGREEMENT WITH ADJOINING LANDS.

BY THE CITY OF NEVADA CITY ON FEBRUARY 14, 2006.
THE PURPOSE OF THIS APPLICATION IS TO OBTAIN
APPROVAL TO ALLOW INDIVIDUAL BUSINESS CONDOMINIUMS
TO BE SOLD IN EACH PROJECT BUILDING.

CONDOMINIUM
TENTATIVE FINAL MAP
F.O.R.
**NEVADA CITY
TECHNOLOGY CENTER**
WITH A PORTION OF
SECTION 13, T. 16 N., R. 8 E., M.D.M.
WITHIN THE INCORPORATED TERRITORY OF THE CITY OF
NEVADA CITY
SCALE: 1" = 100'
CALIFORNIA
AUGUST, 2006
NEVADA CITY ENGINEERING, INC.
305 COYOTE STREET • P.O. BOX 1437 • NEVADA CITY • CALIFORNIA

Figure 1. Site Map with Ephemeral Drainages

through the housing area connecting to Nevada City Tech Center and City streets are also anticipated, with development standards to be created by the City of Nevada City.

METHODS

Pre-field Survey

The purpose of the pre-field investigation was to review existing information and to prepare a list of special status species with potential to occur in the vicinity of the project area. Sources of information included are as follows:

- *California Natural Diversity Data Base* (CNDDDB April 2010) for the Nevada City quad.
- *Federal Endangered and Threatened Species that occur in or may be affected by Projects in the Nevada County USFS 7.5 minute Quadrangle*, updated December 1, 2009.
- *California Native Plant Society Inventory of Rare and Endangered Plants of California* (1994).
- *Jepson Manual: Higher Plants of California* (Hickman 1995).
- *California Wildlife Habitat Relationships System* (California Department of Fish and Game version 8.0).
- *Nevada County Natural Resources Report: A Scientific Assessment of Watersheds and Ecosystems* (Beedy and Brussard 2002).

FIELD SURVEYS

Plants

Special-status plant species surveys were performed in April 2010. Surveys were conducted in a manner to identify any rare or endangered species that may be present during the blooming period. Survey protocols that were followed include Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities, Department of Fish and Game, December 9, 1983 (Revised May 8, 2000) and Guidelines for Conduction and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants, USFWS, 1996.

The surveys were conducted when most rare or endangered species that could occur in habitats at the site would be evident and identifiable. The surveys were floristic in nature and not based on the occurrence of habitat or other physical features. The surveys were conducted using systematic field techniques in all habitats of the site to ensure a reasonably thorough coverage of potential impact areas. A meandering pattern was walked through each habitat to ensure that all areas were viewed. All plants at the site were identified to the level necessary to ascertain whether they were special status species.

Wildlife

A wildlife habitat assessment was performed in coordination with the plant surveys. Surveys were conducted to determine if habitats supported special-status animal species and raptor nest searches were performed during these surveys. Protocol level surveys for potentially occurring special-status animals were not conducted. The determination of presence for animal species possibly occurring was based on habitat assessments, literature review, and queries through CNDDDB.

RESULTS

Natural Communities and Habitats

Where possible the vegetation has been classified according to the California Natural Diversity Data Base's Descriptions of the Terrestrial Natural Communities of California (Holland, 1996). The California Natural Diversity Database (CNDDDB) is a computerized inventory of the locations of populations of rare and threatened plants, animals and natural communities in California. These elements of natural diversity are monitored by CNDDDB to assure that California's rich biological heritage is adequately represented in their inventory. A list of the flora observed on site during the special status plant species surveys is included in Appendix A. A list of wildlife observed on site during the surveys is included in Appendix B. Site photographs are enclosed as Figure 2.

The majority of the site has been subject to modifications from the historical use of the site for hardrock mining. The site consists of several ephemeral drainages, a wetland, Western Ponderosa Pine Forest, and Non-Native Annual Grasses and Forbs.

Westside Ponderosa Pine Forest

The Ponderosa Pine Forest historically featured open park-like stands with scattered and diversified understory of trees and shrubs growing beneath 150' to 200' conifers (Holland 1986 from Beedy and Brussard 2002). Frequent fires cleaned out the needle accumulation that collected under the canopy and eliminated invading seedlings (Holland 1986 from Beedy and Brussard 2002). However today, due to fire suppression and overstory removal, these formerly open stands have been replaced by thickets of early-to-mid successional ponderosa pine forest mixed with oaks, firs, and incense cedars that have become established without occasional fires (Holland 1986 from Beedy and Brussard 2002).

The coniferous trees are approximately $80 \pm$ feet tall; canopy cover varies from 25% to 75%. Tree composition is Pacific Ponderosa pine (*Pinus ponderosa*), with some incense cedar (*Calocedrus decurrens*), Douglas fir (*Pseudotsuga menziesii*), madrone (*Arbutus menziesii*), and California black oak (*Quercus kelloggii*).

Figure 2. Site Photographs

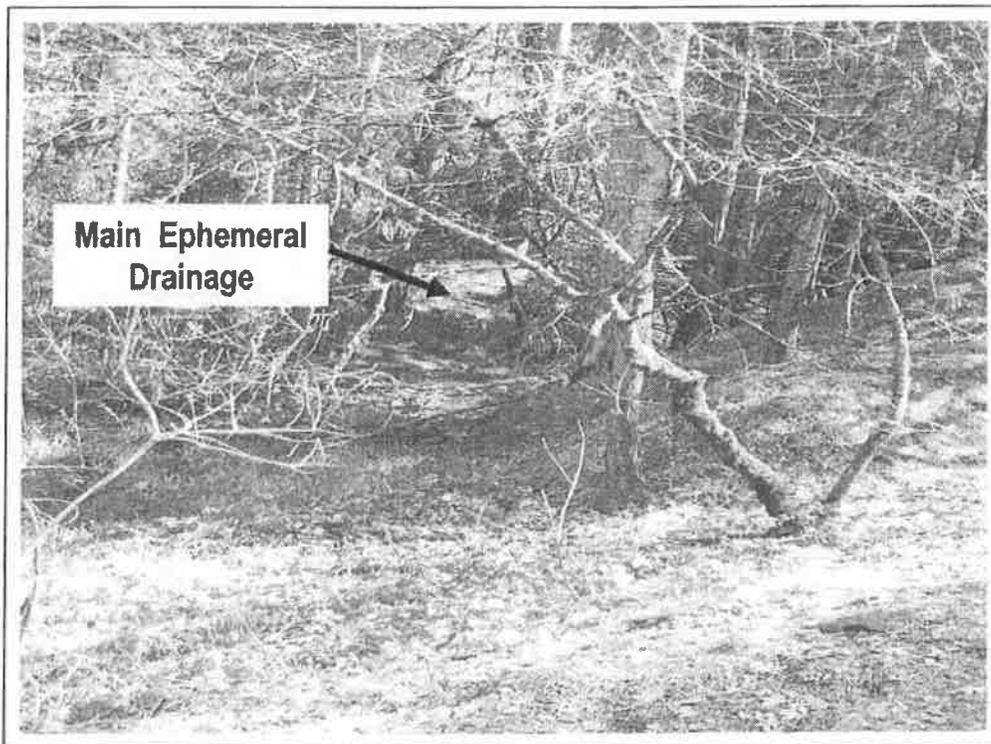
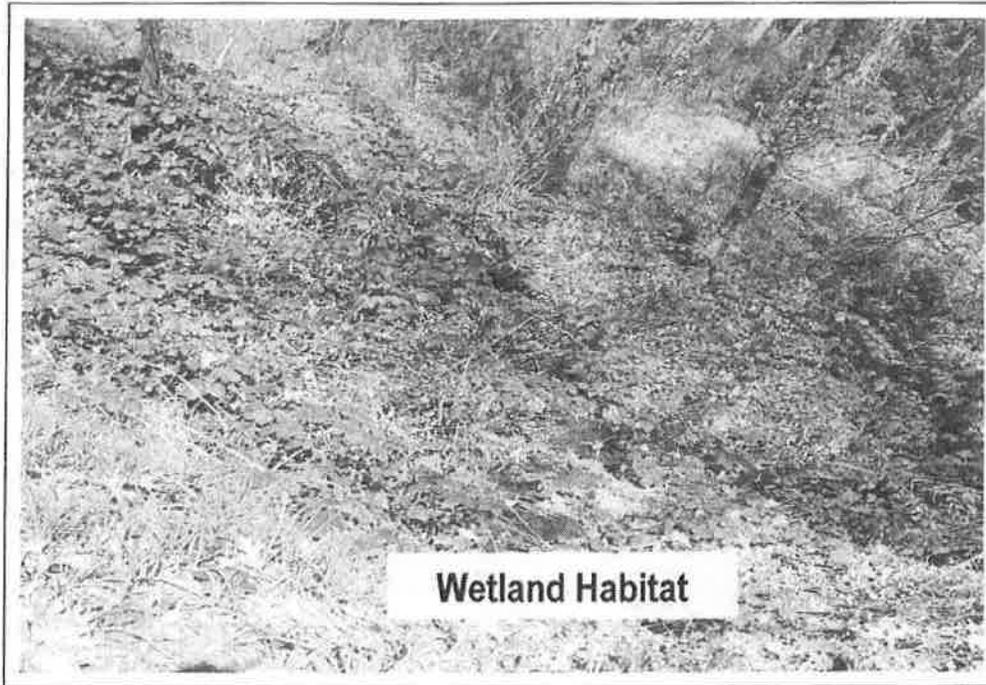
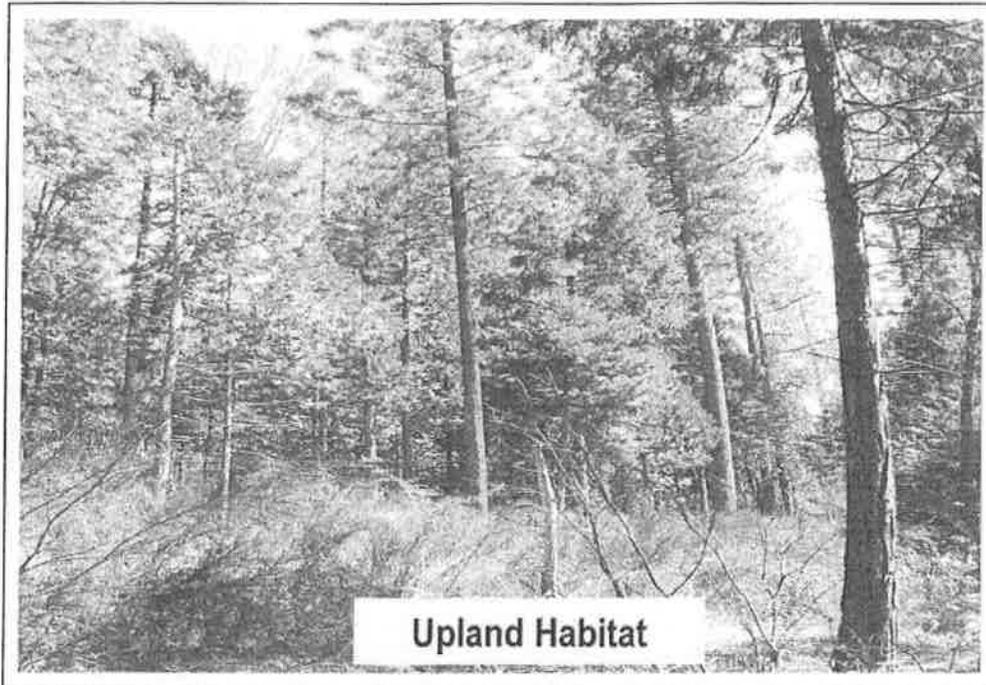


Figure 2. Site Photographs



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SITE: NEVADA CITY TECH CENTER PROJECT
ITEM: Site Photos
DATE: APRIL 2010 PLATE: 2 of 2

The under story is composed of native species poison oak (*Toxicodendron diversilobum*), mountain misery (*Chamaebatia foliolosa*), and deerbrush (*Ceanothus integerrimus*). These native species are often indicators of earlier disturbances, such as fire and logging (Beedy and Brussard 2002). Non-native species found within this community are Himalayan blackberry (*Rubus discolor*) and Scotch broom (*Cytisus scoparius*). Scotch broom has formed dense thickets throughout this forested area, and is considered a “pest” plant because it often gains a foothold on disturbed soils and spreads quickly in adjacent habitats.

Non-native Annual Grasses and Forbs

Non-native grasses occur throughout the project site. They are not isolated to one specific plant community. Non-native grasses’ phenology is such that they are able to out compete most native grasses and forbs. They are mostly prevalent in the open sunny areas and are dominated by the common non-native species.

Potential Waters of the U.S.

Seasonal wetlands are defined by the ACOE (*Federal Register* 1982 from the Wetland Training Institute, Inc. 2006 ed.) and the Environmental Protection Agency (EPA) (*Federal Register* 1980 from the Wetland Training Institute, Inc. 2006 ed.) as those areas that are inundated or saturated by surface or ground water 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. Wetlands generally include swamps, marshes, bogs, and similar areas.

An ephemeral drainage (tributary) has water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow (Wetland Training Institute 2006).

The several drainage features discussed below appear to be ephemeral only. Surface water flow enters the project site via two culverts located along the western boundary of the site. The seasonal flow route is southwest off site; flow exits at the mid-west portion of the project site via a culvert and enters an open drainage ditch for 0.5 miles before emptying into Deer Creek. Deer Creek eventually empties into the Yuba River which flows into the Feather River; at this juncture the Feather River is considered Jurisdictional Navigable Waters of the U.S.

Seasonal Wetland Habitat

The major ephemeral drainage flows from the eastern to the western boundaries and supports a seasonal wetland habitat where the drainages converge prior to flowing offsite. The wetland habitat is dominated by non-native, invasive Himalayan blackberry. Invasive, exotic plants are defined as plants which are able to proliferate and aggressively

alter or displace indigenous biological communities (Schwartz, et al. 1996 from Beedy and Brussard 2002). Within Nevada County Himalayan blackberry is included as one of the most widespread invasive non-native plants. Also present were some mature/emerging willow (*Salix lasiolepis*), and annual grasses were observed within the wetland but were not identified since they were only beginning to germinate during the surveys.

Ephemeral Drainages

There are three ephemeral drainages located within the project area. The major drainage bisects the property flowing from the east to the west. During storm events this drainage conveys water, however shortly after such events, the drainage subsides. Most water flows are from roadside ditches situated to the southeast of the property that convey water through a series of roadside ditches and culverts. During the April 2010 surveys there was no riparian/wetland vegetation present along the embankments of the major drainage. Most of the embankments are either bare or layered with forest "duff."

The two smaller ephemeral drainages occur on the west side of the property. These two drainages occur where off-site culverts and a small detention pond convey storm water onto the site. Vegetation within these drainages primarily consists of blackberry and emergent willows.

Roadside Ditch

The roadside ditch is not an improved ditch; it consists primarily of bare soil with no identifiable bed and bank but runs adjacent to Providence Mine Road where rainfall collects along the "shoulder" of the road. The offsite detention pond also drains along side the roadway entering the project site via two culverts. Water flow is sufficient along this shoulder to support sparse riparian habitat consisting of immature willow, California sycamore (*Platanus racemosa*) and blackberry.

SPECIAL STATUS SPECIES

Special-status species were considered for this analysis based on field survey results, a review of the California Natural Diversity Database (CNDDDB), CNPS literature, and database information provided by the U. S. Fish and Wildlife Service (Nevada City 7 ½ Minute Quads database April 2010). No special status species were observed during the surveys. For a complete list of special status plants refer to Appendix C, and for special status wildlife refer to Appendix D.

Special Status Plant Species

The following description presents the three special status plant species that have the potential to occur at the site based on observed habitat types. The other species considered require special habitats such as marsh or swamp or specialized soils which do not occur within the project area.

Brandegee's Clarkia (*Clarkia biloba* ssp. *brandegeae*) CNPS 1B.2

Brandegee's clarkia is an annual species occurring in chaparral and cismontane woodlands and typically found within roadcuts. It blooms from May to July. Threats to this species are road maintenance and non-native species. Usually it is found in small colonies and would have been easily observed, even without flowers if it had been present when the April 2010 surveys were conducted.

Butte County Fritillary (*Fritillaria eastwoodiae*) CNPS 3.2

A CNDDDB search revealed there is one listed occurrence of Butte County fritillary within the Nevada City quad. This species has marginal potential to occur on site, since there are red clay soils located in the coniferous forest with dry slopes. However, historical site disturbances have degraded this potential natural habitat.

Special Status Wildlife

The wildlife species addressed below have a very low to no potential to be present within the study area. The Fish and Wildlife Service (FWS) species listing for this area includes the California Red-legged Frog, and CNDDDB lists the Foothill Yellow-legged Frog. These two species are addressed below.

California Red-legged Frog (*Rana aurora draytonii*) – Federal Threatened; State Species of Concern

The current range of the California red-legged frog (CRLF) has been greatly reduced, with most populations occurring along the coast from Marin County to Ventura County, and in several isolated locations in the foothill region of the west slopes of the Sierra Nevada Mountains. Current information suggests that CRLF has been extirpated from most of its range within the Sierra Nevada Mountains.

Adult CRLF prefer dense, shrubby or emergent riparian vegetation near deep (more than 2.3 feet), still or slow moving water, especially where dense stands of overhanging willow and an intermixed fringe of cattail occur. This subspecies breeds from November through April (Jennings and Hayes 1994). Upland areas provide important sheltering habitat during winter when CRLF are known to aestivate in burrows and leaf litter.

Habitat assessments for CRLF were based on habitat requirements as described in the USFS, February 18, 1997 document on *California red-legged frog ecology and distribution* (USFWS 1997). Within the study area there are no suitable aquatic features. To be considered as having the primary constituent elements for CRLF, an area must include two or more suitable breeding locations, a permanent water source, associated uplands surrounding these water bodies up to 300' from the water's edge, all within 1.25

miles of one another and connected by barrier-free dispersal habitat that is at least 300' in width (USFWS 2002).

The pattern of disappearance of California red-legged frogs in California is associated with a loss of habitat, construction of roadways and large reservoirs, exotic predators, and stream channelization projects. Habitat loss and alteration, combined with over-exploitation, introduction of exotic predators, urbanization and its associated roadways, large reservoirs, and stream channelization projects were the primary factors causing population declines. Within the project area there are no suitable aquatic features for the CRLF considering all drainages only support storm water runoff.

Foothill Yellow-legged Frog (*Rana boylei*) Federal Candidate; State Species of Concern

The foothill yellow-legged frog (FYLF) is found in streams at low elevations in the Sierra Nevada and coastal mountains. It is found in a variety of habitats including valley-foothill hardwood woodlands, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadows. Typical habitat is fast-moving waterways that decline substantially in midsummer, which may enable their tadpoles to develop in the absence of most predatory fish. Foothill habitat for the yellow-legged frog is typically well-illuminated sections of the creeks in forest or brushland, and with sparse vegetation along the streamside.

Yellow-legged frog requires perennial streams or sufficient water during the dry season months for the tadpoles to develop. FYLF is unlike most other ranid frogs in California, as this species is rarely encountered, even on rainy nights, far from permanent water (*California Wildlife Habitat Relationships System* database version 8.0).

Similar habitat features are required for this species as with the California red-legged frog; since breeding habitat and associated summer refugia are not present on-site, overall habitat quality for FYLF is marginal at best, and potential to occur on site is extremely low to no potential. There are three occurrences of FYLF within the Nevada City quad. These occurrences are approximately 7.5 air miles from the project site and do not occur within the same watershed as the project location. Also the on-site drainages at best would only provide a temporary transit waterway, since water flows only occur during and temporarily after rain events.

REGULATORY CONTEXT

A number of state and federal agencies, including the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), U.S. Fish and Wildlife Services (USFWS), and the California Department of Fish and Game (CDFG) have regulatory authority over special status species and sensitive habitats.

The regulatory aspects include:

- **U.S. Army Corps of Engineers:** Section 404 of the Clean Water Act requires approval prior to discharging dredge or fill material into the waters of the United States. Waters of the United States includes essentially all surface waters such as all navigable waters and their tributaries, all interstate waters and their tributaries, all wetlands adjacent to these waters, and all impoundments of these waters. Wetlands are areas characterized by growth of wetland vegetation (bulrush, cattails, rushes, sedges and willows) where the soil is saturated during a portion of the growing season or the surface is flooded during some part of most years. Wetlands generally include swamps, marshes, bogs and similar areas.
- **U.S. Fish and Wildlife Service:** The USFWS has jurisdiction over species that are formally listed as threatened or endangered under the Federal Endangered Species Act (FESA). The Endangered Species Act provides broad protection for species of fish, wildlife and plants that are listed as threatened or endangered in the U.S. or elsewhere. Provisions are made for listing species, as well as for recovery plans and the designation of critical habitat for listed species. The Act outlines procedures for federal agencies to follow when taking actions that may jeopardize listed species, and contains exceptions and exemptions.
- **California Department of Fish and Game:** It is state policy to conserve, protect, restore and enhance any endangered or threatened species and its habitat. The CDFG has jurisdiction over species that are formally listed as threatened or endangered under the California Endangered Species Act (CESA). The Endangered Species Act provides broad protection for species of fish, wildlife and plants that are listed as threatened or endangered in the state. In addition to CESA, the California Native Plant Protection Act (NPPA) provides protection to endangered and rare plant species. The CDFG also maintains an informal list of species of special concern to be considered as well.
- **California Native Plant Society:** CNPS is a non-profit group dedicated to preserving the state's native flora. It has developed lists of plants of special concern in California (online version 2005), including List 1A. Presumed Extinct in California (no threat ranks), List 1B. Rare or Endangered in California and Elsewhere, List 2. Rare or Endangered in California. More common Elsewhere, List 3. Need More Information, and List 4. Plants of Limited Distribution. Included within List 1B to List 4 are Threat Ranks which are included with the descriptions in Table 1 of this report.
- **Regional Water Quality Control Board:** Under Section 401 of the Clean Water Act, projects that apply for a Corps permit for discharge of dredge or fill material, and projects that qualify for a Nationwide Permit, must obtain water quality certification from the RWQCB confirming that the project will uphold state water quality standards.

DISCUSSION OF IMPACTS AND RECOMMENDED MITIGATION

Significance Criteria

The determination of significance of impacts to biological resources involves an evaluation of the context in which the impact may occur and the intensity and extent of the impact's effect.

Potential direct and indirect impacts to the biological resources were evaluated with respect to mandatory findings of significance of Section 15065 of CEQA and Appendix G of the State CEQA Guidelines. In accordance with these Guidelines a project's effect on biological resources would be considered significant if the project results in:

- Alteration of unique characteristics of the area, such as sensitive plant communities and habitats (i.e. wetlands, riparian habitats).
- Adverse impacts to special-status species, including species identified as candidate and/or sensitive species.
- Adverse impacts to important or vulnerable resources as determined by scientific opinion or resource agency concerns (i.e. special status habitats, e.g. wetlands).
- Interference with migratory routes.

Impacts and Mitigation Measures If Construction Goes Forward In The Future

Direct Impacts to Waters of the U.S.

The proposed project will avoid impacts to the main drainage course that bisects the project site as well as the wetland. The Nevada City ordinance setback for seasonal drainages is a 25 foot non-disturbance buffer, and a 25 foot non-disturbance buffer for wetlands. Construction activities may impact the two smaller drainages and non-improved roadside ditch. Prior to these activities, an ACOE permit and verification will be required, and all impacts will need to be evaluated for mitigation by a qualified wetland specialist and ACOE.

If ACOE determines to these drainages are "waters of the United States," any direct impacts will be coordinated with the United States Army Corps of Engineers (ACOE) through a Nationwide Permit/Individual Permit and a Streambed Alteration Agreement from CDFG. Typically a Nationwide Permit is required for less than one-half acre of impacts to wetland habitats, and an Individual Permit for impacts greater than one-half acre. Usual mitigation funds for Nevada County for the lost functions and values to the ephemeral drainages will be made through an In-Lieu Fee paid to the National Fish and Wildlife Foundation, a non-profit agency that manages mitigation funds. The fees are used to fund local (within the same watershed unless otherwise authorized) wetland and stream creation and restoration projects.

Mitigation for Construction Activities

Prior to construction, the project site will provide a secure development barrier around the protected drainage and wetland. There are no anticipated changes to surface hydrology from development that would adversely affect these two features.

During construction activities, the drainage way and wetland will be protected with the installation of storm wattles, silt fencing or other sediment catching materials, along with orange construction fencing to prevent disturbance of these areas. Adequate erosion and sediment controls (i.e. storm wattles) will be installed around the periphery of the drainage and wetland, and will be routinely managed to prevent disturbances to said areas.

To avoid sediment or other materials from entering these habitats if there is a build-up of soils or other materials along the storm wattles, these materials will be graded away from the protected areas routinely and/or prior to a storm event.

Water Quality Impacts

Sediment transport from construction activities to the drainage way and downstream aquatic habitat including Deer Creek can have deleterious effects on aquatic organisms in the aquatic habitats and result in violation of State and Federal water quality regulation.

Mitigation measures include assurances that best management practices are adopted in order to minimize the amount of sediment leaving the site during construction activities. In addition, if the installation of a culvert(s) across the tributaries is required, it should occur during the dry season, typically July through October. If culvert placement is required this will require State and Corps permitting.

Prior to initial construction activities all barriers, storm wattles, silt fencing or other sediment catching materials should be installed around the drainage course and wetland. A staging area, upland away from these sensitive resources, should be established for all construction equipment and refueling operations to avoid pollutants from entering any sensitive habitats.

If required, a general permit for storm water discharges from construction activities will be obtained through the RWQCB and a Storm Water Pollution Prevention Plan for Construction Activities will be prepared and implemented.

Impacts to Nesting Raptors, Owls, Migratory Birds and Bats

The potential exists for impacts to raptors and other migratory birds which are protected under the Migratory Bird Treaty Act to occur on, or in the vicinity of the site through the construction activities of tree and vegetation removal, ground disturbances, heavy equipment use, and various other noises that could impact nesting migratory birds.

Prior to the start of any construction or grading activity between March 1 and September 30, pre-construction surveys for nesting raptors shall be conducted pursuant to California Department of Fish & Game and the United States Fish & Wildlife requirements. The studies shall be completed no later than 7 days prior to commencement of site work. If a legally-protected species nest is located in a tree within 500 feet of the project site, the project will be delayed until an onsite biological monitor can determine if the construction or grading activity will result in an impact to the nesting raptor. If the safety of the nest cannot be insured, all construction or activities shall cease until chicks leave the nest as determined by the onsite biological monitor.

Impacts to Trees

Although a timber harvest plan has not been prepared, it is assumed some trees within the coniferous forest will be removed. If building envelopes cannot be created to avoid impacts to trees, then trees that are to remain, especially native oaks should be cordoned off well outside of the drip line prior to construction. This will ensure the protection of their root systems from grading and soil compaction. All slash and other debris should be removed in a timely manner from the site.

REFERENCES

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Appendix A: Flora of the Nevada City Tech Center Housing Project

Family	Scientific Name	Common Name	Native = N Introduced = I
Apiaceae	<i>Daucus carota</i>	Carrot Family Queen Anne's lace	I
	<i>Scandix pecten-veneris</i>	Shepherd's needle	I
Asteraceae	<i>Gnaphalium luteo-album</i>	Sunflower Family Weedy cudweed	I
	<i>Hieracium albiflorum</i>	White hawkweed	N
Betulaceae	<i>Corylus cornuta</i> var. <i>californica</i>	Birch Family	
		Hazelnut	N
Brassicaceae	<i>Brassica rapa</i>	Mustard Family	
		Field mustard	I
Caprifoliaceae	<i>Lonicera hispidula</i>	Honeysuckle Family Honeysuckle	N
Cupressaceae	<i>Calocedrus decurrens</i>	Cypress Family Incense cedar	N
Ericaceae	<i>Arbutus menziesii</i> <i>Arctostaphylos viscida</i> ssp. <i>viscida</i>	Heath Family	
		Madrone	N
		Sticky whiteleaf manzanita	N
Fabaceae	<i>Cytisus scoparius</i>	Legume Family Scotch broom	I
Fagaceae	<i>Quercus berberidifolia</i> <i>Quercus kelloggii</i>	Oak Family	
		Scrub oak Black oak	N N
Grossulariaceae	<i>Ribes roezii</i> var. <i>roezii</i>	Gooseberry Family Sierra gooseberry	N
Iridaceae	<i>Iris</i> sp.	Iris Family Iris	N
Lilaceae	<i>Chlorogalum pomeridianum</i>	Lily Family Soap plant	N
Papaveraceae	<i>Dicentra Formosa</i>	Poppy Family Pacific bleeding heart	N
Pinaceae	<i>Pinus ponderosa</i> <i>Pseudotsuga menziesii</i>	Pine Family	
		Ponderosa pine Douglas fir	N N
Poaceae		Grass Family	

	<i>Cynosurus echinatus</i>	Hedgehog dogtail-grass	I
	<i>Bromus diandrus</i>	Rip-gut brome	I
Plantaginaceae		Plantain Family	
	<i>Plantago lanceolata</i>	English plantain	I
Platanaceae		Plane Tree, Sycamore Family	
	<i>Platanus racemosa</i>	Western sycamore	N
Polygonaceae		Buckwheat Family	
	<i>Polygonum arenastrum</i>	Common knotweed	I
	<i>Rumex crispus</i>	Curly dock	I
Portulacaceae		Purslane Family	
	<i>Claytonia perfoliata</i> ssp. <i>perfoliata</i>	Miner's lettuce	N
Rhamnaceae		Buckthorn Family	
	<i>Ceanothus integerrimus</i>	Deerbrush	N
Rosaceae		Rose Family	
	<i>Chamaebatia foliolosa</i>	Mountain misery	N
	<i>Rubus discolor</i>	Himalayan blackberry	I
	<i>Rubus leucodermis</i>	Blackcap raspberry	N
Rubiaceae		Madder Family	
	<i>Galium porrigens</i> var. <i>tenuis</i>	Climbing bedstraw	N
Salicaceae		Willow Family	
	<i>Salix</i> sp.	Willow	N
Scrophulariaceae		Figwort Family	
	<i>Verbascum thapsus</i>	Mullein	I

Reference: *The Jepson Manual, Higher Plants of California* (Hickman 1993)

**APPENDIX B: Wildlife Observed at the
Nevada City Tech Center Housing Project**

Birds Observed

Common Name	Scientific Name
Anna's hummingbird	<i>Calypte anna</i>
Hairy woodpecker	<i>Picoides villosus</i>
Pacific-slope flycatcher	<i>Empidonax difficilis</i>
Cassin's vireo	<i>Vireo cassinii</i>
Steller's jay	<i>Cyanocitta stelleri</i>
Bushtit	<i>Psaltriparus minimus</i>
Red-breasted nuthatch	<i>Sitta Canadensis</i>
Brown creeper	<i>Certhia Americana</i>
Yellow warbler	<i>Dendroica petechia</i>
Orange-crowned warbler	<i>Vermivora celata</i>
Black-headed grosbeak	<i>Pheucticus melancephalus</i>
Spotted towhee	<i>Pipilo maculatus</i>
California towhee	<i>Pipilo crissalis</i>
Dark-eyed junco	<i>Junco hyemalis</i>
Brown-headed cowbird	<i>Molothrus ater</i>
Purple finch	<i>Carpodacus purpureus</i>

Reference Sources: 2010 The American Ornithologists' Union and *Field Guide to the Birds of North America* (National Geographic Society 2000)

Animals Observed

Common Name	Scientific Name
Western gray squirrel	<i>Sciurus griseus</i>

APPENDIX C: SPECIAL STATUS PLANT SPECIES
NEVADA CITY QUAD
NEVADA CITY TECH CENTER PROPERTY

SCIENTIFIC/ COMMON NAME	COMMUNITIES	FEDERAL STATE CNPS	POTENTIAL TO OCCUR WITHIN PROJECT SITE
<i>Clarkia biloba</i> ssp. <i>brandegeae</i> Brandegee's clarkia	Chaparral, cismontane woodland. Micro: often in roadcuts. Blooming May - July	None None 1B.2	Potential habitat, however this species was not observed during the surveys.
<i>Didymodon norrisii</i> Norris' beard moss	Cismontane woodland, lower montane coniferous forest. Micro: moss from intermittently mesic sites; on rocks.	2.2	No potential: requires perennial waters.
<i>Fritillaria eastwoodiae</i> Butte County fritillary	Chaparral, cismontane woodland, lower montane coniferous forest. Micro: usually on dry slopes but also found in wet places; soils can be serpentine, red clay, or sandy loam.	3.2	Potential habitat, however this species was not observed during the surveys.
<i>Lewisia cantelovii</i> Cantelow's lewisia	Broadleaf upland forest, lower montane coniferous forest, cismontane woodland, chaparral. Micro: mesic rock outcrops and wet cliffs, usually in moss or clubmoss; on granitics or sometimes on serpentine.	1B.2	No Potential: No specialized habitat or soils occurs within the project area.
<i>Mielichhoferia elongate</i> Elongate copper moss	Cismontane woodland, commonly called "copper moss." Micro: moss growing on metamorphic rock; usually vernal mesic.	2.2	No potential; no mesic habitat within project site.
<i>Rhynchospora capitellata</i> Brownish beaked- rush	Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest. Micro: mesic sites. Blooming July - August	None None 2.2	No potential; no mesic habitat within project site.
<p>* STATUS</p> <p>Endangered (FE) Any species which is in danger of extinction throughout all or a significant portion of its range.</p> <p>State: Endangered (CE) A native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.</p>	<p>California Native Plant Society Rare and Endangered Plant Lists</p> <p>1A. Presumed Extinct in California</p> <p>1B. Rare or Endangered in California and elsewhere</p> <p>1B.1 - Seriously Threatened in California</p> <p>1B.2 - Fairly Threatened in California</p> <p>1B.3 - Not Very Threatened in California</p> <p>2. Rare or Endangered in California, more common elsewhere</p> <p>2.1 - Seriously Threatened in California</p> <p>2.2 - Fairly Threatened in California</p> <p>2.3 - Not Very Threatened in California</p> <p>3. Need More Information (threat ranks not always present)</p> <p>3.1 - Seriously Threatened in California</p> <p>3.2 - Fairly Threatened in California</p> <p>3.3 - Not Very Threatened in California</p> <p>4. Plants of Limited Distribution (threat ranks not always present)</p> <p>4.2 - Moderate Degree of Threats</p> <p>4.3 - Low Degree of Threats or Unknown Threats</p>		

APPENDIX D: SPECIAL STATUS ANIMAL SPECIES

NEVADA CITY QUAD

NEVADA CITY TECH CENTER PROPERTY

SCIENTIFIC NAME	COMMON NAME	FEDERAL/CDFG STATUS	HABITAT TYPES	POTENTIAL TO OCCUR WITHIN PROJECT SITE
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	FT/--	Associated with its host plant the blue elderberry shrub (<i>Sambucus mexicana</i>).	No potential; no host plants found within the project boundaries.
<i>Hypomesus transpacificus</i>	Delta smelt	FT/ST	River and stream tributaries to the Sacramento River Basin.	No potential: no permanent water source on-site with connectivity to the confluence of the Sacramento & Feather Rivers where this species (larva) have been found.
<i>Oncorhynchus mykiss</i>	Central Valley steelhead and critical habitat	FT/--	Populations in the Sacramento and San Joaquin Rivers and their tributaries.	No potential: no permanent water source on-site with connectivity to the confluence of the Sacramento & Feather Rivers where this species (larva) have been found.
<i>Oncorhynchus Tshawytscha</i>	Central Valley spring-run Chinook salmon	FT/--	Adult numbers dependent on pool depth and volume, amount of cover, and proximity to gravel. Water temperatures > 27° C lethal to adults.	No potential: no permanent water source on-site with connectivity to the confluence of the Sacramento & Feather Rivers where this species (larva) have been found.
<i>Oncorhynchus Tshawytscha</i>	Winter-run Chinook salmon, Sacramento River	FE/--	Sacramento River below Keswick Dam. Spawning in Sacramento River but not in tributaries. Micro: requires cold water over gravel bed with water temperatures between 6 and 14° C for spawning.	No potential: no permanent water source on-site with connectivity to the confluence of the Sacramento & Feather Rivers where this species (larva) have been found.
<i>Phrynosoma coronatum (frontale population)</i>	Coast (California) homed lizard	FT/SSC	Frequents a wide variety of habitats, most common in lowlands along dandy washes with scattered low bushes. Micro: open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	No suitable habitat present within the project boundaries
<i>Rana boylei</i>	Foothill yellow-legged frog	--/SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Micro: need at least some cobble-sized substrate for egg-laying, need at least 15 weeks to attain metamorphosis.	No suitable habitat present within the project boundaries

<i>Rana aurora draytonii</i>	California red-legged frog	FT/-/SSC	Lowlands and foothills in or near permanent sources of deep water with dense shrubby or emergent riparian vegetation. Micro: requires 11-20 weeks of permanent water for larval development, must have access to estivation habitat.	No suitable habitat present within the project boundaries
Federal Status Definitions			State Status Definitions	
<p>Endangered (FE) Any species which is in danger of extinction throughout all or a significant portion of its range.</p> <p>Threatened (FT) Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.</p> <p>Candidate (FC) Taxa for which the Service currently has sufficient information on biological vulnerability and threats on hand to support the issuance of a proposed rule to list but issuance of the proposed rule is precluded. Only those species for which there is enough information to support a listing proposal will be called "candidates." These were formerly known as "Category 2 Candidates." There are species for which the Service does not have enough scientific information to support a listing proposal. Both Category 2 and Category 3 no longer exist. The former Category 3 was a mix of non-candidate species either thought to be extinct (3A), taxonomically invalid (3B), or too widespread to be considered at risk (3C).</p> <p>Species of Concern (C1) (FSC) Former Category 1 Candidate now considered a "Species of Concern." Taxa which should be given consideration during planning for projects.</p> <p>Species of Concern (C2) (FSC) Former Category 2 Candidate now considered a "Species of Concern." Taxa which should be given consideration during planning for projects.</p> <p>Proposed (FP) Taxa for which a general notice has been published in a local newspaper and a proposed rule for listing has been published in the Federal Reserve.</p>			<p>Endangered (CE) A native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.</p> <p>Threatened (CT) A native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant that, although, not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter (Chapter 1.4 of the California Fish and Game Code).</p> <p>Rare (CR) A species, or subspecies or variety is rare when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens.</p> <p>Candidate (CC) A native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.</p> <p>Species of Special Concern (SSC) Native species or subspecies that have become vulnerable to extinction because of declining population levels, limited ranges, or rarity. The goal is to prevent these animals from becoming endangered by addressing the issues of concern early enough to secure long term viability for these species. Bird Species of Special Concern appear in Remsen, 1978. CP = CDFG "fully protected" species (Sec. 4700, Chapt. 6, Sec 5050, Chapt. 2; Div. 5, Chapt. 1 Sec. 5515).</p>	

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Scientific Name - Portrait
 Nevada City Tech Center
 April 2010
 Nevada City Quad

Scientific Name/Common Name:	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 <i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	PDONA05053			G4G5T3	S3	1B.2
2 <i>Didymodon norrisii</i> Norris' beard moss	NBMUS2C0H0			G2G3	S2.2	2.2
3 <i>Fritillaria eastwoodiae</i> Butte County fritillary	PMLILOV060			G3Q	S3	3.2
4 <i>Lewisia cantelovii</i> Cantelov's lewisia	PDPOR04020			G3	S3.2	1B.2
5 <i>Mellichhoferia elongata</i> elongate copper moss	NBMUS4Q022			G4?	S2.2	2.2
6 <i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100			G4G6	S3S4	SC
7 <i>Rana boylei</i> foothill yellow-legged frog	AAABH01050			G3	S2S3	SC
8 <i>Rhynchospora capitellata</i> brownish beaked-rush	PMCYP0N080			G5	S2S3	2.2

U.S. Fish & Wildlife Service Sacramento Fish & Wildlife Office

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 100422122805

Database Last Updated: December 1, 2009

Quad Lists

Listed Species

Invertebrates

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Fish

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana aurora draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Proposed Species

Amphibians

Rana aurora draytonii
Critical habitat, California red-legged frog (PX)

Candidate Species

Mammals

Martes pennanti
fisher (C)

Quads Containing Listed, Proposed or Candidate Species:

NEVADA CITY (558D)

County Lists

No county species lists requested.

Key:

- (E) *Endangered* - Listed as being in danger of extinction.
- (T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
- (P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service.
Consult with them directly about these species.
- Critical Habitat* - Area essential to the conservation of a species.
- (PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
- (C) *Candidate* - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) *Critical Habitat* designated for this species

