

**BIOLOGICAL RESOURCES ASSESSMENT
FOR THE
±7.47-ACRE DELMAR-PASQUETTI STUDY AREA
CITY OF ROCKLIN, PLACER COUNTY, CALIFORNIA**



Prepared for:
Jason D. Pasquetti
3032 Thunder Valley Court, Suite 200
Lincoln, CA 95648

Prepared by:

11601 Blocker Drive, Ste. 100
Auburn, California 95603
(530) 888-0130

January 2020
(revised April 2020)

TABLE OF CONTENTS

Introduction	1
Location	1
Setting	1
Objectives	1
Methodology	1
Literature Review	1
Special Status Species Reports	4
Field Surveys	4
Results	5
Soils	5
Andregg coarse sandy loam, 2 to 9 percent slopes	5
Xerofluvents, frequently flooded	5
Hydrology	5
Biological Communities	5
Ruderal	6
Riparian	6
Oak Woodland	6
Annual Grassland	6
Waters of the United States	12
Wildlife Occurrence and Use	12
Special Status Species Assessment	13
Plants	15
Wildlife	18
Recommended Mitigation Measures	20
References	23

FIGURES

Figure 1. Vicinity and Location Map	2
Figure 2. Aerial Photograph	3
Figure 3. Habitat Map	7
Figure 4a-d. Site Photos	8-11
Figure 5a. CNDDDB Plants	14
Figure 5b. CNDDDB Animals	16

TABLES

Table 1. Biological Communities Present within the Study Area	6
Table 2. Waters of the U. S. Present within the Study Area.....	12
Table 3. Special-Status Plant Species with Potential to Occur within the Study Area.....	15
Table 4. Special-Status Animal Species with Potential to Occur within the Study Area.....	17
Table 5. Elderberry Plants Along the Boundary of the Delmar Pasquetti Study Area	19

APPENDICES

Appendix A. Plant Species Observed on the Project Site
Appendix B. Wildlife Species Observed on the Project Site
Appendix C. Potentially-occurring Special-Status Plants
Appendix D. Potentially-occurring Special-Status Wildlife

**BIOLOGICAL RESOURCES ASSESSMENT
FOR THE
±7.47-ACRE DELMAR-PASQUETTI STUDY AREA
City of Rocklin, Placer County, California**

INTRODUCTION

Location

Salix Consulting has conducted a Biological Resource Assessment (BRA) on an ±7.47-acre parcel located on Delmar Avenue just north of Pacific Street (Taylor Road) within the city limits of Rocklin, Placer County, California (study area). The study area is situated in Section 17, Township 11 North, Range 7 East on the Rocklin, California 7.5-minute USGS quadrangle (Figure 1). The approximate coordinates for the center of the study area are 38°48'30.62" north and 121°13'16.38" west.

This BRA updates a similar study prepared for the site by North Fork Associates in 2003. Waters of the U.S. were also delineated, and a report and map were prepared under separate cover. In addition, the riparian corridor along Antelope Creek was mapped, and a report was prepared.

Setting

The study area is located in the southwest portion of the Loomis basin between the Sacramento Valley and the lower Sierra Nevada foothills. The site slopes slightly to the west, with elevations ranging between 310 feet in the northeast corner to 275 along the western border. Portions of the western and northern property line are bound by Antelope Creek. A vacant lot borders the eastern half of the northern property line. Industrial properties are located to the east, and residential subdivisions are located south and west of the site (Figure 2).

Objectives

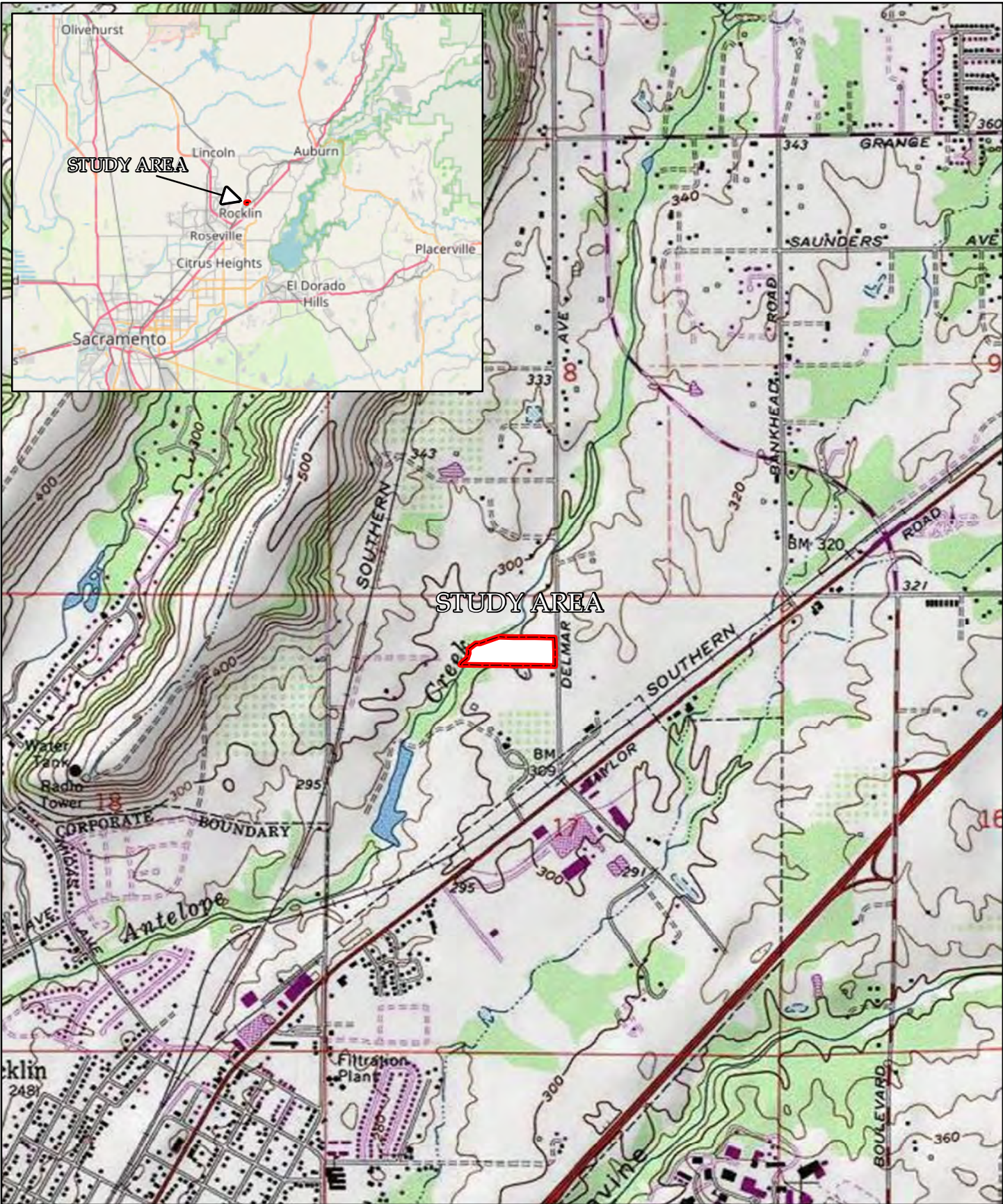
- Identify and describe the biological communities present in the study area.
- Record plant and animal species observed in the study area.
- Evaluate and identify sensitive resources and special-status plant and animal species that could potentially be affected by project activities.
- Provide conclusions and recommendations.

METHODOLOGY

Literature Review

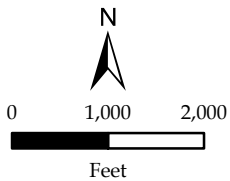
Salix biologists reviewed recent and historic aerial photographs, USGS maps, engineering exhibits, and site maps for the study area, as well as the 2003 biological resource assessment prepared for the site in 2003 (North Fork 2003). In addition, the site was flown in March 2019 with an unmanned aerial vehicle (UAV) to obtain an orthomosaic aerial photograph as well as

Figure 1 site vicinity



STUDY AREA

STUDY AREA



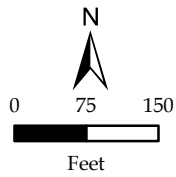
Source Maps: USGS Topographic Map
 Rocklin Quad 1:24,000
 S17 T11N R7E


Figure 1

SITE AND VICINITY MAP

Delmar - Pasquetti
 City of Rocklin, Placer County, CA

Figure 2 aerial



 Study Area
(±7.47 acres)

Imagery: 3-14-19 Salix Consulting

Figure 2
AERIAL MAP
Delmar - Pasquetti
City of Rocklin, Placer County, CA

oblique photos of the site (see cover photo and site photos). Standard publications were reviewed to provide information on life history, habitat requirements, and distribution of regionally-occurring animal species. They include published books, peer-reviewed articles, field guides, and the California Wildlife Habitats Relationships Program. Publications utilized in this assessment are included in the References section of this document. Information on soils was taken from the USDA/NRCS Web Soil Survey online.

Special Status Species Reports

To assist with the determination of which special-status species could occur within or near the study area, Salix biologists queried the California Natural Diversity Data Base (CDFW 2019), the California Native Plant Society Inventory (CNPS 2019), and the USFWS Information for Planning and Consultation (USFWS IPaC 2019) database for reported occurrences of special-status fish, wildlife, and plant species in the region surrounding the study area. The four-quadrangle search area duplicates the queries run in 2003 and included the Rocklin, Roseville, Folsom, and Citrus Heights USGS quadrangles. In addition, Salix biologists reviewed the California Department of Fish and Wildlife list of Species of Special Concern for the project vicinity.

For the purposes of this report, special-status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the federal Endangered Species Act (or candidate species, or formally proposed for listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- Designated a Species of Special Concern by the California Department of Fish and Wildlife, or
- Designated as Ranks 1, 2, or 3 on lists maintained by the California Native Plant Society.

Field Surveys

Field evaluations were conducted on several occasions in 2019 by Salix biologists; on January 29, March 14, April 5 and 29, June 4 and 19, and December 20. During the assessment, biological communities were mapped, and the potential for special-status species to inhabit the property was evaluated. A determination of the presence or absence of any potential waters of the U.S. was made.

Plants and animals observed were documented, and representative ground and aerial photographs were taken. Surveys to determine the actual presence or absence of potentially-occurring special-status species were not conducted. A wetland delineation conforming to U.S. Army Corps of Engineers standards was conducted and will be presented under separate cover. Plants observed are listed in Appendix A; animals observed are listed in Appendix B. Plant names are according to *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et. al. 2012) and updated literature that supersedes the Jepson Manual.

RESULTS

Soils

Two soils have been mapped on the property: Andregg coarse sandy loam, 2 to 9 percent slopes and Xerofluvents, frequently flooded.

Andregg coarse sandy loam, 2 to 9 percent slopes

Andregg soils cover the eastern half of the property adjacent to Delmar Avenue. The Andregg component makes up 85 percent of the map unit. Slopes are 2 to 9 percent. This component is on foothills, hills. The parent material consists of residuum weathered from granite. Depth to a root restrictive layer, bedrock, paralithic, is 29 to 33 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R018XD080CA Granitic ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Xerofluvents, frequently flooded

Xerofluvents occur along Antelope Creek and its floodplain. The Xerofluvents, frequently flooded component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 44 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 4w. Irrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent.

Hydrology

The site is in the Antelope Creek HUC12 watershed (180201110103) which is part of the greater Lower American HUC8 watershed (18020111). Water onsite flows westerly to Antelope Creek at western perimeter of the study area. Antelope Creek flows southwesterly from the site for 5-miles to Dry Creek. From the confluence Dry Creek flows west/southwest into Steelhead Creek. Steelhead creek flows south to southwest before entering the Sacramento River near the confluence with the American River near Discovery Park.

Biological Communities

Four (4) biological communities are identified on the property: ruderal, oak woodland, annual grassland, and riparian (Table 1 and Figure 3). Imbedded within these communities are areas of wetland, which are summarized in Table 2. Figures 4a through 4d show representative photographs of the habitats.

Table 1. Biological Communities Present within the Delmar-Pasquetti Study Area

Biological Community	Approximate Acreage
Ruderal	2.62
Riparian	1.42
Oak Woodland	1.38
Annual Grassland	2.05
Total	7.47

Ruderal

Ruderal habitat are areas of ongoing disturbed ground dominated by weedy annual species adapted to disturbance. Ripgut grass (*Bromus diandrus*), foxtail barley (*Hordeum marinum*), purple sand spurrey (*Spergularia rubra*), and yellow star thistle (*Centaurea solstitialis*) are common species in the disturbed areas. A few oaks are included in the ruderal habitat.

Riparian

The riparian corridor along Antelope Creek is dominated by hydrophytic tree and shrub species, including valley oak (*Quercus lobata*), Fremont cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*), willow (*Salix exigua*, *S. laevigata*, *S. lasiolepis*, *S. gooddingii*), and Himalayan blackberry (*Rubus armineacus*). Herbaceous species along the creek include California mugwort (*Artemisia douglasiana*), South American vervain (*Verbena bonariensis*), and pokeweed (*Phytolacca Americana*). Hebeaceous species along the creek banks include Dallis grass (*Paspalum dilatatum*), and rice cutgrass (*Leersia oryzoides*).






Oak Woodland

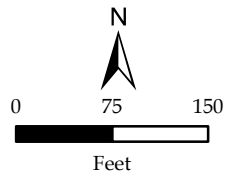
Approximately 1.4 acres of the study area is oak woodland, located primarily along the southern boundary. Valley oak and interior live oak (*Quercus wislizeni*) are the common tree species in this habitat. Shrubs in this woodland include coyote bush (*Baccharis pilularis*), poison oak (*Toxicodendron diversilobum*), cherry plum (*Prunus cerasifera*), Himalayan blackberry, and elderberry (*Sambucus nigra*). Common herbaceous species in the oak woodland include hedgehog dogtail (*Cynosurus echinatus*), common miner's lettuce (*Claytonia perfoliata*), and field hedge parsley (*Torilis arvensis*).


Annual Grassland

The annual grassland, approximately 2 acres, is a previously disturbed area (this site was a storage yard for old, unused vehicles) that has revegetated with annual grasses, forbs, and scattered shrubs. Species common in the annual grassland include ripgut grass, soft chess (*Bromus hordeaceus*), broad leaf filaree (*Erodium botrys*), short-podded mustard (*Hirschfeldia incana*), yellow star-thistle, Italian thistle (*Carduus pycnocephalus*), and fiddleneck (*Amsinckia menziesii*).

Habitat Components

-  Annual Grassland (±2.05 acres)
-  Oak Woodland (±1.38 acres)
-  Riparian (±1.42 acres)
-  Ruderal (±2.62 acres)
-  Elderberry Shrubs



 Study Area
(±7.29 acres)

Imagery: 3-14-19 Salix Consulting

Figure 3

HABITAT MAP

Delmar - Pasquetti
City of Rocklin, Placer County, CA



Looking east over property and Antelope Creek corridor.
Photo Date 3-14-19



Large cottonwood in western area of study area.
Photo Date 6-4-19



Figure 4a

SITE PHOTOS

Delmar-Pasquetti
City of Rocklin, Placer County, CA



Central area of property. Antelope Creek in foreground and wetland swale in upper area. *Photo Date 3-14-19*



Looking south across property. *Photo Date 6-4-19*



Figure 4b

SITE PHOTOS

Delmar-Pasquetti

City of Rocklin, Placer County, CA



Open area in mid section of study area looking toward Antelope Creek corridor. *Photo Date 6-19-19*



Looking east up wetland swale toward Delmar Avenue. *Photo Date 3-14-19*



Figure 4c

SITE PHOTOS

Delmar-Pasquetti
City of Rocklin, Placer County, CA



Looking at typical elderberry shrub in cluster along southern boundary of the Study Area.
Photo date 12-20-19

Looking west at SW-1 and riparian habitat associated with Antelope Creek.
Photo date 12-20-19



Waters of the United States

A wetland delineation conducted to Corps standards was prepared for the property and is presented under separate cover. The delineation identifies three categories of waters of the United States: other waters – perennial stream (Antelope Creek), wetland swale, and seasonal wetland, totaling 0.507 acre, as summarized in Table 2.

Table 2. Waters of the United States present within the Delmar Pasquetti Study Area

Type	Acreage
Other Waters	
Perennial Stream (Antelope Creek)	0.183
Wetlands	
Wetland Swale	0.248
Seasonal Wetland	0.076
Total Waters of the United States	0.507

Antelope Creek is a major regional stream that flows along a portion of the northern and western property boundaries. The stream supports a narrow riparian corridor. A wetland swale flows along the southern property boundary. The eastern half receives runoff from the industrial park to the east. A tributary of the swale enters from the development to the south. The swale flows west into a seasonal wetland, essentially a dense sandbar willow patch, near Antelope Creek.

Wildlife Occurrence and Use

The property, particularly along Antelope Creek, provides quality habitat for many species. Water and cover attract both resident and transient wildlife. There is ample bird nesting opportunity in the large trees of the site and particularly in the riparian corridor. Wildlife habitat is minimal in the open area in the eastern portion of the site along Delmar Avenue. Some of the species observed during site visits include American crow (*Corvus brachyrhynchos*), western scrub jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), turkey vulture (*Cathartes aura*) and white-tailed kite (*Elanus leucurus*).

Himalayan blackberry and other shrubs grow densely along the north and south borders and along Antelope Creek. These brushy areas provide suitable habitat for species such as yellow-rumped warbler (*Dendroica coronata*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), and house finch (*Carpodacus mexicanus*). The large cottonwood, willow, valley oak, and interior live oak on the site provide excellent habitat for woodpeckers such as acorn woodpecker (*Melanerpes formicivorus*), downy woodpecker (*Picoides pubescens*), and northern flicker (*Colaptes auratus*). Although no raptor nests were observed on site, red-shouldered hawk (*Buteo lineatus*) and red-tailed hawk (*Buteo jamaicensis*) were observed in the area. In addition, wild turkey (*Meleagris gallopavo*), Anna's hummingbird (*Calypte anna*), white-breasted nuthatch (*Sitta carolinensis*), bushtit (*Psaltiriparus minimus*), and red-winged blackbird (*Agelaius phoeniceus*) were also observed using the riparian

areas. Reptiles observed include western fence lizard (*Sceloporus occidentalis*) and Gilbert's skink (*Eumeces gilberti*).

The undercut bank of Antelope Creek and overhanging vegetation provides homes for a variety of animals in the area. Species observed in or near the creek include Pacific tree frog (*Pseudacris regilla*) and the tracks of raccoon (*Procyon lotor*).

According to the Draft Placer County Conservation Plan (County of Placer 2019), special-status anadromous fish such as steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*) are known to occur in the Dry Creek drainage, which is approximately 4.5 miles downstream (southwest) of the project site. However, it is unlikely that any special status anadromous fish occur in Antelope Creek upstream of the project site due to impediments such as a large earthen dam, located approximately one-half mile southwest of the site. This impoundment would prevent fish from traveling upstream to spawn.

Special Status Species Assessment

To determine potentially-occurring special-status species, the standard databases from the CDFW (CNDDDB 2019), CNPS (2019), and USFWS Information for Planning and Consultation (IPaC 2019) were queried and reviewed. These searches provided a thorough list of regionally-occurring special-status species and were used to determine which species had at least some potential to occur within or near the study area. Appendix C lists potentially-occurring special-status plants, and Appendix D lists special-status animals compiled from our queries as described above. The field survey and the best professional judgment of Salix biologists were used to further refine the tables in Appendices C and D. If any CNPS Rank 4 species were encountered in the study area, they would be noted.

Figure 5a shows approximate locations of reported occurrences of special-status plants within a 5-mile radius of the study area, and Figure 5b shows approximate locations of reported occurrences of special-status animals within a 5-mile radius of the study area.

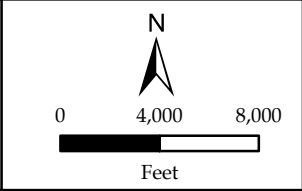
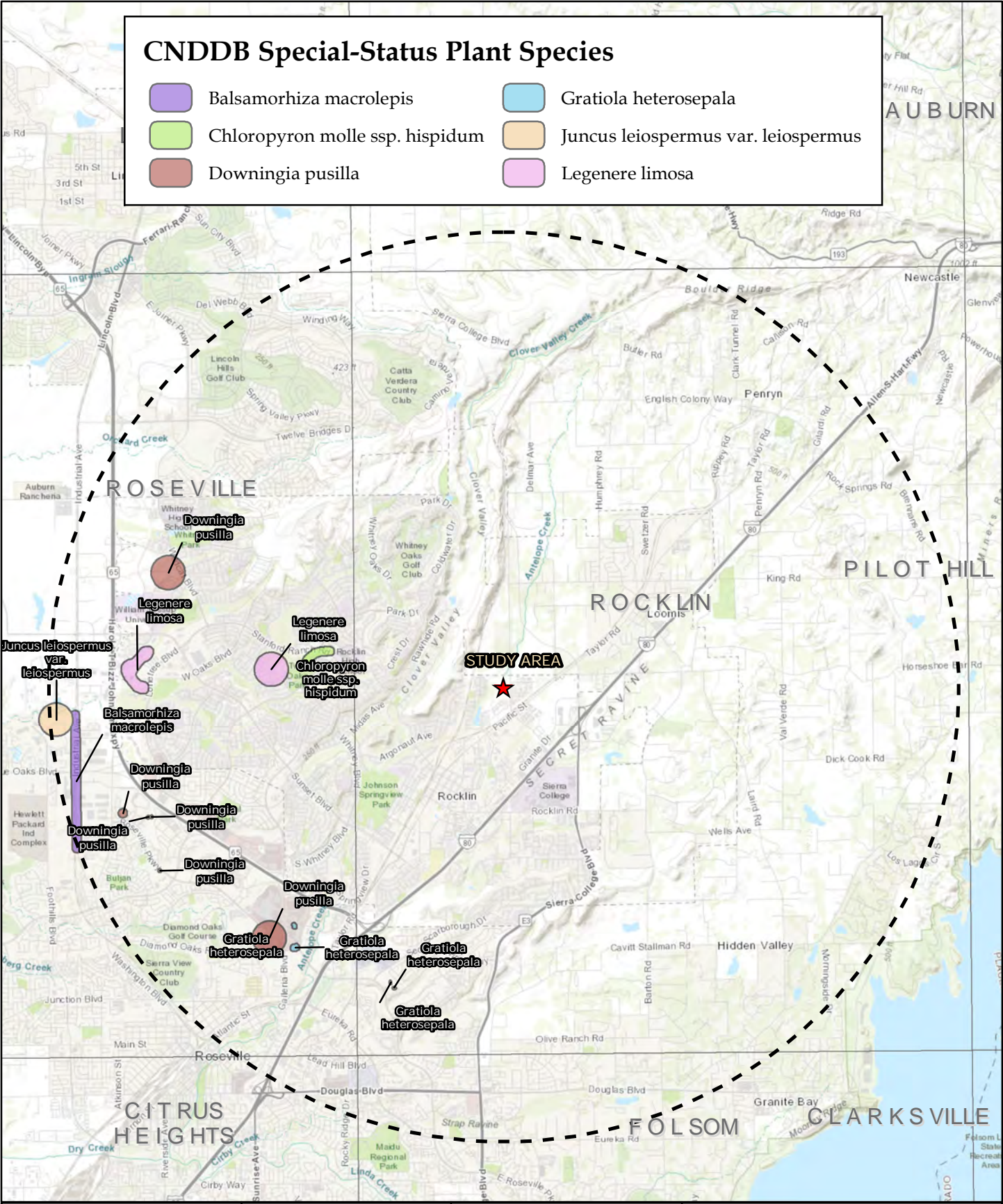
Special-status Plants

Of the nine (9) potentially-occurring plant species listed in Appendix C, six (6) species were identified as occurring within the surrounding region (generally within a 5-mile radius of the study area) (Figure 5a), and eight (8) species were determined to have no potential to occur within study area due to lack of suitable habitats, microhabitats, or substrates. The six (6) species listed below require vernal pools or similar habitats that are not present within the study area; four (4) of these are reported to occur within a 5-mile radius of the study area (Figure 5a) and are marked with an *.

- Dwarf downingia (*Downingia pusilla*)*
- Legenere (*Legenere limosa*)*
- Red Bluff dwarf rush (*Juncus leiospermus leiospermus*)*
- Bogg's Lake hedge-hyssop (*Gratiola heterosepala*)*
- Sacramento Valley Orcutt grass (*Orcuttia viscida*)
- Pincushion navarretia (*Navarretia myersii myersii*)

CNDDDB Special-Status Plant Species

- Balsamorhiza macrolepis*
- Gratiola heterosepala*
- Chloropyron molle* ssp. *hispidum*
- Juncus leiospermus* var. *leiospermus*
- Downingia pusilla*
- Legenere limosa*



★ Project Site
 5-Mile Radius

Figure 5a
CNDDDB OCCURRENCES MAP
Delmar - Pasquetti
 City of Rocklin, Placer County, CA

In addition, two species have no potential to occur within the study area due to lack of suitable habitats: big-scale balsamroot (*Balsamorhiza macrolepis*) requires habitat and soils that are not present, and hispid salty bird's-beak (*Chloropyron molle hispidum*) requires alkaline substrates, which are also not present. Both species are reported to occur within a 5-mile radius of the study area.

One (1) plant species from Appendix C, listed in Table 3 below, Sanford's arrowhead (*Sagittaria sanfordii*) was determined to have some potential to occur within the study area. It is not reported to occur within a 5-mile radius of the study area (Figure 5a) and is described below.

**Table 3.
Special-Status Plant Species Determined to Have Some Potential to Occur
within the Delmar-Pasquetti Study Area**

Species	Status*			Habitat	Potential for Occurrence Within Study Area**
	Federal	State	CNPS		
Sanford's arrowhead <i>Sagittaria sanfordii</i>	-	-	1B.2	Marshes and swamps (assorted shallow freshwater)	Unlikely. May occur along quiet reaches of Antelope Creek.

*Status Codes:
CNPS
Rank 1B Rare, Threatened, or Endangered in California

**Definitions for the Potential to Occur:
Unlikely. Some habitat may occur, but disturbance may restrict/eliminate the possibility of occurrence. Habitat may be very marginal, or study area is outside range of species.

Plants

As noted above, almost all of the special-status plants in Appendix C have special habitat requirements not found within the Delmar Pasquetti study area. As noted in Table 3, one species has some potential to occur on the site and is described below.

Sanford's arrowhead (*Sagittaria sanfordii*) is a perennial rhizomatous herb, and member of the Alismataceae family. It has no state or federal status, but it is ranked 1B.2 by CNPS. It occurs in marshes, swamps and other shallow freshwater habitats. It has minimal probability to occur in Antelope Creek.

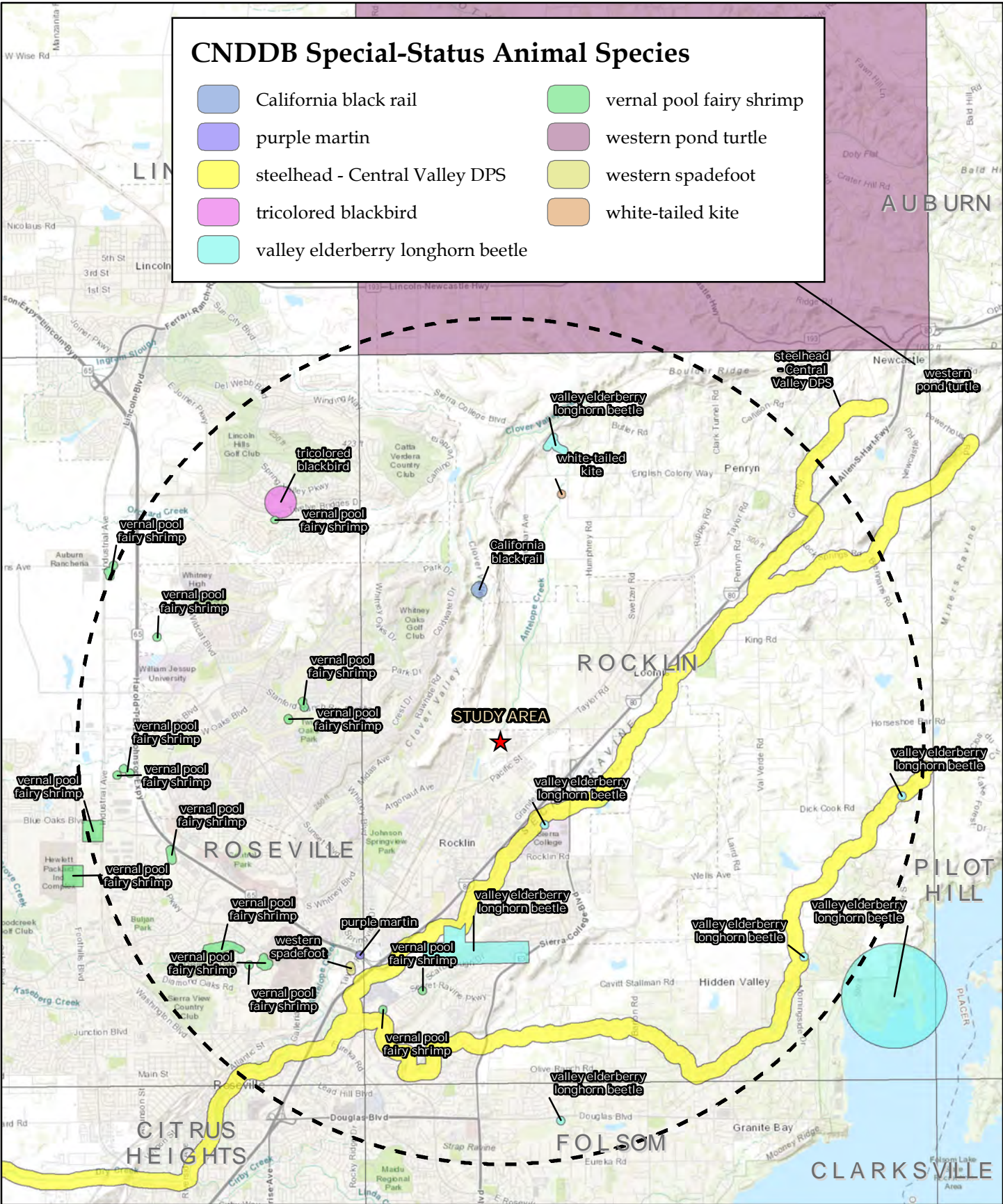
Special-status Animals

Of the 19 potentially-occurring animal species listed in Appendix D, nine (9) species were identified as occurring within the surrounding region (generally within a 5-mile radius of the study area) (Figure 5b).

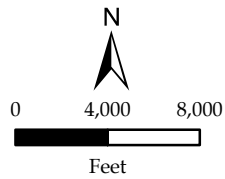
Fourteen (14) species were determined to have no potential to occur within the study area due to lack of suitable habitats or microhabitats. These have been dismissed from further consideration. Five (5) of these species are reported to occur within a 5-mile radius of the study area and marked with an asterisk in the lists below.

CNDDDB Special-Status Animal Species

- California black rail
- vernal pool fairy shrimp
- purple martin
- western pond turtle
- steelhead - Central Valley DPS
- western spadefoot
- tricolored blackbird
- white-tailed kite
- valley elderberry longhorn beetle



STUDY AREA



★ Project Site
 ○ 5-Mile Radius

Figure 5b

CNDDDB OCCURRENCES MAP
 Delmar - Pasquetti
 City of Rocklin, Placer County, CA

The following species have no potential to occur due to the lack of vernal pools, wetlands, marshes, and similar aquatic habitats:

- Vernal pool fairy shrimp (*Branchinecta lynchi*)*
- Vernal pool tadpole shrimp (*Lepidurus packardii*)
- Western spadefoot (*Spea hammondi*)*
- California red-legged frog (*Rana draytonii*)
- Giant garter snake (*Thamnophis gigas*)

Delta smelt (*Hypomesus transpacificus*) has no potential to occur because the study area is located outside the range of the species (Sacramento-San Joaquin Delta).

The following species have no potential to occur due to the lack of suitable nesting or roosting habitat within the study area:

- Swainson's hawk (*Buteo swainsoni*)
- California black rail (*Laterallus jamaicensis coturnculus*)*
- Burrowing owl (*Athene cunicularia*)
- Bank swallow (*Riparia riparia*)
- Grasshopper sparrow (*Ammodramus savannarum*)
- Tricolored blackbird (*Agelaius tricolor*)*
- Pallid bat (*Antrozous pallidus*)

American badger (*Taxidea taxus*) has no potential to occur due to the proximity to human activities and developments.

Five (5) animal species were determined to have some potential to occur within the study area (Appendix D). These species are listed in Table 4 below and are discussed in detail below the Table.

Table 4.
Special-Status Animal Species Determined to Have Some Potential to Occur
within the Delmar-Pasquetti Study Area

Species	Status*		Habitat	Potential for Occurrence Within Study Area**
Federal	State			
Insects				
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	-	Requires host plant, elderberry (<i>Sambucus nigra</i>) for most of its life cycle. Shrubs must have stem diameters at ground level of 1.0 inch or greater and shrubs must occur in Great Valley and low foothills. Typically occur in riparian habitat.	Observed. Ten (10) Elderberry shrubs occur along southern property boundary near Antelope Creek, but nowhere else.

Species	Status*		Habitat	Potential for Occurrence Within Study Area**
	Federal	State		
Fish				
Steelhead, Central Valley ESU <i>Oncorhynchus mykiss irideus</i>	FT	-	Occurs below man-made impassable barriers in the Sacramento and San Joaquin rivers and tributaries. Adults migrate from ocean to natal freshwater streams to spawn. Yuba River has essentially the only remaining wild steelhead fishery in Central Valley.	Unlikely. Antelope Creek is not on the list of streams in the Dry Creek watershed that are included in critical habitat for the species (they would be Secret and Miners Ravine).
Reptiles				
Western pond turtle <i>Actinemys marmorata</i>	-	SSC	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying.	Unlikely. Site lacks ponds, but Antelope Creek could be used as a travel corridor.
Birds				
White-tailed kite <i>Elanus leucurus</i>	-	CFP	Found in lower foothills and valley margins with scattered oaks and along river bottomlands or marshes adjacent to oak woodlands. Nests in trees with dense tops.	Possible. Tall trees on site may support nesting. Observed flying above the site.
Purple martin <i>Progne subis</i>	-	SSC	Breeds in riparian woodland, oak woodland, open coniferous forests. Secondary cavity nester. Requires nest sites close to open foraging areas of water or land.	Possible. Potentially suitable nesting habitat occurs within study area, and an open field north of the site may provide suitable open areas for foraging.

*Status Codes:

Federal

FT Federal Threatened

State

CFP California Fully-protected

SSC California Species of Concern

****Definitions for the Potential to Occur:**

Unlikely: Minimal or marginal quality habitat in the study area.

Possible. Suitable habitat occurs within the study area.

Likely. Study area provides desirable habitat for species and there is a very high probability for its occurrence.

Observed: Species was observed within the study area.

Wildlife

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB) requires a host plant (elderberry shrub) for most of its life cycle. It cannot be ruled out as occurring on the property because 10 elderberry shrubs occur along the southern boundary near Antelope Creek. No elderberry shrubs have been detected anywhere else on the property. Figure 4d provides photos of typical elderberries on the site. Table 5 provides additional information regarding the 10 elderberry shrubs observed.

Table 5
Elderberry Plants Along the Boundary of the DelMar Pasquetti Study Area
(plant number corresponds to plant numbering on Figure 3)

Plant #	Exit Hole	> 1" - ≤ 3"	> 3" - < 5"	≥ 5"	Notes
01	N	1			
02	Y	2			
03	Y	1			
04	Y			1	Several dead branches with holes
05	N		1		
06	N	1			
07	N	1			
08	N	1			
09	N	1			
10	N	1	1		

Steelhead, Central Valley ESU (*Oncorhynchus mykiss irideus*) is federally-listed as threatened. According to the draft Placer County Conservation Plan, Central Valley steelhead is known to be present in the Bear River, Coon Creek (including the Doty Ravine tributary), Auburn Ravine, and Dry Creek (including Secret Ravine and Miner’s Ravine tributaries). Coon Creek and one of its tributaries, Doty Ravine, as well as Dry Creek and two of its tributaries, Secret Ravine and Miners Ravine, are listed as critical habitat for Central Valley steelhead (NMFS 2005). Antelope Creek is not on the list of streams in the Dry Creek watershed that are included in critical habitat. Secret Ravine supports the highest quality habitat for steelhead in the Dry Creek watershed. Coon Creek appears to contain good migration corridors for adult salmonids, patchy spawning habitat and good juvenile rearing habitat in lower reaches, and good spawning habitat and juvenile rearing habitat in the reach from McCourtney Road to the downstream end of the canyon section below Garden Bar Road. Doty Ravine contains good migration corridors and juvenile rearing habitat. Lower reaches contain primarily small-sized sediments (sand and gravel) with occasional small patches of larger material. Spawning gravel is larger and more abundant in upstream reaches.

The CDFW has, throughout its management history of the Dry Creek drainage, regarded Antelope Creek and its tributary, Clover Valley Creek, as salmonid spawning and rearing habitat. In a memorandum dated October 19, 1964, CDFW staff reported the presence of rainbow trout in upper Clover Valley creek (CDFW 2015). Spawned-out salmon carcasses and live salmon were observed in Clover Valley Creek in December 1963 and salmon fry were observed in the creek in April 1964 (CDFW 2015). Currently, there is no reliable data to determine whether steelhead are present in Antelope Creek or Clover Valley Creek.

No steelhead were observed during the 2019 site assessments.

Western pond turtle (*Actinemys marmorata*) is a California species of special concern and common in suitable aquatic habitat throughout the state, west of the Sierra-Cascade crest, and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. The species elevation range extends from near sea level to near 5000 feet. It is associated with permanent or nearly permanent water in a wide variety of habitat types. Pond turtles require basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks. Turtles slip from basking sites to underwater retreats at the approach of humans or potential predators. Hibernation in colder areas is passed underwater in bottom mud. Individuals normally associate with permanent ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams. It is unlikely that western pond turtle occurs within the study area due to the absence of pond. However, the turtle may utilize Antelope Creek as a travel corridor. It was not observed during the 2019 site assessments.

White-tailed kite (nesting) (*Elanus leucurus*) is fully protected in California and is commonly associated with certain types of agriculture areas. It also generally occurs in low-elevation grassland, wetland, oak woodland, low shrub, open woodlands, or savannah habitats. This species also uses fence rows and irrigation ditches (with residual vegetation). Riparian areas adjacent to open space areas are typically used for nesting, where kites prefer dense, broad-leafed deciduous trees for nesting and night roosting. They also nest in young redwoods and mid-sized Douglas firs in Northern California. Due to the presence of suitable nesting habitat within the study area, it is possible that white-tailed kite may occur. While the species was observed flying overhead, it was not observed nesting during the 2019 site assessments.

Purple martin (*Progne subis*), a Species of Special Concern in California, occurs as a summer resident and migrant, primarily from mid-March to late September. It breeds from May (rarely late April) to mid-August. Purple Martins are widely but locally distributed in forest and woodland areas at low to intermediate elevations throughout much of the state. The species nests in riparian woodland, oak woodland, open coniferous forests; it is a secondary cavity nester and requires nest sites close to open foraging areas of water or land. Suitable nesting habitat may occur within the study area, and a potentially suitable open area for foraging is located to the north of the study area. Therefore, it is possible that purple martin may nest within the study area. It was not observed nesting during the 2019 site assessments.

RECOMMENDED MITIGATION MEASURES

Waters of the United States

The Delmar-Pasquetti property supports areas that are considered waters of the United States. Impacts to these areas would be regulated by the Corps of Engineers and the Regional Water Quality Control Board (RWQCB) and would require application for Clean Water Act permits (Section 404 from the Corps and Section 401 from the RWQCB).

Streams, Pond, and Riparian Habitat

Antelope Creek and its associated riparian habitat are within the regulatory authority of the California Department of Fish and Wildlife (CDFW). The boundary of the creek and riparian area have been verified by the City, and this area plus a 50' buffer will be set aside as open

space (consistent with City policy), and no construction or development will be allowed within the boundary of this area. Therefore, no impacts to this area are anticipated, and a Lake and Streambed Alteration Agreement from CDFW will not be required. Due to the occurrence of special status anadromous fish in the Dry Creek drainage downstream of the site, sediment control measures may be required to avoid contributing sediment or pollution to Antelope Creek.

Tree Conservation

Based on language in the City of Rocklin's tree ordinance, protected trees may occur within the study area. The City of Rocklin tree ordinance has specific guidelines governing trees on undeveloped parcels and may require a tree preservation plan permit to remove, relocate, or to conduct any ground-disturbing activities within the protective zone of any protected trees. The City of Rocklin Planning Department should be consulted for current guidance on project specific oak mitigation.

Special-Status Plants

The site contains marginal habitat within Antelope Creek for one special-status plant species, Sanford's arrowhead. This species occurs in low gradient, slow moving waters, often ditches, that carry shallow water for most of the year. It blooms in late summer and early fall. Since no construction or development will be allowed within the habitat of Antelope Creek, which is the only habitat within the study area that may support special-status plants, no impacts are proposed, and no further surveys are recommended.

Special-Status Wildlife

- The property supports a cluster of elderberry shrubs near the southern boundary near Antelope Creek. Elderberry is habitat for valley elderberry longhorn beetle (VELB), a federally threatened species. In accordance with US Fish & Wildlife guidelines, all heavy equipment and earth moving activities would occur a minimum of 50' from existing elderberry shrubs that are potential habitat for VELB. The 50' buffer would be demarcated with high-visibility construction fencing. Construction related activities within 250' of the elderberry shrubs would occur in August through October after the adult emergence, mating, and egg-laying period for VELB. Dust control would be utilized to limit the amount of dust that could settle on the elderberry shrubs. These provisions have been included in the application for a Nationwide Permit from the Corps of Engineers, who will determine if Section 7 (ESA) consultation is required.
- The project should implement Best Management Practices (BMPs) to avoid any detrimental water quality impacts to Antelope Creek. No disturbance to Antelope Creek is proposed, however western pond turtle may cross land periodically at any time. Thus, a preconstruction survey should be performed within 5 days of construction initiation to determine if turtles are traveling through areas scheduled for construction activity. If turtles are detected, they should be relocated to a safe reach of the same stream prior to the initiation of construction activity. In addition, pre-construction on-site education for all persons working on the project site regarding identification of western pond turtle, habitat

requirements, and appropriate relocation techniques should take place prior to the initiation of ground-disturbance activity.

- Potential nesting habitat for common raptors and other birds protected by the Migratory Bird Treaty Act (such as white-tailed kite and purple martin) occurs in association with trees and shrubs located in the study area. Take of any active nest is prohibited under California Fish and Game Code sections 3503, 3503.5, and 3513. If any tree removal or adjacent construction activity takes place during the breeding/ nesting season (February 1 through August 31), disturbance of nesting activities could occur. To avoid impacts to nesting birds, pre-construction surveys should be conducted by a qualified biologist no more than 15 days prior to initiation of proposed development activities. If active nests are found on or immediately adjacent to the site, the City of Rocklin shall be contacted and if requested, CDFW, to determine appropriate avoidance measures. If no nesting is found to occur, necessary vegetation removal could then proceed.

REFERENCES

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson manual: vascular plants of California*, second edition. University of California Press, Berkeley.
- California Department of Fish and Wildlife, California Wildlife Habitat Relationships Program. 2008. *Complete List of Amphibians, Reptiles, Birds, and Mammals in California*. Sacramento, California.
- California Department of Fish and Wildlife, Wildlife and Habitat Data Analysis Branch. 2019. *Natural Diversity Data Base Report (CNDDDB)*. Sacramento, California.
- California Native Plant Society. 2019. *Inventory of Rare and Endangered Plants*. An online database maintained by the Native Plant Society.
- County of Placer. 2019. *Draft Placer County Conservation Plan, Species Account for Central Valley Steelhead*.
- North Fork Associates. 2003. *Biological Resources Assessment for the ±7.5-acre Bianchi-Delmar Project Site, City of Rocklin, Placer County, California, June 11, 2003*.
- _____. 2003. *Wetland Delineation for the ±7.5-acre Bianchi-Delmar Project Site, City of Rocklin, Placer County, California, April 17, 2003*.
- Sibley, D.A. 2003. *The Sibley Field Guide to Birds of Western North America*. Alfred A. Knopf. New York.
- Stebbins, R.C. 1985. *A Field Guide to Western Reptiles and Amphibians*. Houghton Mifflin Company. Boston, MA.
- USDA/NRCS. *Web Soil Survey, Placer County, California*, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed: 2019.
- Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1988. *California's Wildlife, Volume I. Amphibians and Reptiles*. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.
- Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990a. *California's Wildlife, Volume II: Birds*. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.
- Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990b. *California's Wildlife, Volume III: Mammals*. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Appendix A.
Plant Species Observed Within the Delmar-Pasquetti Study Area

Appendix A

Delmar Pasquetti - Plants Observed - 2019

Angiosperms - Dicots

Adoxaceae - Muskroot Family

Sambucus nigra Black elderberry

Anacardiaceae - Cashew or Sumac Family

Toxicodendron diversilobum Western poison-oak

Apiaceae (Umbelliferae) - Carrot Family

**Foeniculum vulgare* Sweet fennel

**Torilis arvensis* Field hedgeparsley

Asteraceae (Compositae) - Sunflower Family

Artemisia douglasiana California mugwort

Baccharis pilularis Coyote brush

**Carduus pycnocephalus* Italian thistle

**Centaurea solstitialis* Yellow starthistle

**Cichorium intybus* Chicory

**Cirsium vulgare* Bull thistle

**Dittrichia graveolens* Stinkwort

Erigeron canadensis Canadian horseweed

**Hypochaeris glabra* Smooth cat's-ear

**Lactuca serriola* Prickly lettuce

**Matricaria discoidea* Pineapple-weed

**Senecio vulgaris* Common groundsel

**Silybum marianum* Milk thistle

**Sonchus asper* subsp. *asper* Prickly sow-thistle

Xanthium strumarium Cocklebur

Bignoniaceae - Bignonia Family

**Catalpa* sp. Catalpa

Brassicaceae (Cruciferae) - Mustard Family

**Brassica nigra* Black mustard

Cardamine oligosperma Western bitter-cress

**Hirschfeldia incana* Short-podded mustard

Lepidium strictum Peppergrass

**Raphanus sativus* Wild radish

Caryophyllaceae - Pink Family

**Cerastium glomeratum* Sticky mouse-ear chickweed

**Spergularia rubra* Ruby sand-spurrey

**Stellaria media* Common chickweed

Convolvulaceae - Morning-Glory Family

**Convolvulus arvensis* Bindweed

Euphorbiaceae - Spurge Family

**Triadica sebifera* Chinese tallow tree

* Indicates a non-native species

Fabaceae (Leguminosae) - Legume Family

Acmispon americanus

**Medicago polymorpha*

**Trifolium hirtum*

**Vicia sativa*

**Vicia villosa*

Spanish lotus

California burclover

Rose clover

Common vetch

Winter vetch

Fagaceae - Oak Family

Quercus lobata

Quercus wislizeni

Valley oak

Interior live oak

Geraniaceae - Geranium Family

**Erodium botrys*

**Erodium brachycarpum*

**Geranium dissectum*

**Geranium molle*

Broad-leaf filaree

Short-fruited stork's-bill

Cut-leaf geranium

Dove's-foot geranium

Hypericaceae - St. John's Wort Family

**Hypericum perforatum* subsp. *perforatum*

Klamathweed

Lamiaceae (Labiatae) - Mint Family

**Lamium amplexicaule*

**Mentha pulegium*

Deadnettle

Pennyroyal

Lythraceae - Loosestrife Family

**Lythrum hyssopifolia*

Hyssop loosestrife

Montiaceae - Miner's Lettuce Family

Calandrinia ciliata

Red maids

Moraceae - Mulberry Family

**Ficus carica*

Common fig

Myrsinaceae - Myrsine Family

**Lysimachia arvensis*

Scarlet pimpernel

Oleaceae - Olive Family

Fraxinus latifolia

Oregon ash

Onagraceae - Evening Primrose Family

Epilobium brachycarpum

Epilobium ciliatum

Summer cottonweed

Hairy willow-herb

Papaveraceae - Poppy Family

Eschscholzia californica

California poppy

Phrymaceae - Lopseed Family

Erythranthe guttata

Common monkeyflower

Phytolaccaceae - Pokeweed Family

**Phytolacca americana* var. *americana*

Pokeweed

Plantaginaceae - Plantain Family

**Plantago coronopus*

**Plantago lanceolata*

Cut-leaf plantain

English plantain

Polygonaceae - Buckwheat Family

Persicaria lapathifolia

**Polygonum aviculare*

**Rumex acetosella*

**Rumex crispus*

Willow weed

Common knotweed

Sheep sorrel

Curly dock

* Indicates a non-native species

Rhamnaceae - Buckthorn Family*Frangula californica*

California coffeeberry

Rosaceae - Rose Family**Prunus cerasifera*

Cherry plum

**Rubus armeniacus*

Himalayan blackberry

Rubiaceae - Madder Family*Galium aparine*

Goose grass

Salicaceae - Willow Family*Populus fremontii*

Fremont cottonwood

Salix exigua

Narrow-leaved willow

Salix gooddingii

Goodding's black willow

Salix laevigata

Red willow

Salix lasiolepis

Arroyo willow

Scrophulariaceae - Figwort Family**Verbascum blattaria*

Moth mullein

**Verbascum thapsus*

Woolly mullein

Verbenaceae - Vervain Family**Verbena bonariensis*

South American vervain

Angiosperms - Monocots

Alismataceae - Water-Plantain Family*Alisma triviale*

California water plantain

Cyperaceae - Sedge Family*Carex praegracilis*

Clustered field-sedge

Cyperus eragrostis

Tall flatsedge

Juncaceae - Rush Family*Juncus balticus*

Baltic rush

Juncus bufonius

Toad rush

**Juncus effusus*

Soft rush

Juncus xiphioides

Iris-leaved rush

Poaceae (Gramineae) - Grass Family**Aira caryophylla*

Silver European hairgrass

**Avena fatua*

Wild oat

**Bromus diandrus*

Ripgut grass

**Bromus hordeaceus*

Soft chess

**Cynodon dactylon*

Bermudagrass

**Cynosurus echinatus*

Hedgehog dogtail

**Festuca myuros*

Rattail sixweeks grass

**Festuca perennis*

Italian ryegrass

**Hordeum marinum subsp. gussoneanum*

Mediterranean barley

**Hordeum murinum*

Wall barley

**Leersia oryzoides*

Rice cutgrass

**Paspalum dilatatum*

Dallis grass

**Poa annua*

Annual bluegrass

**Polypogon monspeliensis*

Annual beard grass

Appendix B.
Wildlife Species Observed Within the Delmar-Pasquetti Study Area

Appendix B
Delmar-Pasquetti -- Wildlife Observed

Amphibians

Pacific chorus frog *Pseudacris regilla*

Birds

Turkey vulture	<i>Cathartes aura</i>
Mallard	<i>Anas platyrhynchos</i>
White-tailed kite	<i>Elanus leucurus</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Wild turkey	<i>Meleagris gallopavo</i>
California quail	<i>Callipepla californica</i>
Rock dove	<i>Columba livia</i>
Mourning dove	<i>Zenaida macroura</i>
Anna's hummingbird	<i>Calypte anna</i>
Acorn woodpecker	<i>Melanerpes formicivorus</i>
Downy woodpecker	<i>Picoides pubescens</i>
Northern flicker	<i>Colaptes auratus</i>
Black phoebe	<i>Sayornis nigricans</i>
Hutton's vireo	<i>Vireo huttoni</i>
Western scrub-jay	<i>Aphelocoma californica</i>
American crow	<i>Corvus brachyrhynchos</i>
Bushtit	<i>Psaltriparus minimus</i>
White-breasted nuthatch	<i>Sitta carolinensis</i>
American robin	<i>Turdus migratorius</i>
Northern mockingbird	<i>Mimus polyglottos</i>
European starling	<i>Sturnus vulgaris</i>
Yellow-rumped warbler	<i>Setophaga coronata</i>
Spotted towhee	<i>Pipilo maculatus</i>
California towhee	<i>Melospiza crissalis</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>
Red-winged blackbird	<i>Agelaius phoeniceus</i>
House finch	<i>Haemorhous mexicanus</i>
Lesser goldfinch	<i>Spinus psaltria</i>

Mammals

Eastern fox squirrel	<i>Sciurus niger</i>
Raccoon	<i>Procyon lotor</i>

Appendix C
Potentially-Occurring Special-Status Plants in the Region of the Delmar-Pasquetti
Study Area

Appendix C
Delmar-Pasquetti Potentially-Occurring Special-Status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Alismataceae				
<i>Sagittaria sanfordii</i> Sanford's arrowhead	Fed: - State: - CNPS: Rank 1B.2	May-October	Marshes and swamps (assorted shallow freshwater).	Unlikely. May occur along quiet reaches of Antelope Creek.
Asteraceae (Compositae)				
<i>Balsamorhiza macrolepis</i> Big-scale balsam-root	Fed: - State: - CNPS: Rank 1B.2	March-June	Cismontane woodland; valley and foothill grassland; [sometimes serpentinite].	None. No suitable habitat present within study area.
Campanulaceae				
<i>Downingia pusilla</i> Dwarf downingia	Fed: - State: - CNPS: Rank 2B.2	March-May	Vernal pools and seasonal wetlands.	None. No suitable habitat present within study area. Site lacks vernal pools.
<i>Legenere limosa</i> Legenere	Fed: - State: - CNPS: Rank 1B.1	April-June	Vernal pools and seasonal wetlands.	None. No suitable habitat present within study area. Site lacks vernal pools.
Juncaceae				
<i>Juncus leiospermus leiospermus</i> Red Bluff dwarf rush	Fed: - State: - CNPS: Rank 1B.1	March-May	Vernal pools and wetland swales.	None. No suitable habitat present within study area. Site lacks vernal pools and vernal swales.
Orobanchaceae				
<i>Chloropyron molle hispidum</i> Hispid salty bird's-beak	Fed: - State: - CNPS: Rank 1B.1	June-September	Meadows; playas; [alkaline]. 1-155m.	None. No suitable habitat present within study area. Site lacks alkaline soils.

Appendix C

Delmar-Pasquetti Potentially-Occurring Special-Status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Plantaginaceae				
<i>Gratiola heterosepala</i> Bogg's Lake hedge-hyssop	Fed: - State: CE CNPS: Rank 1B.2	April-August	Vernal pools.	None. No suitable habitat present within study area. Site lacks vernal pools.
Poaceae (Gramineae)				
<i>Orcuttia viscida</i> Sacramento Valley Orcutt grass	Fed: FE State: CE CNPS: Rank 1B.1	May-June	Vernal pools.	None. No suitable habitat present within study area. Site lacks vernal pools.
Polemoniaceae				
<i>Navarretia myersii myersii</i> Pincushion navarretia	Fed: - State: - CNPS: Rank 1B.1	May-May	Vernal pools.	None. No suitable habitat present within study area. Site lacks vernal pools.

*Status

Federal:
 FE - Federal Endangered
 FT - Federal Threatened
 FPE - Federal Proposed Endangered
 FPT - Federal Proposed Threatened
 FC - Federal Candidate
 FSS - Forest Service Sensitive
 FSW - Forest Service Watchlist

State:
 CE - California Endangered
 CT - California Threatened
 CR - California Rare
 CSC - California Species of
 Special Concern

CNPS (California Native Plant Society - List.RED Code):
 Rank 1A - Extinct
 Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
 Rank 2A- Plants extinct in California, but more common elsewhere
 Rank 2B - Plants rare, threatened, or endangered in California, more common elsewhere
 Rank 3 - Plants about which more information is needed, a review list
 Rank 4 - Plants of limited distribution, a watch list
 RED Code
 1 - Seriously endangered (>80% of occurrences threatened)
 2 - Fairly endangered (20 to 80% of occurrences threatened)
 3 - Not very endangered (<20% of occurrences threatened)

Appendix D.
**Potentially-Occurring Special-Status Animals in the Region of the Delmar-Pasquetti
Study Area**

Appendix D
Delmar-Pasquetti Potentially-occurring Special-status Animals

	Status*	Habitat	Probability on Project Site
Invertebrates			
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Fed: FT State: - Other: -	Vernal pools and other temporary bodies of water in southern and Central Valley of California. Most common in smaller grass or mud bottomed swales or basalt flow depression pools in unplowed grasslands.	None. No suitable habitat (vernal pools) within study area.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	Fed: FE State: - Other: -	Found in vernal pools in the Central Valley of California and in the San Francisco Bay area. Inhabits vernal pools with clear to highly turbid water.	None. No suitable habitat (vernal pools) within study area.
Insects			
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	Fed: FT State: - Other: *	Requires host plant, elderberry (<i>Sambucus nigra</i>) for its life cycle. Shrubs must have live stem diameters at ground level of 1.0 inch or greater. Occurs in Great Valley and lower foothills.	Possible. At least one elderberry shrub occurs along southern property boundary (Antelope Creek), but not detected anywhere else in study area.
Fish			
Steelhead, Central Valley ESU <i>Oncorhynchus mykiss irideus</i>	Fed: FT State: - Other: -	Occurs below man-made impassable barriers in the Sacramento and San Joaquin rivers and tributaries. Adults migrate from ocean to natal freshwater streams to spawn. Yuba River has essentially the only remaining wild steelhead fishery in Central Valley.	Unlikely. Antelope Creek is not on the list of streams in the Dry Creek watershed that are included in critical habitat for the species.
Delta smelt <i>Hypomesus transpacificus</i>	Fed: FT State: CT Other: -	Endemic to the Sacramento-San Joaquin Delta in coastal and brackish waters. Occurs seasonally in Suisun and San Pablo bays. Spawning usually occurs in dead-end sloughs and shallow channels.	None. Site located outside the range of the species (Delta).
Amphibians			
Western spadefoot <i>Spea hammondi</i>	Fed: - State: SSC Other: -	Found primarily in grassland habitats, but may occur in valley and foothill woodlands. Requires vernal pools, seasonal wetlands, or stock ponds for breeding and egg laying. Prefers more turbid pools for predator avoidance.	None. No suitable wet habitats for breeding present within study area.

Appendix D
Delmar-Pasquetti Potentially-occurring Special-status Animals

	Status*	Habitat	Probability on Project Site
California red-legged frog <i>Rana draytonii</i>	Fed: FT State: SSC Other: -	Occurs in lowlands and foothills in deeper pools and slow-moving streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	None. No suitable wet habitat (pools) present within study area.
Reptiles			
Western pond turtle <i>Actinemys marmorata</i>	Fed: - State: SSC Other: -	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying.	Unlikely. Site lacks ponds, but Antelope Creek could be used as a travel corridor.
Giant garter snake <i>Thamnophis gigas</i>	Fed: FT State: CT Other: -	Primarily associated with marshes and sloughs, less with slow-moving creeks, and absent from larger rivers. Nocturnal retreats include mammal burrows and crevices. During the day, basks on emergent vegetation such as cattails and tules.	None. No suitable wet habitat present within study area.
Birds			
White-tailed kite <i>Elanus leucurus</i>	Fed: - State: CFP Other: -	Found in lower foothills and valley margins with scattered oaks and along river bottomlands or marshes adjacent to oak woodlands. Nests in trees with dense tops.	Possible. Tall trees on site may support nesting. Observed flying above the site.
Swainson's hawk <i>Buteo swainsoni</i>	Fed: - State: CT Other: *	Breeds in open areas with scattered trees; prefers riparian and sparse oak woodland habitats. Requires nearby grasslands, grain fields, or alfalfa for foraging. Rare breeding species in Central Valley.	None. No suitable nesting or foraging habitat present within study area.
California black rail <i>Laterallus jamaicensis coturniculus</i>	Fed: - State: CT Other: CFP	Inhabits salt, fresh, and brackish water marshes with little daily and/or annual water fluctuations. In freshwater habitats, preference is for dense bulrush and cattails. Several scattered populations documented from Butte Co. to southern Nevada Co.	None. No suitable nesting habitat present within study area.
Burrowing owl <i>Athene cucularia</i>	Fed: - State: SSC Other: *	Found in annual grasslands. Nests in burrows dug by small mammals, primarily ground squirrels.	None. No suitable nesting habitat (burrows) within study area.

Appendix D
Delmar-Pasquetti Potentially-occurring Special-status Animals

	Status*	Habitat	Probability on Project Site
Purple martin <i>Progne subis</i>	Fed: - State: SSC Other: *	Breeds in riparian woodland, oak woodland, open coniferous forests. Secondary cavity nester. Requires nest sites close to open foraging areas of water or land.	Possible. Potentially suitable nesting habitat may occur within study area. An open field north of the site may provide suitable open areas for foraging.
Bank swallow <i>Riparia riparia</i>	Fed: - State: CT Other: *	Colonial nester near riparian and other lowland habitats. Requires vertical banks or cliffs with fine-textured, sandy soils near streams, rivers, and lakes.	None. No suitable nesting habitat present within study area.
Grasshopper sparrow <i>Ammodramus savannarum</i>	Fed: - State: SSC Other: -	Breeds in grasslands and savannahs in rolling hills and lower mountain hillsides up to 5000 feet elevation.	None. No suitable nesting habitat present within study area.
Tricolored blackbird <i>Agelaius tricolor</i>	Fed: - State: CT Other: CSC	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	None. No suitable nesting habitat. Site lacks adjacent foraging areas near creek.

Mammals

Pallid bat <i>Antrozous pallidus</i>	Fed: - State: SSC Other: *	Occurs in grasslands, woodlands, deserts & urban habitats; open habitat required for foraging. Common in dry habitats with rocky outcrops, cliffs, and crevices for roosting. Roosts include caves, mines, bridges & occasionally hollow trees, buildings.	None. No suitable roosting habitat present within study area.
American badger <i>Taxidea taxus</i>	Fed: - State: CSC Other: -	Occurs in dry, open soils in herbaceous, shrub, and forest habitats. Needs friable, uncultivated soil. Preys on rodents.	None. No suitable habitat present within study area.

Appendix D

Delmar-Pasquetti Potentially-occurring Special-status Animals

Status*	Habitat	Probability on Project Site
<p>*Status Federal:</p> <p>FE - Federal Endangered FT - Federal Threatened FPE - Federal Proposed Endangered FPT - Federal Proposed Threatened FC - Federal Candidate FPD - Federal Proposed for Delisting</p>	<p>State:</p> <p>CE - California Endangered CT - California Threatened CR - California Rare CC - California Candidate CFP - California Fully Protected CSC - California Species of Special Concern</p>	<p>Other:</p> <p>Some species have protection under the other designations, such as the California Department of Forestry Sensitive Species, Bureau of Land Management Sensitive Species, U.S.D.A. Forest Service Sensitive Species, and the Migratory Bird Treaty Act. Raptors and their nests are protected by provisions of the California Fish and Game Code. Certain areas, such as wintering areas of the monarch butterfly, may be protected by policies of the California Department of Fish and Game. WL - CDFG Watch List</p>