

**BIOLOGICAL RESOURCES ASSESSMENT  
FOR THE  
±4.58-ACRE J&S ASPHALT STUDY AREA  
CITY OF ROCKLIN, PLACER COUNTY, CALIFORNIA**



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City of Rocklin, Placer County, California**

## **INTRODUCTION**

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### **Location**

Salix Consulting has conducted a Biological Resource Assessment (BRA) on an ±4.58-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°48'34.21" north and 121°13'12.95" west.

### **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 324 feet in the northeast corner to 280 along the western border. Antelope Creek transects the study area, flowing south from the northern boundary to the southwest corner. A large residential lot is located directly north of the property, while vacant lots are located south, east, and west of the site. Industrial properties are located at its southeast corner (Figure 2).

### **Objectives**

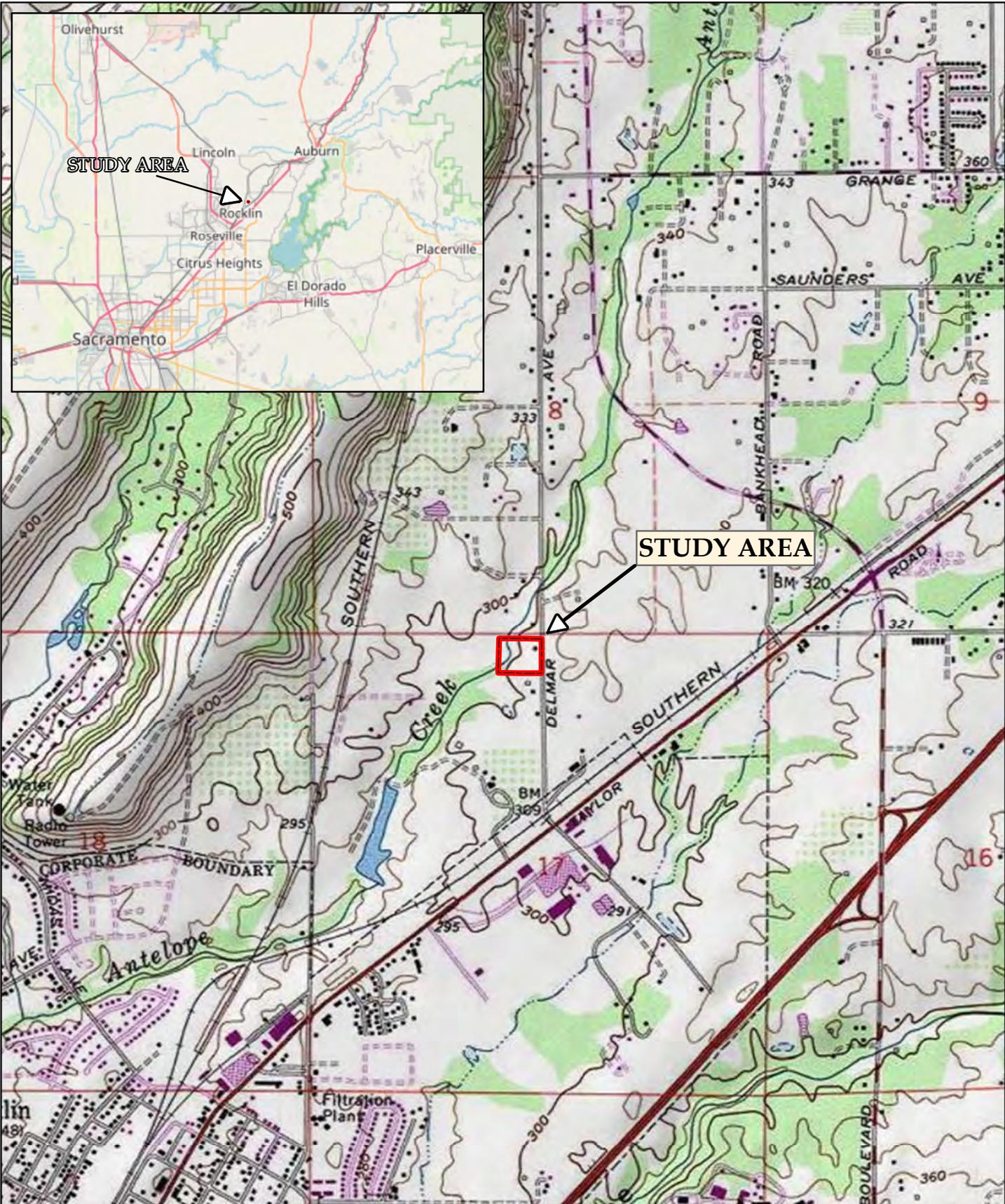
- Identify and describe the biological communities present in the study area
- Record plant and animal species observed in the study area
- Evaluate and identify sensitive resources and special-status plant and animal species that could potentially be affected by project activities
- Provide conclusions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

## **METHODOLOGY**

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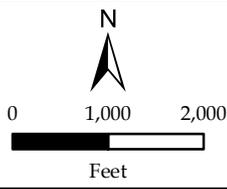
### **Literature Review**

Salix biologists reviewed recent and historic aerial photographs, USGS maps, engineering exhibits, and site maps for the study area, as well as the August 2019 biological resource assessment prepared for a property directly south of the site (Salix 2019). In addition, the site was flown in September 2019 with an unmanned aerial vehicle (UAV) to obtain an orthomosaic aerial photograph as well as 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



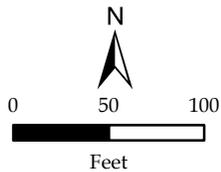
**STUDY AREA**

**STUDY AREA**



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

**Figure 1**  
**SITE AND VICINITY MAP**  
*J & S Asphalt*  
City of Rocklin, Placer County, CA



 Study Area  
(±4.58 acres)

Imagery: 9-11-19 Salix Consulting

**Figure 2**

**AERIAL MAP**

J & S Asphalt  
City of Rocklin, Placer County, CA

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 included the Rocklin, Roseville, Folsom, and Citrus Heights USGS quadrangles. In addition, the California Department of Fish and Wildlife list of Species of Special Concern for the project vicinity was reviewed.

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 September 11 and September 26, 2019 by Principal Biologist Jeff Glazner and Associate Biologist Joelle Soch. During the assessment, biological communities were mapped, and the potential for special-status species to inhabit the property was evaluated.

Plants and animals observed were documented, and representative ground and aerial photographs were taken. Protocol-level surveys to determine the actual presence or absence of potentially-occurring special-status plant and animal species were not conducted. A wetland delineation conforming to U.S. Army Corps of Engineers standards was conducted and is presented under separate cover. Plants observed are listed in Appendix A. 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. Animals observed are listed in the Wildlife Occurrence and Use section below.

## **RESULTS**

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### **Soils**

Two soil units 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). Antelope creek enters the site near its northwest corner and flows south across the western portion of the site. It exits the site near its southwest corner and flows southwesterly for approximately 5 miles before joining Dry Creek. From this 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.

## **Biological Communities**

Six (6) biological communities are identified on the property: annual grassland, ruderal grassland, blackberry scrub, pyracantha hedge, riparian, and oak grove (Table 1 and Figure 3). Imbedded within these communities are areas of wetland, which are summarized in Table 2. Figures 4a and 4b show representative photographs of the site.

**Table 1.**  
**Biological Communities Present within the**  
**J&S Asphalt Study Area**

Biological Community	Approximate Acreage
Annual grassland	0.3
Ruderal grassland	3.3
Blackberry scrub	<0.1
Pyracantha hedge	<0.1
Riparian	0.8
Oak grove	0.2
<b>Total</b>	<b>4.6</b>

***Annual grassland***

The annual grassland is a weedy fallow area supporting mostly annual species. Species common in the annual grassland include ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), yellow star-thistle (*Centaurea solstitialis*), and Italian thistle (*Carduus pycnocephalus*).

***Ruderal grassland***

The majority of the site is in a disturbed state and is mapped as ruderal grassland. This habitat is dominated by weedy annual species adapted to disturbance. Ripgut grass, bermudagrass (*Cynodon dactylon*), common purslane (*Portulaca oleracea*), common knotweed (*Polygonum aviculare*), Spanish lotus (*Acmispon americanus*), ruby sand-spurrey (*Spergularia rubra*), and yellow star thistle are common species in the disturbed areas. A few small interior live oaks (*Quercus wislizeni*) and northern California black walnut (*Juglans hindsii*) are included in the ruderal habitat.

***Blackberry Scrub***

Himalayan blackberry (*Rubus armeniacus*) forms a dense shrub layer in a small portion of the study area in the northwest corner. Other areas of blackberry occur along the Antelope Creek corridor, but those areas are embedded in the riparian habitat.

***Pyracantha hedge***

A hedge along the northern fenceline near the northeastern corner of the site composes a small portion of the study area. The hedge is composed primarily of pyracantha (*Pyracantha sp.*), along with olive (*Olea europaea*), interior live oak, and heavenly bamboo (*Nandina domestica*).

***Riparian***

The riparian corridor along Antelope Creek supports hydrophytic tree and shrub species, including Oregon ash (*Fraxinus latifolia*), valley oak, white alder (*Alnus rhombifolia*), willow (*Salix exigua*, *S. lasiolepis*, *S. gooddingii*), and Himalayan blackberry. Shrub and herbaceous species include South American vervain (*Verbena bonariensis*), California mugwort (*Artemisia douglasiana*), pokeweed (*Phytolacca Americana*), Dallis grass (*Paspalum dilatatum*), and rice cutgrass (*Leersia oryzoides*).

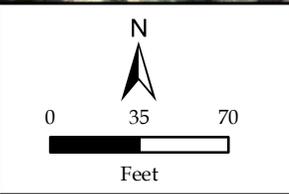


**Habitat Components**

 Perennial Stream

**Habitat Type**

-  Annual Grassland (±0.3 acre)
-  Ruderal Grassland (±3.3 acres)
-  Blackberry Scrub (<0.1 acre)
-  Pyracantha Hedge (<0.1 acre)
-  Riparian (±0.8 acre)
-  Oak Grove (±0.2 acre)



 Study Area (±4.58 acres)

*Imagery: 9-11-19 Salix Consulting*

**Figure 3**

**HABITAT MAP**

*J & S Asphalt*  
City of Rocklin, Placer County, CA



Aerial view of study area looking northeast. *Photo Date 9-11-19.*



Aerial view of riparian corridor in northwest corner of study area. *Photo Date 9-11-19.*



**Figure 4a**

**SITE PHOTOS**

*J&S Asphalt*

City of Rocklin, Placer County, CA



Looking northwest across ruderal grassland area and towards riparian corridor. *Photo Date 9-11-19.*



Looking northwest into riparian corridor in northwest corner of study area. *Photo Date 9-11-19.*



**Figure 4b**

**SITE PHOTOS**

*J&S Asphalt*

City of Rocklin, Placer County, CA

### Oak Grove

Several areas of oak groves occur along the east side of the riparian corridor. These areas are composed of valley oak and interior live oak along with almond (*Prunus dulcis*), cherry plum (*Prunus cerasifera*), northern California walnut (*Juglans hindsii*), and Himalayan blackberry.

### 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 one category of waters of the United States: Perennial Stream (Antelope Creek), totaling 0.25 acre, as summarized in Table 2.

**Table 2.**  
**Waters of the United States present within  
the J&S Asphalt Study Area**

Type	Acreage
<b>Other Waters</b>	
Perennial Stream (Antelope Creek)	0.25

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.

### 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. Species observed during site visits include wild turkey (*Meleagris gallopavo*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), western scrub jay (*Aphelocoma californica*), and northern mockingbird (*Mimus polyglottos*). Tracks and scat of racoon (*Procyon lotor*) and mule deer (*Odocoileus hemionus*) were observed near the creek.

### 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 B lists potentially-occurring special-status plants, and Appendix C lists potentially-occurring special-status animals compiled from the queries described above. The field survey and the best professional judgment of Salix biologists were used to further refine the tables in Appendices B and C. Additionally, CNPS Rank 4 plant species are not considered further in the document. 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 B, 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 \*.

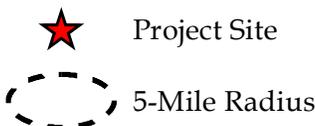
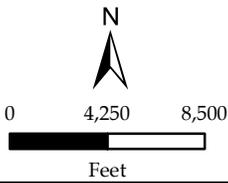
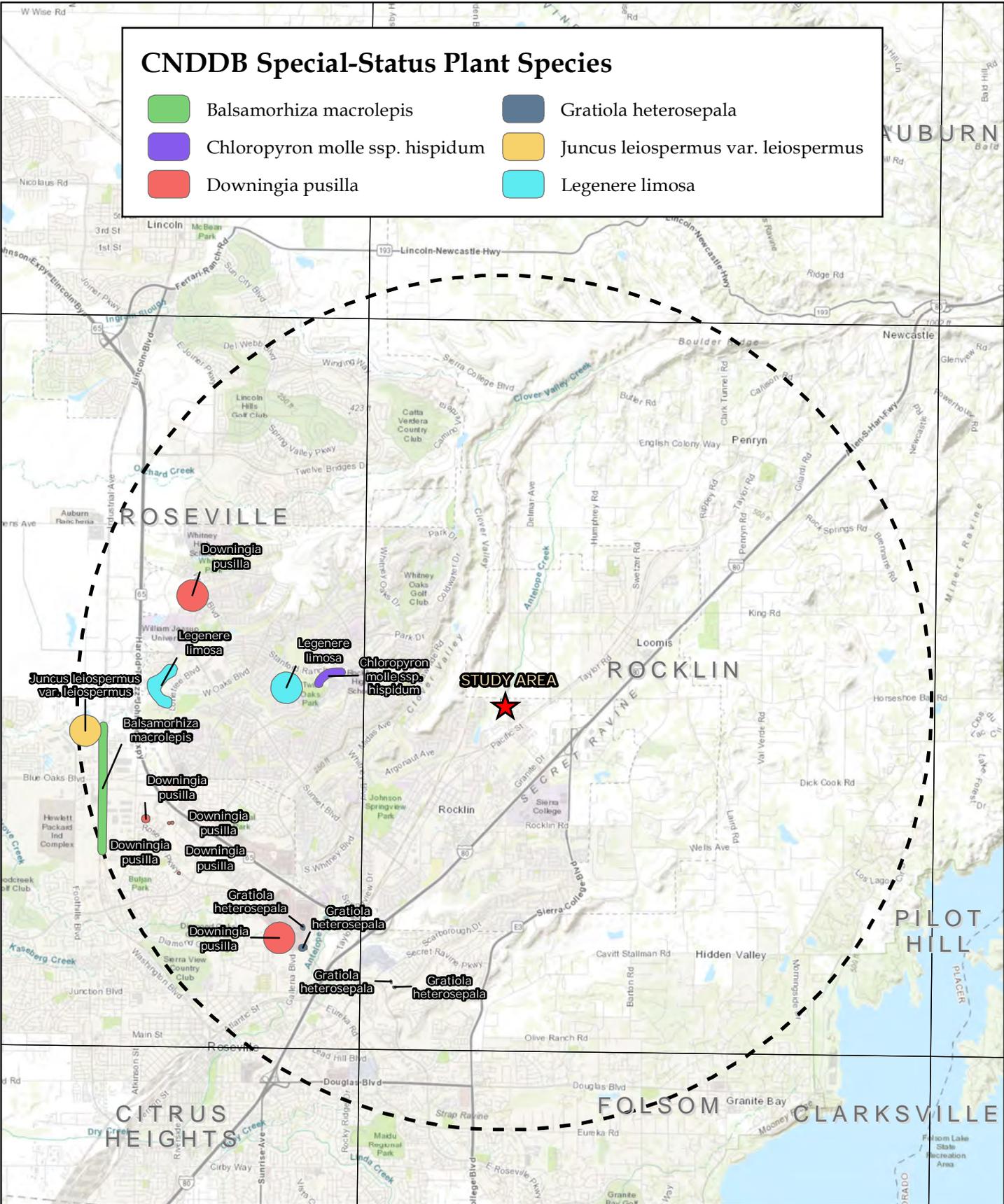
- Dwarf downingia (*Downingia pusilla*)\*
- Legenere (*Legenere limosa*)\*
- Red Bluff dwarf rush (*Juncus leiospermus leiospermus*)\*
- Bogg's Lake hedge-hyssop (*Gratiola heterosepala*)\*
- Sacramento Valley Orcutt grass (*Orcuttia viscida*)
- Pincushion navarretia (*Navarretia myersii myersii*)

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 B, 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.

# CNDDDB Special-Status Plant Species

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



**Figure 5a**  
**CNDDDB OCCURRENCES MAP**  
*J&S Asphalt*  
 City of Rocklin, Placer County, CA

**Table 3.**  
**Special-Status Plant Species Determined to Have Some Potential to Occur**  
**within the J&S Asphalt Study Area**

Species	Status*			Habitat	Potential for Occurrence Within Study Area**
	Federal	State	CNPS		
<b>Sanford's arrowhead</b> <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 B have special habitat requirements not found within the J&S Asphalt 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 C, nine (9) species were identified as occurring within the surrounding region (generally within a 5-mile radius of the study area) (Figure 5b).

Fifteen (15) of these 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.

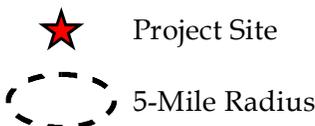
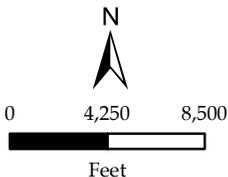
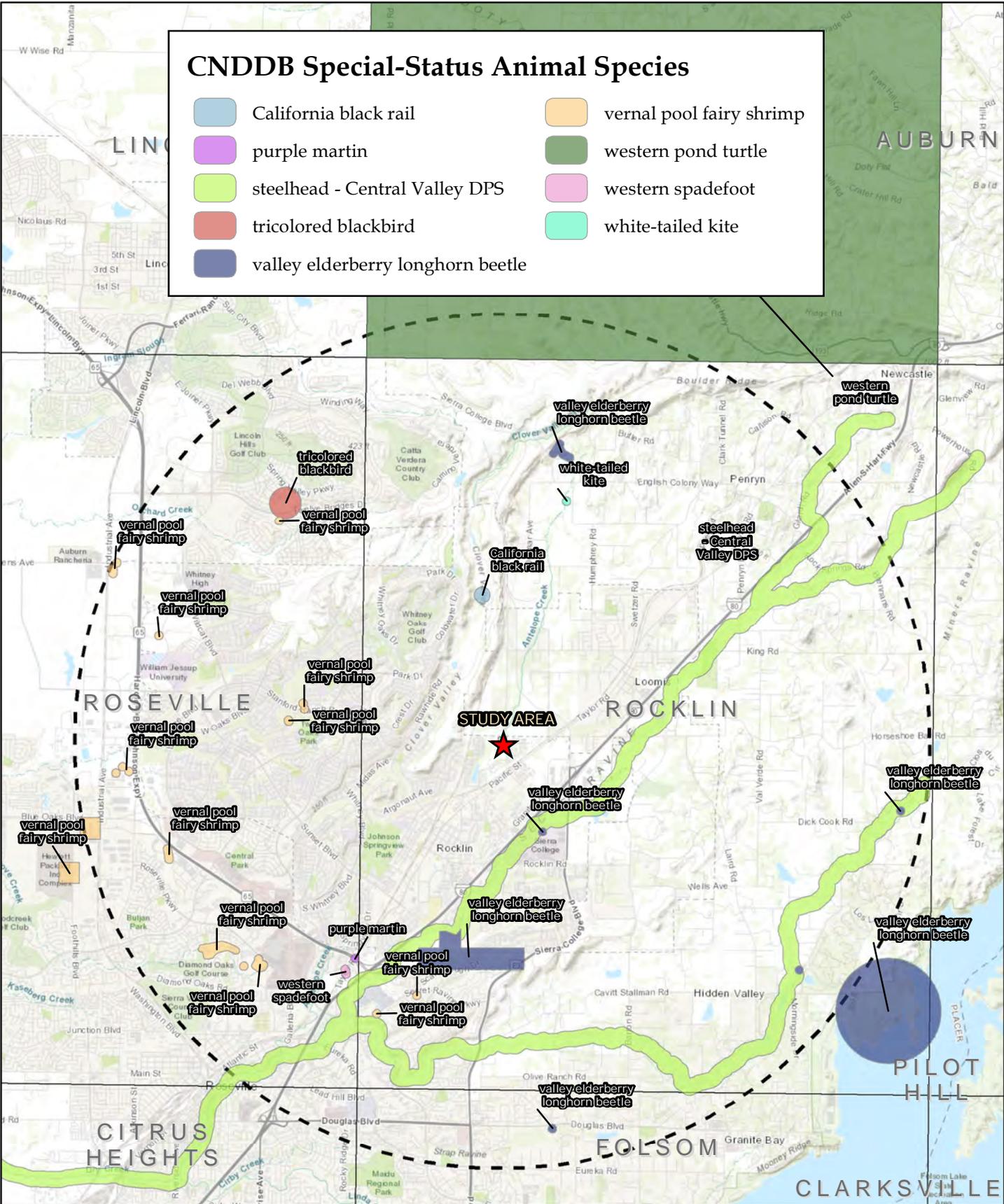
The following species have no potential to occur due to the lack of vernal pools, wetlands, marshes, and similar aquatic habitats:

- 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).

# 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



**Figure 5b**  
**CNDDDB OCCURRENCES MAP**  
*J&S Asphalt*  
 City of Rocklin, Placer County, CA

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 coturniculus*)\*
- 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.

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)\* has no potential to occur because the study area lacks any occurrence of its host plant (elderberry shrub).

Four (4) animal species were determined to have some potential to occur within the study area (Appendix C). 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 J&S Asphalt Study Area**

Species	Status* Federal    State	Habitat	Potential for Occurrence Within Study Area**
<b>Fish</b>			
<b>Steelhead, Central Valley ESU</b> <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.
<b>Reptiles</b>			
<b>Western pond turtle</b> <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. 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).
			Unlikely. Site lacks ponds, but Antelope Creek could be used as a travel corridor.

Species	Status* Federal State		Habitat	Potential for Occurrence Within Study Area**
<b>Birds</b>				
<b>White-tailed kite</b> <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.
<b>Purple martin</b> <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: <b>Federal</b> FT Federal Threatened <b>State</b> CFP California Fully-protected SSC California Species of Concern			<b>**Definitions for the Potential to Occur:</b> <b>Unlikely:</b> Minimal or marginal quality habitat in the study area. <b>Possible.</b> Suitable habitat occurs within the study area. <b>Likely.</b> Study area provides desirable habitat for species and there is a very high probability for its occurrence. <b>Observed:</b> Species was observed within the study area.	

## Wildlife

**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, and they are not assumed to be present. Additionally, it is unlikely that any special-status anadromous fish occur in Antelope Creek upstream of the project site due impediments such as a large earthen dam, located approximately three-quarters mile southwest of the site. This impoundment would prevent fish from traveling upstream to spawn. 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 a 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. Due to the presence of suitable nesting habitat within the study area, it is possible that white-tailed kite may occur. It was not observed during the 2019 site assessments, but the site assessments were outside of the nesting season.

**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 east of the study area. Therefore, it is possible that purple martin may nest within the study area. It was not observed during the 2019 site assessments, but the site assessments were outside of the nesting season.

## RECOMMENDED MITIGATION MEASURES

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### Waters of the United States

The J&S Asphalt 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 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 with 5 days of construction initiation to determine if turtles are wandering about in 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 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.

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**Appendix A.**  
**Plant Species Observed Within the J&S Asphalt Study Area**

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## Appendix A

### J&S Asphalt - Plants Observed - September 2019

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#### Gymnosperms

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##### Pinaceae - Pine Family

*\*Pinus sp.* Ornamental Pine

#### Angiosperms - Dicots

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##### Asteraceae (Compositae) - Sunflower Family

*Artemisia douglasiana* California mugwort  
*\*Carduus pycnocephalus* Italian thistle  
*\*Centaurea solstitialis* Yellow starthistle  
*\*Chondrilla juncea* Skeleton weed  
*\*Cichorium intybus* Chicory  
*\*Dittrichia graveolens* Stinkwort  
*Erigeron canadensis* Canadian horseweed  
*\*Lactuca serriola* Prickly lettuce  
*\*Silybum marianum* Milk thistle

##### Berberidaceae - Barberry Family

*Nandina domestica* Heavenly bamboo

##### Betulaceae - Birch Family

*Alnus rhombifolia* White alder

##### Bignoniaceae - Bignonia Family

*\*Catalpa sp.* Catalpa

##### Caryophyllaceae - Pink Family

*\*Spergularia rubra* Ruby sand-spurrey

##### Euphorbiaceae - Spurge Family

*Croton setiger* Turkey mullein

##### Fabaceae (Leguminosae) - Legume Family

*Acmispon americanus* Spanish lotus  
*\*Genista monosperma* Bridal veil broom  
*\*Trifolium hirtum* Rose clover  
*\*Vicia villosa* Winter vetch

##### Fagaceae - Oak Family

*Quercus lobata* Valley oak  
*Quercus wislizeni* Interior live oak

##### Juglandaceae - Walnut Family

*Juglans hindsii* Northern California black walnut

##### Montiaceae - Miner's Lettuce Family

*Calandrinia breweri* Brewer's calandrinia  
*Calandrinia menziesii* Red maids

##### Oleaceae - Olive Family

*Fraxinus latifolia* Oregon ash

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\* Indicates a non-native species

* <i>Fraxinus sp.</i>	Ash
* <i>Olea europaea</i>	Olive
<b>Onagraceae - Evening Primrose Family</b>	
<i>Epilobium ciliatum</i>	Hairy willow-herb
<b>Phytolaccaceae - Pokeweed Family</b>	
* <i>Phytolacca americana var. americana</i>	Pokeweed
<b>Plantaginaceae - Plantain Family</b>	
* <i>Kickxia elatine</i>	Sharppoint fluvellin
* <i>Plantago lanceolata</i>	English plantain
<b>Polygonaceae - Buckwheat Family</b>	
<i>Persicaria lapathifolia</i>	Willow weed
* <i>Polygonum aviculare</i>	Common knotweed
* <i>Rumex acetosella</i>	Sheep sorrel
<b>Portulacaceae - Purslane Family</b>	
* <i>Portulaca oleracea</i>	Common purslane
<b>Rosaceae - Rose Family</b>	
* <i>Prunus cerasifera</i>	Cherry plum
* <i>Prunus dulcis</i>	Almond tree
* <i>Pyracantha sp.</i>	Pyracantha
<i>Rosa californica</i>	California rose
* <i>Rubus armeniacus</i>	Himalayan blackberry
<b>Salicaceae - Willow Family</b>	
<i>Salix exigua</i>	Narrow-leaved willow
<i>Salix gooddingii</i>	Goodding's black willow
<i>Salix laevigata</i>	Red willow
<i>Salix lasiolepis</i>	Arroyo willow
<b>Scrophulariaceae - Figwort Family</b>	
* <i>Verbascum blattaria</i>	Moth mullein
* <i>Verbascum thapsus</i>	Woolly mullein
<b>Solanaceae - Nightshade Family</b>	
* <i>Nicotiana acuminata var. multiflora</i>	Manyflower tobacco
<b>Verbenaceae - Vervain Family</b>	
* <i>Verbena bonariensis</i>	South American vervain

## Angiosperms - Monocots

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### Cyperaceae - Sedge Family

<i>Carex barbarae</i>	Whiteroot sedge
<i>Cyperus eragrostis</i>	Tall flatsedge

### Juncaceae - Rush Family

<i>Juncus balticus</i>	Baltic rush
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### Poaceae (Gramineae) - Grass Family

* <i>Aira caryophyllea</i>	Silver European hairgrass
* <i>Avena fatua</i>	Wild oat
* <i>Bromus diandrus</i>	Ripgut grass
* <i>Bromus hordeaceus</i>	Soft chess
* <i>Cynodon dactylon</i>	Bermudagrass
* <i>Digitaria sanguinalis</i>	Hairy crabgrass

\* Indicates a non-native species

*\*Leersia oryzoides*  
*\*Paspalum dilatatum*

Rice cutgrass  
Dallis grass

**Appendix B.**  
**Potentially-Occurring Special-Status Plants in the Region of the J&S Asphalt Study Area**

**Appendix B**  
**J&S Asphalt- Potentially-occurring Special-status Plants**

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
<b>Alismataceae</b>				
<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.
<b>Asteraceae (Compositae)</b>				
<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.
<b>Campanulaceae</b>				
<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.
<b>Juncaceae</b>				
<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.
<b>Orobanchaceae</b>				
<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

### J&S Asphalt- Potentially-occurring Special-status Plants

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

#### \*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 C.**  
**Potentially-Occurring Special-Status Animals in the Region of the J&S Asphalt Study**  
**Area**

**Appendix C**  
**J&S Asphalt Potentially-Occuring Special-Status Animals**

	Status*	Habitat	Probability on Project Site
<b>Invertebrates</b>			
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.
<b>Insects</b>			
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.	None. No suitable habitat (Elderberry plants) within study area.
<b>Fish</b>			
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).
<b>Amphibians</b>			
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**  
**J&S Asphalt Potentially-Occuring 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.
<b>Reptiles</b>			
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.
<b>Birds</b>			
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 coturnculus</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

### J&S Asphalt Potentially-Occuring 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

### J&S Asphalt Potentially-Occuring Special-Status Animals

	Status*	Habitat	Probability on Project Site
<b>*Status</b>	Federal: FE - Federal Endangered FT - Federal Threatened FPE - Federal Proposed Endangered FPT - Federal Proposed Threatened FC - Federal Candidate FPD - Federal Proposed for Delisting	State: CE - California Endangered CT - California Threatened CR - California Rare CC - California Candidate CFP - California Fully Protected CSC - California Species of Special Concern	Other: 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