

Appendix D

Biological Resources Data

Species Observed within the RSP Area 2015

SPECIES OBSERVED WITHIN THE RSP AREA 2015

Scientific Name	Common Name
<i>Acacia melanoxylon</i>	black acacia
<i>Acer negundo</i>	box elder
<i>Ailanthus altissima</i>	tree of heaven
<i>Avena fatua</i>	oat
<i>Baccharis pilularis</i>	coyote brush
<i>Brassica sp.</i>	mustard
<i>Bromus diandrus</i>	rip-gut brome
<i>Bromus hordeaceus</i>	soft chess
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Cardiis pynocephalus</i>	italian thistle
<i>Centauries solstitialis</i>	yellow star thistle
<i>Cephalanthus occidentalis</i>	California buttonbrush
<i>Charadrius vociferus</i>	killdeer
<i>Convolvulus arvensis</i>	field bindweed
<i>Cynodon dactylon</i>	Bermuda grass
<i>Dittrichia graveolens</i>	stinkwort
<i>Erigeron sp.</i>	fleabane
<i>Eucalyptus globulus</i>	blue gum
<i>Ficus carica</i>	common fig
<i>Fraximus latifolia</i>	Oregon ash
<i>Geranium dissectum</i>	cutleaf geranium
<i>Heterotheca sessilidflora</i>	golden aster
<i>Holocarpha sp.</i>	tarweed
<i>Juglans hinsii</i>	northern California black walnut
<i>Juglans regia</i>	English walnut
<i>Lactuca serriola</i>	prickley lettuce
<i>Lepus californicus</i>	black-tailed jack rabbit
<i>Malva sp.</i>	malva
<i>Mimus polyglottos</i>	northern mocking bird
<i>Nerium sp.</i>	oleander
<i>Nicotiana glauca</i>	tobacco bush
<i>Pistacia chinensis</i>	Chinese pistache
<i>Platanus racemosa</i>	California sycamore
<i>Polypogon monsepeleensis</i>	rabbit's foot grass
<i>Populus fremontii</i>	Fremont cottonwood
<i>Prunus sp.</i>	cherry

SPECIES OBSERVED WITHIN THE RSP AREA 2015

Scientific Name	Common Name
<i>Quercus lobata</i>	valley oak
<i>Quercus wislizeni</i>	interior live oak
<i>Quercus suber</i>	cork oak
<i>Rubus</i>	Himalayan blackberry
<i>Salix exigua</i>	narrow leaf willow
<i>Salix interior</i>	sandbar willow
<i>Salix lasiolepis</i>	arroyo willow
<i>Salix nigra</i>	black willow
<i>Sambucus caerulea</i>	elderberry
<i>Silbum marianum</i>	milkthistle
<i>Ulmus parvifolia</i>	Chinese elm
<i>Vitis californica</i>	California wild grape
<i>Zenaida macroura</i>	mourning dove
<i>Columba livia</i>	rock dove

Special-Status Species with the Potential to Occur within the RSP Area

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Invertebrates				
<i>Andrena subapasta</i>	an andrenid bee	--/--/--	Collects pollen primarily from <i>Arenaria californica</i> but also <i>Orthocarpus erianthus</i> & <i>Lasthenia</i> sp.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp	FE/--/--	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within two miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	FT/--/--	Vernal pools and other seasonal wetlands in open grassland habitat.	Unlikely. No suitable habitat for this species within the RSP Area. Species known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Branchinecta mesovallensis</i>	Midvalley fairy shrimp	--/--/--	Vernal pools in the Central Valley.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within two miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Cicindela hirticollis abrupta</i>	Sacramento Valley tiger beetle	--/--/--	Sandy floodplain habitat in the Sacramento valley. Requires fine to medium sand, terraced floodplains or low sandy water edge flats.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	FT/--/--	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	High. Several elderberry shrubs and shrub clusters are known to occur within or directly adjacent to the RSP Area. A few elderberry shrub clusters occur along 12 th Street, just south of N. B Street; one shrub occurs on the southern portion of the RSP Area, near 6 th and F Streets, and one shrub occurs just outside of the project footprint on the northwest corner of the RSP Area between Bercut Drive and the I-5 right of way. CNDDDB records show several occurrences of valley elderberry longhorn beetle along the Sacramento and American River within one mile of the RSP Area. No elderberry shrubs were observed within Valley Foothill Riparian habitat along the Sacramento River on the western side of the RSP Area.

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Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
<i>Dumontia oregonensis</i>	Hairy water flea	--/--/--	Vernal pools. In California, known only from Mather Field.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Hydrochara rickseckeri</i>	Ricksecker's water scavenger beetle	--/--/--	Natural history of this aquatic species is not well known. Regionally, it is known to occur in Mather Field Regional Park.	Unlikely. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Lepidurus packardi</i>	Vernal pool tadpole shrimp	FE/--/--	Vernal pools and other seasonal wetlands in open grassland habitat.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Linderiella occidentalis</i>	California linderiella	--/--/--	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.	Unlikely. No suitable habitat for this species within the RSP Area. Species known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Myrmosula pacifica</i>	Antioch multilid wasp	--/--/--	Natural history of this species is not well known.	Unlikely. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Reptiles				
<i>Emys marmorata</i>	Western pond turtle	FSC/CSC/None	Streams, rivers, ponds, marshes and other aquatic habitats. Requires secure basking area where they can easily escape to water. Upland nesting sites can be as much as 300 feet from aquatic habitat, but are usually closer.	Medium. The Sacramento River provides suitable aquatic habitat. While the constructed basin onsite provides suitable aquatic and upland habitat, western pond turtle is unlikely to occur. Potential for occurrence in the constructed basin is low due to its recent construction in 2013, its isolation from the Sacramento River, or other suitable aquatic sites.
<i>Thamnophis gigas</i>	giant garter snake	FT/ST/--	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals & irrigation ditches. This is the most aquatic of the garter snakes in California.	Unlikely. No suitable habitat present within the RSP. Giant garter snake is not known to occur south of the American River and east of the Sacramento River in the vicinity of the RSP Area. This species was not observed during reconnaissance surveys.

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Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Amphibians				
<i>Ambystoma californiense</i>	California tiger salamander	FT/CT/--	Grassland, oak savanna, and edges of mixed woodland and lower elevation coniferous forest. Requires temporary breeding ponds to breed. Spends most time underground in animal burrows, especially those of California ground squirrels, valley pocket gophers, and moles. Requires both suitable upland terrestrial habitat with mammal burrows for refuge and temporary breeding ponds in order to survive and reproduce.	Unlikely. No suitable habitat present within the RSP. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Rana draytonii</i>	California red-legged frog	FT/CSC/--	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Frequently found in woods adjacent to streams. Breeding habitat is in permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Spea hammondi</i>	Western spadefoot	--/CSC/--	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Fish				
<i>Archoplites interruptus</i>	Sacramento perch	--/CSC/--	Historically found in the sloughs, slow-moving rivers, and lakes of the central valley. Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of Physio-chemical water conditions.	Unlikely. Extirpated from the Sacramento River. Populations may exist in farm ponds and reservoirs, but no instream populations remain.
<i>Hypomesus transpacificus</i>	Delta smelt	FT/CT/-	Occurs in Sacramento-San Joaquin Delta most of the year. Spawns in tidally influenced freshwater wetlands and seasonally submerged uplands along the Sacramento River, downstream from its confluence with the American River.	Medium. No suitable habitat exists within the project boundaries. However, adult delta smelt are known to occur in the Sacramento River as far upstream as its confluence with the American River. As of 1993, delta smelt were known to spawn in the Sacramento River as far upstream as the City of Sacramento.

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<i>Spirinchus thaleichthys</i>	Longfin smelt	FT/CSC/--	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per thousand, but can be found in completely freshwater to almost pure seawater.	Unlikely. Potential suitable habitat within the Sacramento River. However, this species is known to spawn as far upstream as Isleton in the Sacramento River, approximately 35 miles south of the RSP Area.
<i>Oncorhynchus mykiss</i>	Central Valley steelhead	FT/--/--	Requires cold, freshwater streams with suitable gravel for spawning; rears seasonally inundated floodplains, rivers, tributaries, and Delta.	High. No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
<i>Oncorhynchus tshawytscha</i>	Central Valley spring-run Chinook salmon	FT/CT/--	Requires cold, freshwater streams with suitable gravel for spawning; rears seasonally inundated floodplains, rivers, tributaries, and Delta.	High. No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
<i>Oncorhynchus tshawytscha</i>	Sacramento River winter-run Chinook salmon	FE/CE/--	Requires cold, freshwater streams with suitable gravel for spawning; rears seasonally inundated floodplains, rivers, tributaries, and Delta.	High. No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
<i>Oncorhynchus tshawytscha</i>	Central Valley fall-/late fall-run Chinook salmon	--/CSC/--	Requires cold, freshwater streams with suitable gravel for spawning; rears seasonally inundated floodplains, rivers, tributaries, and Delta.	High. No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
<i>Pogonichthys macrolepidotus</i>	Sacramento spittail	--/CSC/--	Spawning and juvenile rearing from winter to early summer in shallow weedy areas inundated during seasonal flooding in the lower reaches and flood bypasses of the Sacramento River including the Yolo Bypass.	High. No suitable habitat exists within the project boundaries. However, suitable habitat exists within the Sacramento River adjacent to the RSP Area.
<i>Acipenser medirostris</i>	Southern distinct population segment North American green sturgeon	FT/--/--	Requires cool, freshwater streams with suitable substrate for spawning; rears in rivers, tributaries, and Delta.	High. No suitable habitat exists within the project boundaries. However, suitable migration habitat exists within the Sacramento River adjacent to the RSP Area.
Birds				
<i>Accipiter cooperi</i>	Cooper's hawk	--/WL/--	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Low. The site does not support relatively dense stands of mature trees typically used for nesting.

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<i>Agelaius tricolor</i>	Tricolored blackbird	--/CSC/--	Highly colonial species, most numerous in central valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, & foraging area with insect prey within a few km of the colony.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Ammodramus savannarum</i>	Grasshopper sparrow	--/CSC/--	Dense grasslands on rolling hills, lowland plains, in valleys & on hillsides on lower Mountain slopes. Favors native grasslands with a mix of grasses, forbs & scattered shrubs. Loosely colonial when nesting.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Aquila chrysaetos</i>	Golden eagle	--/FP/--	Rolling foothills, mountain areas, sage-juniper flats, & desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Ardea alba</i>	Great egret	--/--/--	Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers And lakes.	Low. No suitable nesting or foraging habitat for this species within the RSP Area; however, potential nesting habitat occurs along the Sacramento River. Species recorded in the CNDDB within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Ardea herodias</i>	Great blue heron	--/--/--	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Low. No suitable nesting or foraging habitat for this species within the RSP Area; however, potential nesting habitat occurs along the Sacramento River. Species recorded in the CNDDB within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Athene cunicularia</i>	burrowing owl	--/CSC/--	Forages in open plains, grasslands, and prairies; typically nests in abandoned small mammal burrows.	Low. The site provides potential foraging habitat for this species; however, no ground squirrel burrows or other suitable nesting habitat was observed during the 2015 reconnaissance. This species was not observed during the reconnaissance.
<i>Buteo regalis</i>	Ferruginous hawk	--/WL/--	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and Juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Buteo swainsoni</i>	Swainson's hawk	--/ST/--	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Medium. Suitable nest trees are present along the Sacramento River. Open areas of the project site and patchy ruderal vegetation provides limited foraging opportunities for this species.

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<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	FT/CSC/--	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Charadrius montanus</i>	Mountain plover	--/CSC/--	Short grasslands, freshly plowed fields, newly sprouting grain fields, & sometimes sod Farms. Short vegetation, bare ground & flat topography. Prefers grazed areas & areas with burrowing rodents.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	FT/CE/--	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Egretta thula</i>	Snowy egret	--/--/--	Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	Low. No suitable nesting or foraging habitat for this species within the RSP Area; however, potential nesting habitat occurs along the Sacramento River. Species not recorded in the CNDDDB within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Elanus leucurus</i>	white-tailed kite	--/FP/--	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Medium. Suitable nest trees are present along the Sacramento River. Open areas of the project site and patchy ruderal vegetation provides marginal foraging habitat for this species.
<i>Falco columbarius</i>	Merlin	--/WL/--	Nest in forested openings, edges, and along rivers. May also nest in towns and cities (using crow nests in conifers planted in residential areas, schoolyards, parks, and cemeteries). During migration and winter, this species can be seen using open forest, grassland, and coastal areas.	Low. Species does not breed in California; breeds in Alaska and Canada. Uncommon winter migrant from September to May. Open areas of the project site and patchy ruderal vegetation provides marginal foraging habitat for this species.
<i>Melospiza melodia</i>	Song sparrow ("Modesto" population)	--/CSC/--	Prefers open habitat, including marsh edges, overgrown fields, backyards, desert washes, and forest edges. Commonly visit bird feeders and build nests in residential areas.	Unlikely. No suitable habitat for this species within the RSP Area. No recent occurrences recorded within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

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Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
<i>Nycticorax nycticorax</i>	Black-crowned night heron	--/--/--	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	Unlikely. No suitable nesting or foraging habitat for this species within the RSP Area. No recent occurrences recorded within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Phalacrocorax auritus</i>	Double-crested cormorant	--/WL/--	Colonial nester on coastal cliffs, offshore islands, & along lake margins in the interior of The state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Low. No suitable habitat for this species within the RSP Area; however, species may use the Sacramento River. No recent occurrences recorded within five miles of the RSP Area. This species was observed in the Sacramento River during reconnaissance surveys.
<i>Plegadis chihi</i>	White-faced ibis	--/WL/--	Shallow fresh-water marsh. Dense tule thickets for nesting interspersed with areas of shallow water for foraging.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Progne subis</i>	purple martin	--/ CSC /--	Inhabits woodlands, low elevation coniferous forest of Douglas-fir (<i>Pseudotsuga menziesii</i>), ponderosa pine (<i>Pinus ponderosa</i>), and Monterey pine (<i>Pinus radiata</i>). Nests primarily in old woodpecker cavities, also in human-made structures. Nest often located in tall, isolated tree/snag.	High. Known occurrence identified in the CNDDDB at the I-Street Bridge and elevated structure of I-5 in the vicinity of the Railroad Museum.
<i>Riparia riparia</i>	Bank swallow	--/CT/--	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Unlikely. No suitable habitat for this species within the RSP Area. Species known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE/CE/--	Inhabits dense, low, scrub habitat, generally early successional stages in riparian areas, brushy fields, young second-growth forest or woodland, scrub oak, coastal chaparral, and mesquite brushlands, often near water in arid regions. Species is a summer resident of southern California in low riparian in vicinity of water or in dry river bottoms.	Low. Species is known to occur along South Fork Putah Creek, Putah Creek, Putah Creek sinks, in the vicinity of the Yolo Bypass Wildlife Area and was last observed in 2011. ¹ There is one presumably extant record from 1877 in West Sacramento; however, no recent populations or observations were recorded within five miles of the RSP Area.

¹ California Department of Fish and Wildlife (CDFW). 2015a. California Natural Diversity Database (CNDDDB) RareFind 5 personal computer program. <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>. Accessed on: September 8, 2015.

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<i>Xanthocephalus xanthocephalus</i>	Yellow-headed blackbird	--/CSC/--	Nests in freshwater emergent wetlands with dense vegetation & deep water. Often along Borders of lakes or ponds. Nests only where large insects such as <i>Odonata</i> are abundant, nesting timed with maximum emergence of aquatic insects.	Unlikely. No suitable nesting or foraging habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
Mammals				
<i>Antrozous pallidus</i>	Pallid bat	--/CSC/--	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Medium. No suitable roosting habitat for this species within the RSP Area; specifically under the I Street Bridge, the elevated structure of I-5, and within the historic train depot buildings associated with the Central Shops Historic District and the Sacramento Valley Station. ² No CNDDDB record of species within five miles of the RSP Area. ³ This species was not observed during reconnaissance surveys.
<i>Lasionycteris noctivagans</i>	Silver-haired bat	--/--/--	Primarily a coastal & montane forest dweller feeding over streams, ponds & open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes & rarely under rocks. Needs drinking water.	Low. Species range typically includes coastal and montane forests from the Oregon border south along the coast to San Francisco Bay and along the Sierra Nevada and Great Basin region to Inyo County. It is unlikely to occur in the RSP Area. Species not known to occur within five miles of the RSP Area. Species may be present during migration in the Sacramento Area. This species was not observed during reconnaissance surveys.

² City of Sacramento. 2007. Railyards Specific Plan Environmental Impact Report. Certified December 11, 2007.

³ California Department of Fish and Wildlife (CDFW). 2015a. California Natural Diversity Database (CNDDDB) RareFind 5 personal computer program. <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>. Accessed on: September 8, 2015.

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<i>Lasiurus blossevillii</i>	Western red bat	--/CSC/--	Preferred roosting habitat includes forests and woodlands. Feeds over grassland, shrubland, open woodland, forests, and cropland	High. Species was documented in the vicinity of RSP Area.4
<i>Lasiurus cinereus</i>	hoary bat	--/--/--	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths.	Medium. Species may roost within riparian habitat along the Sacramento River and forage within the RSP Area. Recorded occurrence in West Sacramento, west of the RSP Area and the Sacramento River.
<i>Myotis yumanensis</i>	Yuma myotis	--/--/--	Prefers open forests and woodlands with sources of water over which to feed. Roosts in buildings, mines, caves, and crevices.	High. Species was documented in the vicinity of the RSP Area.5
<i>Taxidea taxus</i>	American badger	--/CSC/--	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with Friable soils. Needs sufficient food, friable soils & open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low. No significant burrowing rodents observed in the RSP Area sufficient to support species. Evidence of species presence (burrows, prints, and scat) not observed during reconnaissance. Nearest recorded occurrence is located approximately four miles southeast of the RSP Area.
Plants				
<i>Astragalus pauperculus</i>	Depauperate milk-vetch	--/--/4.3	Alkali playa, valley and foothill grassland, vernal pools. low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 1-170m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Ferris' milk-vetch	--/--/1B.1	Meadows, valley and foothill grassland. subalkaline flats on overflow land in the central valley; usually seen in dry, adobe soil. 5-75m.	Unlikely. No suitable habitat for this species within the RSP Area. Species known to occur in the Yolo Bypass area, within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Astragalus tener</i> var. <i>tener</i>	Alkali milk-vetch	--/--/1B.2	Alkali playa, valley and foothill grassland, vernal pools. low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 1-170m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

⁴ California Department of Transportation, 2016. I Street Bridge Replacement Project Natural Environment Study. Sacramento and Yolo Counties, Federal Project No.: BRLS 5002(164). February.

⁵ California Department of Transportation, 2016. I Street Bridge Replacement Project Natural Environment Study. Sacramento and Yolo Counties, Federal Project No.: BRLS 5002(164). February.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
<i>Atriplex cordulata</i> var. <i>cordulata</i>	Heartscale	--/--/1B.2	Chenopod scrub, valley and foothill grassland, meadows, alkaline flats and scalds in the central valley, sandy soils. 0-560 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Atriplex depressa</i>	Brittlescale	--/--/1B.2	Chenopod scrub, meadows, playas, valley and foothill grassland, vernal pools. usually in alkali scalds or alkaline clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools. 1-320 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Carex comosa</i>	Bristly sedge	--/--/2B.1	Marshes and swamps. Lake margins, wet places; site below sea level is on a Delta island. -5-1005m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Centromadia parryi</i> subsp. <i>rudis</i>	Parry's rough tarplant	--/--/4.2	Alkaline, vernal mesic, seeps, sometimes roadsides. Valley and foothill grassland, vernal pools. 0-100 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Chloropyron palmatum</i>	Palmate-bracted bird's beak	FE/CE/1B.1	Chenopod scrub, valley and foothill grassland. Usually on Pescadero silty clay which is alkaline, with <i>Distichlis</i> , <i>Frankenia</i> , etc. 5-155 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	--/--/2B.2	Marshes and swamps (freshwater). Freshwater marsh. 15-280 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Downingia pusilla</i>	Dwarf downingia	--/--/2B.2	Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. in several types of vernal pools. 1-445 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Extriplex joaquinana</i>	San Joaquin spearscale	--/--/1B.2	Chenopod scrub, alkali meadow, playas, valley and foothill grassland.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Fritillaria agrestis</i>	Stinkbells	--/--/4.2	Cismontane woodland, chaparral, valley and foothill grassland. sometimes on serpentine; mostly found in nonnative grassland or in grassy openings in clay soil. 10-1555 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	FE/--/1B.2	Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 10-2375 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Hesperevax caulescens</i>	Hogwallow starfish	--/--/4.2	Valley and foothill grassland (mesic, clay), vernal pools (shallow). 0-505 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	Wooly rose-mallow	--/--/1B.2	Marshes and swamps (freshwater). Moist, freshwater-soaked river banks & low peat islands in sloughs; can also occur on riprap and levees. In California, known from the Delta watershed. 0-120 m.	Low. No suitable habitat for this species within the RSP Area. Suitable habitat may occur along the Sacramento River. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Juglans hindsii</i>	Northern California black walnut	--/--/1B.1	Riparian forest, riparian woodland. Few extant native stands remain; widely naturalized. Deep alluvial soil associated with a creek or stream. 0-440 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was observed during reconnaissance surveys; however, no native stands were observed.
<i>Juncus leiospermus</i> var. <i>ahartii</i>	Ahart's dwarf rush	--/--/1B.2	Vernal pools, valley and foothill grassland. Restricted to the edges of vernal pools. 30-229 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Legenere limosa</i>	Legenere	--/--/1B.1	Vernal pools. In beds of vernal pools. 1-880 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Lepidium latipes</i> var. <i>heckardii</i>	Heckard's pepper-grass	--/--/1B.2	Valley and foothill grassland. Grassland, and sometimes vernal pool edges. Alkaline soils. 2-200 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	--/--/1B.1	Freshwater and brackish marshes, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. 0-10 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Myosurus minimus</i> subsp. <i>apus</i>	Little mouse-tail	--/--/3.1	Valley and foothill grassland, vernal pools (alkaline). 20-640 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
<i>Navarretia eriocephala</i>	Hoary navarretia	--/--/1B.1	Vernally mesic. Cismontane woodland, valley and foothill grassland. 105-400 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Navarretia leucocephala</i> subsp <i>bakeri</i>	Baker's navarretia	--/--/1B.1	Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Vernal pools and swales; adobe or alkaline soils. 5-1740 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Neostaphia colusana</i>	Colusa grass	FT/CE/1B.1	Vernal pools. Usually in large, or deep vernal pool bottoms; adobe soils. 5-200 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Orcuttia tenuis</i>	Slender Orcutt grass	FT/CE/1B.1	Vernal pools. Often in gravelly pools. 35-1760 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Orcuttia viscida</i>	Sacramento Orcutt grass	FE/CE/1B.1	Vernal pools. 30-100 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Plagiobothrys hystriculus</i>	Bearded popcornflower	--/--/1B.1	Vernal pools, valley and foothill grassland. Wet sites. 0-275 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Sagittaria sandfordii</i>	Sandford's arrowhead	--/--/1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-650 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Symphyotrichum lentum</i>	Suisun Marsh aster	--/--/1B.2	Marshes and swamps (brackish and freshwater). most often seen along sloughs with <i>Phragmites</i> , <i>Scirpus</i> , blackberry, <i>Typha</i> , etc. 0-3 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Trifolium hydrophilum</i>	Saline clover	--/--/1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0-300 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.
<i>Tuctoria mucronata</i>	Crampton's tuctoria (Solano grass)	FE/CE/1B.1	Vernal pools, valley and foothill grassland. Clay bottoms of drying vernal pools and lakes in valley grassland. 5-10 m.	Unlikely. No suitable habitat for this species within the RSP Area. Species not known to occur within five miles of the RSP Area. This species was not observed during reconnaissance surveys.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE RSP AREA

Scientific Name	Common Name	Listing Status: Federal/State/Other	Habitat Description	Potential for Occurrence within the RSP Area
Sensitive Vegetation Communities				
Elderberry savanna	--	--	Open to moderately closed stands characterized by <i>Sambucus Mexicana</i> . Understory typically dominated by grasses. Occurs in association with remnant riparian forest vegetation.	Unlikely. Habitat not present within or directly adjacent to the RSP Area.
Great Valley Cottonwood Riparian Forest	--	--	A dense, broadleafed, winter deciduous riparian forest dominated by Fremont cottonwood (<i>Populus fremontii</i>) and Goodding's black willow (<i>Salix gooddingii</i>). The understory is usually dense, with abundant vegetative reproduction of canopy dominants and California wild grape is the most conspicuous vine. Habitat experiences frequent flooding.	Unlikely. Habitat not present within or directly adjacent to the RSP Area.
Great Valley Valley Oak Riparian Forest	--	--	Medium to tall (rarely to 100 feet) broadleafed, winter deciduous, closed-canopy riparian forest dominated by Valley oak (<i>Quercus lobata</i>). Understories include scattered Oregon ash, Northern California black walnut, and western sycamore as well as young valley oaks. Vines are relatively scattered throughout the shady understory but quickly become conspicuous occupying gaps where light is available.	High. Habitat occurs adjacent to the RSP Area along the Sacramento River.
Northern Claypan Vernal Pool	--	--	Similar to Northern Hardpan Vernal Pools, but with less topographical relief, and usually lower overall cover. Pools range in size from the small (a few square meters) to quite large (covering several hectares).	Unlikely. Habitat not present within or directly adjacent to the RSP Area.
Northern Hardpan Vernal Pool	--	--	Community is dominated by annual grasses and herbs that grow in and out of the water. Germination and growth begin with winter rains, often continuing even when inundated. These pools gradually evaporate during spring, leaving concentric bands of vegetation that colorfully encircle the drying pools.	Unlikely. Habitat not present within or directly adjacent to the RSP Area.
Northern Volcanic Mudflow Vernal Pool	--	--	Pools occur on Tertiary volcanic mudflows called lahars. Pools form after winter rains in settings of impeded water over rock-bound depressions. The pools are small, forming in irregular depressions in gently sloping surfaces. Habitat is seasonally flooded and seasonally saturated.	Unlikely. Habitat not present within or directly adjacent to the RSP Area.

KEY:

Federal: (USFWS)

FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government
FC = Candidate for listing by the Federal Government

State: (CDFW)

SE = Listed as Endangered by the State of California
ST = Listed as Threatened by the State of California
SR = Listed as Rare by the State of California (plants only)
CSC = California Species of Special Concern
WL = Species on the CDFW Watch List

SOURCES: CDFW, 2015a and USFWS, 2015a.

CNPS: (California Native Plant Society)

Rank 1A = Plants presumed extinct in California
Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
Rank 2 = Plants rare, threatened, or endangered in California but more common elsewhere
Rank 3 = Need more information
Rank 4 = Limited distribution – a watch list
0.1 = Seriously endangered in California
0.2 = Fairly endangered in California
0.3 = Not very endangered in California
-- = No Listing