Scientific Name	Common Name	Federal/State Status	Habitat	Potential to Occur
Amphibians				
Ambystoma californiense	California tiger salamander	FT/ST, WL	California tiger salamander (CTS) may be found in riparian and wet meadow habitats, but is more common in grasslands. CTS spend most of its life cycle underground in adjacent valley oak woodland or grassland habitat, primarily in rodent burrows. Breeding takes place following the first heavy winter rains. Temporary or permanent freshwater pools or slowly flowing streams are required for egglaying and larval development. They appear to be absent in waters containing predatory game fish.	Not expected to occur. Multiple sampling efforts for larvae and adults from 1994-2003 and 2007-2011 (Ted Winfield and Associates 2016) directly adjacent to the site resulted in negative findings, and the nearest historical documented occurrence is approximately 1.80 miles south of the site. The site is outside of the planning area for the CTS Recovery Plan.
Dicamptodon ensatus	California giant salamander	None/SSC	California giant salamander occurs in wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages. Aquatic larvae transform into four-legged salamanders that live on the ground and breathe air with lungs. Neotenic adults which retain their gills and continue to live in water are found in many populations. This salamander is nocturnal, but also active in daylight in wet conditions. They can be found walking across roads on rainy nights, especially with the first heavy rains of the fall, usually in November. Adults are also found under cover objects such as rocks, logs and artificial cover.	Not expected to occur. Suitable coastal woodland or aquatic habitat is not present within or adjacent to the project site.
Rana boylii	foothill yellow- legged frog	None/SSC, PST	Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests,	Not expected to occur. Suitable perennial aquatic stream habitat for

			chaparral, and woodlands. Sometimes found	this species is not present within or
			in isolated pools, vegetated backwaters, and	adjacent to the project site.
			deep, shaded, spring-fed pools.	
Rana draytonii	California red-	FT/SSC	California red-legged frogs occur in different	Not expected to occur. Suitable
	legged frog		habitats depending on their life stage, the	habitat for this species is not present
			season, and weather conditions. Breeding	within or adjacent to the project site.
			habitat includes coastal lagoons, marshes,	Copeland Creek to the south of the
			springs, permanent and semi-permanent	project does not provide sufficient
			natural ponds, and ponded and backwater	water source suitable for breeding
			portions of streams. These frogs also breed in	and the nearest occurrence record is
			artificial impoundments including stock ponds,	located approximately 4 miles east of
			irrigation ponds, and siltation ponds. Creeks	the site (CDFW 2019).
			and ponds with dense growths of woody	
			riparian vegetation, especially willows (Salix	
			spp.) are preferred, although the absence of	
			vegetation at an aquatic site does not rule out	
			the possibility of occupancy. Adult frogs prefer	
			dense, shrubby or emergent riparian	
			vegetation near deep (≥2 to 3 feet), still or	
			slow moving water, especially where dense	
			stands of overhanging willow and an	
			intermixed fringe of cattail occur adjacent to	
			open water.	
Taricha rivularis	red-bellied	None/SSC	Redwood forests (and sometimes other forest	Not expected to occur. Suitable
	newt		types) along coastal drainages from Humboldt	coastal woodland or aquatic habitat
			County south to Sonoma County, inland to	is not present within or adjacent to
			Lake County. Lives in terrestrial habitats,	the project site.
			juveniles generally underground, adults active	
			at surface in moist environments. Will migrate	
			over 1 km to breed, typically in streams with	
			moderate flow and clean rocky substrate.	
Reptiles				



Actinemys marmorata	northwestern pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. Although Copeland Creek to the south of the project site provides suitable aquatic habitat for this species, suitable aquatic habitat for this specie is not present within or adjacent to the project site. The nearest documented occurrence is approximately 3 miles west of the site (CDFW 2019).
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL	Cooper's hawk nest and forage in dense stands of live oak, riparian woodlands, or other woodland habitats often near water.	Not expected to occur. Suitable dense stands of woodland habitat is not present within or adjacent to the project site. The oak trees within the project site do not provide adequate canopy cover or forest height.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Tricolored blackbird is a colonial species found almost exclusively in California. It utilizes wetlands, marshes and agricultural grain fields for foraging and nesting. The tricolored blackbird population has declined significantly in the past 6 years due to habitat loss and harvest of grain fields before young have fledged.	Not expected to occur. Suitable breeding substrates for this species is not present within or adjacent to the project site.
Ammodramus savannarum (nesting)	grasshopper sparrow	None/SSC	Grasshopper sparrow is found in grasslands, hayfields and prairies. Breeds in dry fields and prairies, especially those with fairly tall grass and weeds and a few scattered shrubs. Also nests in overgrown pastures and hayfields, and sometimes in fields of other crops. May nest in small colonies. Forages for mostly insects and seeds.	Low potential to occur. Suitable habitat for this species is present within project site; however, the nearest documented occurrence is 5.5 miles east of the site (CDFW 2019).

Aquila chrysaetos (nesting & wintering)	golden eagle	BCC/FP, WL	Golden eagle is found in open country including mountains, foothills, and plains. In the west, they are found over prairie, rangeland, or desert. They are very wideranging in winter, and more restricted to areas with good nest sites in summer, which consist of cliff ledges or often large trees.	Moderate potential to occur. Suitable foraging habitat is present within the site, and there are recent occurrence records from the Sonoma Mountain area approximately 3 miles east of the site (CDFW 2019).
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/SSC	The burrowing owl utilizes abandoned ground squirrel burrows in open habitats and grasslands, also disturbed areas. Diet consists of insects, small mammals, reptiles and amphibians. Commonly uses burrows on levees or mounds where there are unobstructed views of possible predators such as raptors or foxes.	High potential to occur. Two burrowing owls were observed at active burrows on a neighboring site directly north of the project site during surveys conducted by Dudek November 9, 2017. Additional occurrences of this species are located 0.51 mile northwest of the project site (CDFW 2019).
Buteo regalis (wintering)	ferruginous hawk	BCC/WL	Ferruginous hawks breed in grasslands and shrublands where they nest in cliffs, outcrops and tree groves. Winters and forages in open, dry country, grasslands, open fields, agriculture	Low potential to winter at the site. Suitable winter foraging habitat is present in the grasslands within and adjacent to the site. No potential for breeding at the project site.
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur. The site is outside of the known breeding range for this species
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE	Western yellow-billed cuckoo inhabits woodlands, thickets, orchards, streamside groves. Breeds mostly in dense deciduous stands, including forest edges, tall thickets, dense second growth, overgrown orchards, scrubby oak woods. Often in willow groves around marshes. In the west, mostly in streamside trees, including cottonwood-	Not expected to occur. Suitable riparian habitat for this species is not present within or adjacent to the project site.

Coturnicops noveboracensis	yellow rail	BCC/SSC	willow groves in arid country. Forages by scaling through shrubs and trees, gleaning insects from foliage and branches. Yellow rail is highly secretive and range and abundance is incompletely known because of this. They prefer densely vegetated marshes, and sedge marshes/meadows with moist soil	Not expected to occur. Suitable coastal marsh or meadow habitat for this species is not present within or adjacent to the project site.
			or shallow standing water for breeding. They are very rare, but currently known to winter in a few coastal marshes and Suisun Marsh near Fairfield, California.	
Elanus leucurus (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Moderate potential to occur. Oak trees in the project site provide suitable nesting habitat and grasslands in and adjacent to the project site provide suitable foraging habitat. The nearest documented occurrence of this species is located 4.4 miles southeast of the project site (CDFW 2019).
Eremophila alpestris actia	California horned lark	None/WL	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Not expected to occur. Suitable nesting habitat for this species is not present within or adjacent to the project site.
Geothlypis trichas sinuosa	saltmarsh common yellowthroat	BCC/SSC	The saltmarsh common yellowthroat remains locally numerous in areas where extensive wetlands with adjacent riparian thickets remain. In brackish and saline tidal marsh habitat around San Francisco Bay, yellowthroats prefer habitats consisting of rushes (<i>Scirpus</i> spp.), peppergrass (<i>Leipidium latifolium</i>), and <i>Juncus</i> .	Not expected to occur. Suitable coastal marsh or emergent wetland habitat for this species is not present within or adjacent to the project site.



Laterallus	California	BCC/FP, ST	California black rail occurs near freshwater	Not expected to occur. Suitable
jamaicensis	black rail		marshes along the margins of ponds, lakes,	coastal marsh or meadow habitat for
coturniculus			and water impoundments; also herb	this species is not present within or
			dominated wetlands on sloped ground	adjacent to the project site.
			associated with springs, canal leaks, seepage	
			from impoundments and agricultural	
			irrigation. Needs water depths of about 1 inch	
			that do not fluctuate during the year and	
			dense vegetation for nesting habitat.	
Melospiza	San Pablo song	BCC/SSC	San Pablo song sparrow inhabits salt marshes	Not expected to occur. Suitable
melodia samuelis	sparrow		along the northern edge of the San Francisco	coastal marsh habitat for this species
			and San Pablo bays, and on the south side of	is not present within or adjacent to
			San Pablo Bay southwest to San Pablo Point	the project site.
			on the Richmond headland.	
Rallus obsoletus	Ridgway's rail	FE/SE, FP	Populations of the California Ridgway's rail now	Not expected to occur. Suitable
obsoletus			live almost exclusively in the marshes of the San	coastal marsh habitat for this species
			Francisco estuary. They inhabit a range of salt	is not present within or adjacent to
			and brackish water marshes and tidal sloughs.	the project site.
			They typically utilize salt marshes dominated by	
			both pickleweed (Salicornia virginica) and Pacific	
			cordgrass (Spartina foliosa).	
Riparia riparia	bank swallow	None/ST	Nests in riparian, lacustrine, and coastal areas	Not expected to occur. Suitable
(nesting)			with vertical banks, bluffs, and cliffs with	nesting habitat for this species is not
			sandy soils; open country and water during	present within or adjacent to the
			migration	project site.
Fishes				
Lavinia	Tomales roach	None/SSC	Tributaries to Tomales Bay	Not expected to occur. Suitable
symmetricus ssp.				aquatic habitat for this species is not
2				present within or adjacent to the
				project site.
Oncorhynchus	coho salmon -	FE/SE	Coho spend approximately the first half of their	Not expected to occur. Suitable
kisutch pop. 4	central		life cycle rearing and feeding in streams and	aquatic habitat for this species is not

	California		small freshwater tributaries. Spawning habitat is	present within or adjacent to the
	coast ESU		small streams with stable gravel substrates. The	project site.
			remainder of the life cycle is spent foraging in	,
			estuarine and marine waters of the Pacific	
			Ocean. They feed on plankton and insects in	
			freshwater and switch to a diet of small fishes	
			while in the ocean.	
Oncorhynchus	steelhead -	FT/None	Central California coast steelhead (and their	Not expected to occur. The site is
mykiss irideus	central		progeny) spawns in streams from the Russian	outside of the species' known
pop. 8	California		River to Aptos Creek, Santa Cruz County,	geographic range and there is no
	coast DPS		California (inclusive). They also occur in	suitable habitat present.
			drainages of San Francisco and San Pablo	
			Bays. Regardless of life history strategy, for	
			the first year or two of life rainbow trout and	
			steelhead are found in cool, clear, fast-flowing	
			permanent streams and rivers where riffles	
			predominate over pools, there is ample cover	
			from riparian vegetation or undercut banks,	
			and invertebrate life is diverse and abundant.	
Pogonichthys	Sacramento	None/SSC	Splittail are endemic to the Central Valley of	Not expected to occur. Suitable
macrolepidotus	splittail		California and depend on both brackish-water	aquatic habitat for this species is not
			rearing habitats in the San Francisco estuary and	present within or adjacent to the
			on floodplain and river-edge spawning habitats	project site.
			immediately above the estuary. Most migrate	
			between these two habitat types on a near	
			annual basis. They are adapted to a wide range	
			of salinities. From November through February,	
			adults migrate upstream in pulses in response to	
			flow events. Adults spawn on floodplains or	
			flooded edge habitats in March and April and	
			then migrate back downstream. Embryos and	
			larvae remain in flooded vegetation for 3-6	
			weeks during March and April.	

Spirinchus thaleichthys Mammals	longfin smelt	FC/SSC, ST	The longfin smelt is a pelagic estuarine fish. Longfin smelt generally spawn in freshwater and then move downstream to brackish water to mature. The life cycle of most longfin smelt generally requires estuarine conditions. Juvenile and adult longfin smelt have been found throughout the year in salinities ranging from pure freshwater to pure seawater, although once past the juvenile stage, they are typically collected in waters with salinities ranging from 14 to 28 parts per thousand. Longfin smelt are thought to be restricted by high water temperatures, generally greater than 22 degrees °C. Most longfin smelt in the San Francisco Bay are believed to breed in the lower reaches of the Sacramento and San Joaquin Rivers.	Not expected to occur. Suitable aquatic habitat for this species is not present within or adjacent to the project site.
Antrozous pallidus	pallid bat	None/SSC	Pallid bat occupies a variety of habitats including grassland, shrubland, woodland and forests from sea level up through mixed conifer forest. Roosts in caves, mines, crevices and occasionally hollow trees or buildings. Prefers open habitats for foraging.	Moderate potential to occur. Suitable foraging habitat exists within the project site, and trees within and adjacent to the site could provide suitable roosting habitat.
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC	Townsend's big-eared bat is found throughout most of western North America. Hibernates and roosts in caves and mines near entrances, or cave like structures such as buildings or under decks. Forages in forested habitats, along open edges.	Not expected to occur. Suitable foraging and roosting habitat for this species is not present within or adjacent to the project site.
Lasiurus blossevillii	western red bat	None/SSC	Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. Roosts primarily in trees.	Not expected to occur. The oak woodland on site is likely too small to provide suitable roosting habitat for



			Feeds over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands. Not found in desert areas.	this species and no other potentially suitable roosting habitat occurs in the vicinity of the site.
Reithrodontomys raviventris	salt-marsh harvest mouse	FE/FP, SE	The salt marsh harvest mouse occurs in tidal flats and on the shore in estuarine habitats, and in herbaceous wetlands. Occurs in salt and brackish marshes where plants provide a dense mat for cover, with a high percentage of pickleweed, along with a complex structure of other plant species. The salt marsh harvest mouse needs access to high ground for refuge/cover, especially during high tides in the winter. Diet is composed of green vegetation including salt grass and pickleweed, along with some seeds, but varies by available vegetation.	Not expected to occur. Suitable salt marsh habitat for this species is not present within or adjacent to the project site.
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Low potential to occur. Suitable habitat for this species is present within the site, although no suitably sized burrows were observed during a survey conducted in the vicinity by Dudek on November 9, 2017. The nearest documented occurrence is 4 miles southwest of the project site (CDFW 2019).
Invertebrates				
Syncaris pacifica	California freshwater shrimp	FE/SE	California freshwater shrimp is found in low to moderate gradient perennial creeks and streams where there is some emergent vegetation, high water quality, low levels of pollution and good oxygen levels. Some	Not expected to occur. Suitable habitat for this species is not present within or adjacent to the project area.



		salinity is tolerated, although they are not	
		found in any tidally influenced or brackish	
		waters. Oviposition occurs in late spring and	
		eggs hatch in June.	