

Appendix D Biological Resources – Species Tables

Table D-1 Special-status Plant Species with Potential to Occur within the Biological Study Area

Common Name Scientific Name	Listing Status ^a			Flowering Period	Habitat Preferences	Potential to Occur within the Project BSA	Potential Effects to Federally Listed Species
	Federal	State	CNPS				
Yellow sand verbena <i>Abronia umbellata</i> var. <i>breviflora</i>	FSC	--	1B.1	June– October	Coastal dunes; 10 to 33 feet above sea level.	Low to Moderate. Limited areas of marginally suitable habitat along coastal dune at outlet of Scotty Creek west of SR 1 in BSA. Reference population was observed within 5 miles of BSA at Doran Beach Regional Park for 2012 botanical surveys. Not observed during protocol botanical surveys of BSA.	N/A
Blasdale's bent grass <i>Agrostis blasdalei</i>	--	--	1B.2	May–July	Primarily coastal bluff scrub and coastal dunes, and coastal prairie; 16 to 482 feet above sea level.	Low. Limited coastal bluff and dune habitat within the BSA along SR 1. Less than marginally suitable habitat in coastal terrace prairie in BSA. Nearest known location for this species is approximately 0.5 mile to the south of BSA near Schoolhouse Beach, Carmel. Not observed during protocol botanical surveys of BSA.	N/A
Sonoma alopecurus <i>Alopecurus</i> <i>aequalis</i> var. <i>sonomensis</i>	FE	--	1B.1	May–July	Freshwater wetland and swamp and riparian scrub; 16 to 1,198 feet above sea level.	Low. No riparian scrub along Scotty Creek within BSA. Less than marginally suitable habitat in freshwater marsh with spreading rush and soft rush dominants in BSA. BSA heavily grazed by cattle for over a century. Three historical populations occur on private land. Nearest known population, consisting of four plants as reportedly observed in 1997, is approximately 8.5 miles northeast of the BSA in Duncans Mills. Not observed during protocol botanical surveys of BSA.	No Effect
Napa false indigo <i>Amorpha</i> <i>californica</i> var. <i>napensis</i>	--	--	1B.2	April-July	Broadleafed upland forest (openings), chaparral, and cismontane woodland; 350 to 6,500 feet above sea level.	No Potential. No suitable habitat in BSA. BSA below elevation of historic occurrences. Two occurrences are approximately 4 miles northeast of the BSA. Not observed during protocol botanical surveys of BSA.	N/A
Baker's manzanita <i>Arctostaphylos</i> <i>bakeri</i> ssp. <i>bakeri</i>	--	SR	1B.1	February- April	Broadleafed upland forest and chaparral, often serpentinite; 245 to 900 feet above sea level.	No Potential. No suitable habitat in BSA. BSA below elevation of historic occurrences. One occurrence is approximately 4 miles northeast of the BSA. Not observed during protocol botanical surveys of BSA.	N/A

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Coastal bluff morning glory <i>Calystegia purpurata</i> ssp. <i>Saxicola</i>	--	--	1B.2	May– September	Coastal dunes and scrub, North Coast coniferous forest, bogs and fens, closed cone coniferous forest, coastal prairie; 33 to 344 feet above sea level.	Low. Less than marginally suitable habitat present in BSA. Nearest known location is 0.5 mile south of BSA near Schoolhouse Beach and within 5 miles south of BSA at Doran Beach Regional Park. Not found during reference population search on August 16, 2012, at these locations. Not observed during protocol botanical surveys of BSA.	N/A
Swamp harebell <i>Campanula californica</i>	--	--	1B.2	June– October	Bogs and fens, closed- cone coniferous forest, coastal prairies, meadows and seeps, freshwater marshes and swamps, and North Coast coniferous forests; 3 to 1,329 feet above sea level.	Low. Less than marginally suitable habitat present in BSA. Historic occurrence at Salmon Creek approximately 3 miles south of BSA. Possibly extirpated on private land. Not observed during protocol botanical surveys of BSA.	N/A
Bristly sedge <i>Carex comosa</i>	--	--	2B.1	May– September	Coastal prairie, freshwater wetlands and swamps, and valley and foothill grassland; lake margin edges; 0 to 2,051 feet above sea level.	Moderate. Marginally suitable habitat in freshwater marsh within BSA dominated by spreading rush and soft rush. Nearest known population at the mouth of Salmon Creek at bluffs approximately 2.5 miles south of the BSA, as best guessed in the California Natural Diversity Database (CNDDDB). Not observed during protocol botanical surveys of BSA.	N/A
Holly-leaved ceanothus <i>Ceanothus purpureus</i>	--	--	1B.2	February- June	Chaparral and cismontane woodland in rocky or volcanic soils; 400 to 2,200 feet above sea level.	No Potential. No suitable habitat in BSA. BSA below elevation of historic occurrences. One historic occurrence is approximately 5 miles northeast of the BSA. Not observed during protocol botanical surveys of BSA.	N/A
Baker's larkspur <i>Delphinium bakeri</i>	FE	SE	1B.1	May–July	Broad-leaved upland forest, coastal scrub, and grassland on decomposed shale; 262 to 1,001 feet above sea level.	No Potential. No suitable habitat in BSA. BSA below elevation of historic occurrences. The nearest occurrence considered extirpated at Salmon Creek approximately 3 miles south of the BSA. Not observed during protocol botanical surveys of BSA.	No Effect

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Golden larkspur <i>Delphinium luteum</i>	FE	SR	1B.1	March – May	Chaparral, coastal scrub, and coastal prairie; 0 to 328 feet above sea level.	Low. Less than marginally suitable habitat in coastal terrace prairie. BSA heavily grazed and trampled by cattle for over a century. Nearest known location for this species is approximately 7 miles southeast of the BSA. This population was used as the reference population for the study. Not observed during protocol botanical surveys of BSA.	No Effect
Greene's narrow-leaved daisy <i>Erigeron greenei</i>	--	--	1B.2	May – September	Chaparral in serpentinite or volcanic soils; 264 to 3,320 feet above sea level.	No Potential. No suitable habitat in BSA. BSA below elevation of historic occurrences. One historic occurrence is approximately 4 miles northeast of the BSA. Not observed during protocol botanical surveys of BSA.	N/A
Serpentine daisy <i>Erigeron serpentinus</i>	--	--	1B.3	May – August	Chaparral in serpentinite soils or seeps; 264 to 2,211 feet above sea level.	No Potential. No suitable habitat in BSA. BSA below elevation of historic occurrences. The nearest occurrence is approximately 5 miles north of the BSA. Not observed during protocol botanical surveys of BSA.	N/A
Bluff wallflower <i>Erysimum concinnum</i>	--	--	1B.2	February- July	Coastal bluff scrub, coastal dunes, and coastal prairie; 0 to 550 feet above sea level.	Low. Less than marginally suitable habitat in coastal terrace prairie. BSA heavily grazed and trampled by cattle for over a century. Nearest known location for this species is approximately 3.5 miles north of the BSA. Not observed during protocol botanical surveys of BSA.	N/A
Blue coast gilia <i>Gilia capitata ssp. chamissonis</i>	--	--	1B.1	April-July	Coastal dunes and coastal scrub; 0 to 660 feet above sea level.	Low. Less than marginally suitable habitat in coastal terrace prairie. BSA heavily grazed and trampled by cattle for over a century. Nearest known location for this species is approximately 11 miles north of the BSA. Not observed during protocol botanical surveys of BSA.	N/A
Pacific gilia <i>Gilia capitata ssp. pacifica</i>	--	--	1B.2	April- August	Coastal bluff scrub, chaparral (openings), coastal prairie, valley and foothill grassland; 15 to 4,400 feet above sea level.	Low. Less than marginally suitable habitat in coastal terrace prairie. BSA heavily grazed and trampled by cattle for over a century. Nearest known location for this species is approximately 5 miles north of the BSA. Not observed during protocol botanical surveys of BSA.	N/A

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White hayfield tarweed <i>Hemizonia congesta</i> ssp. <i>congesta</i>	--	--	1B.2	April– November	Northern coastal scrub and Valley grassland; 66 to 1,837 feet above sea level.	Moderate. Suitable annual grassland habitat is present within the BSA. Nearest known location for this species is approximately 5 miles northeast of the BSA along Pomo Canyon Trail in Sonoma Coast State Park. <i>Hemizonia congesta</i> ssp. <i>lutescens</i> mistakenly identified as <i>Hemizonia congesta</i> ssp. <i>congesta</i> during 2010 botanical surveys. <i>Hemizonia congesta</i> ssp. <i>congesta</i> has not been observed during protocol botanical surveys of BSA.	N/A
Short-leaved evax <i>Hesperevax sparsiflora</i> var. <i>brevifolia</i>	--	--	1B.2	March– June	Coastal bluff scrub (sandy), coastal dunes, and coastal prairie; 0 to 710 feet above sea level.	Low. Less than marginally suitable habitat in coastal terrace prairie. BSA heavily grazed and trampled by cattle for over a century. Nearest known locations for this species are approximately 4 miles north of the BSA in Sonoma Coast State Beach. Not observed during protocol botanical surveys of BSA.	N/A
Point Reyes horkelia <i>Horkelia marinensis</i>	--	--	1B.2	May– September	Coastal dunes, coastal prairie, and coastal scrub; dunes and coastal; 16 to 1,148 feet above sea level	Low. Less than marginally suitable habitat in coastal terrace prairie in BSA. Coastal terrace prairie heavily grazed and trampled by cattle for over a century. Nearest known location was recorded in 1980, approximately 7 miles south of the BSA within Bodega Head in Bodega Bay on private land. Not observed during protocol botanical surveys of BSA.	N/A
Perennial goldfields <i>Lasthenia californica</i> ssp. <i>macrantha</i>	--	--	1B.2	January– November	Coastal bluff scrub, coastal dunes, coastal scrub; 16 to 1,706 feet above sea level	Low. Less than marginally suitable habitat in narrow strip of coastal bluff scrub along SR 1 in BSA. The BSA has been heavily grazed and trampled by cattle for over a century. Nearest known location is in vicinity of mouth of Salmon Creek approximately 3 miles at a nonspecific location south of the BSA. Not observed during protocol botanical surveys of BSA.	N/A

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Crystal Springs lessingia <i>Lessingia arachnoidea</i>	--	--	1B.2	July- October	Cismontane woodland, coastal scrub, valley and foothill grasslands in serpentinite soils and often along roadsides; 190 to 660 feet above sea level.	No Potential. No suitable habitat in BSA. BSA below elevation of historic occurrences. The nearest occurrence is approximately 4 miles northeast of the BSA near Monte Rio. Not observed during protocol botanical surveys of BSA.	N/A
Tidestrom's lupine <i>Lupinus tidestromii</i>	FE	SE	1B.1	April-June	Coastal dunes; 0 to 330 feet above sea level.	Low. Less than marginally suitable habitat in coastal terrace prairie. BSA heavily grazed and trampled by cattle for over a century. Nearest known location for this species is approximately 5 miles north of the BSA in Goats Rock Beach. Not observed during protocol botanical surveys of BSA.	No Effect
Oregon polemonium <i>Polemonium carneum</i>	--	--	2B.2	April- September	Coastal prairie, coastal scrub, and lower montane coniferous forest; 0 to 6,004 feet above sea level	Low. Less than marginally suitable habitat in coastal terrace prairie. BSA heavily grazed and trampled by cattle for over a century. Historic occurrence approximately 7 miles south of the BSA near Bodega Bay on private land. Not observed during protocol botanical surveys of BSA.	N/A
Point Reyes checkerbloom <i>Sidalcea calycosa ssp. rhizomata</i>	--	--	1B.2	April- September	Freshwater marshes and swamps near coast; 10 to 250 feet above sea level.	Low. Less than marginally suitable habitat in freshwater marsh with spreading rush and soft rush dominants in BSA. BSA heavily grazed by cattle for over a century. One historical occurrence from approximately 4 miles northeast of the BSA in Duncans Mills. Not observed during protocol botanical surveys of BSA.	N/A
Purple-stemmed checkerbloom <i>Sidalcea malviflora ssp. purpurea</i>	--	--	1B.2	May-June	Broadleaf upland forest and coastal prairie; 48 to 279 feet above sea level	Low. Less than marginally suitable habitat in coastal terrace prairie. No woodland habitat within the BSA. The BSA has been heavily grazed and trampled by cattle for over a century. Nearest known location is Salmon Creek Beach approximately 3 miles south of the BSA. Not observed during protocol botanical surveys of BSA.	N/A

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Showy rancheria clover <i>Trifolium amoenum</i>	FE	--	1B.1	April–June	Coastal bluff scrub and Valley and foothill grassland; 0 to 1,362 feet above sea level	Very low. Less than marginally suitable habitat in coastal bluff scrub and coastal terrace prairie. The BSA has been heavily grazed and trampled by cattle for over a century. Not observed during protocol botanical surveys of BSA. Nearest known location is approximately 4 miles west of the BSA on Oceansong Ranch, Occidental, and the species is likely extirpated from this location.	No Effect

Notes:

^a Status definitions are as follows:

FE = Federally endangered (any species in danger of extinction throughout all or a significant portion of its range)

FSC = Federal species of concern

SE = State endangered (any species at risk of becoming extinct in all or a significant portion of its range)

SR = State rare (any species not currently threatened with extinction, but in such small numbers throughout its range that it may become endangered if its present environment worsens)

1B.1 = Plants rare, threatened, or endangered in California and elsewhere (ranked as seriously endangered in California)

1B.2 = Plants rare, threatened, or endangered in California and elsewhere (ranked as fairly endangered in California)

2B.1 = Plants rare, threatened, or endangered in California but more common elsewhere (ranked as seriously endangered in California)

2B.2 = Plants rare, threatened, or endangered in California but more common elsewhere (ranked as fairly endangered in California)

BSA = biological study area

CNPS = California Native Plant Society

N/A = not applicable (species is not federally listed)

Sources: *Gleason Beach Roadway Realignment Project Updated Special-Status Plant Surveys* (Caltrans 2012; Appendix of the Natural Environment Study (Caltrans 2015d); the California Native Plant Society Online Inventory of Rare and Endangered Plants (CNPS 2016), the California Natural Diversity Database (CDFW 2016a), and the California Department of Fish and Wildlife’s Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2016e).

Table D-2 Special-Status Wildlife Species with Potential to Occur in the Biological Study Area

Scientific Name	Common Name	Status (Federal/ State/CDFW) ^a	Habitat Requirements	Habitat Present/ Absent	Potential to Occur within the Project BSA	Potential to Affect Federally Listed Species
Invertebrates						
<i>Callophrys mossii bayensis</i>	San Bruno elfin butterfly	FE/--/--	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is stonecrop (<i>Sedum spathulifolium</i>).	Absent	Very Low. Microhabitat (mountainous areas) and the species larval host plant are not present within the BSA. Nearest CNDDDB documented occurrence is 10.0 miles.	No effect
<i>Speyeria zerene behrensii</i>	Behren's silverspot butterfly	FE/--/--	Restricted to the Pacific side of the Coast Ranges, from Point Arena to Cape Mendocino, Mendocino County. Inhabits coastal terrace prairie habitat. Requires the presence of <i>Viola adunca</i> , its larval host plant.	Absent	Very Low. The BSA falls outside the range for this species. BSA is south of the known range for the butterfly. Nearest CNDDDB documented occurrence is 24 miles.	No effect
<i>Speyeria zerene myrtleae</i>	Myrtle's silverspot butterfly	FE/--/--	Restricted to the foggy, coastal dunes and/or hills of the Point Reyes Peninsula; extirpated from coastal San Mateo County. Requires the presence of its larval host plant, western dog violet (<i>Viola adunca</i>).	Present	Known to Occur. Species observed within the BSA. Known nectar plants and larval host plants occur within the BSA.	May affect, and is likely to adversely affect
<i>Syncaris pacifica</i>	California freshwater shrimp	FE/SE/--	Endemic to Marin, Napa, and Sonoma counties. Occurs in shallow pools in low-elevation, low-gradient streams with moderate to heavy riparian cover.	Absent	Very Low. Scotty Creek within the BSA is very low-quality habitat. There is little hydrophytic vegetation along the banks and no tree or shrub growth within the BSA. During the summer months, pooling occurs, but water can be stagnant. Nearest CNDDDB documented occurrence is 2.4 miles.	No effect

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Fish						
<i>Acipenser medirostris</i>	Green sturgeon	FT/--/SSC	Marine waters, bays and coastal rivers. Spawns at temps between 8-14 C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Absent	Very Low. Scotty Creek is an intermittent narrow creek with a partial fish barrier.	No effect
<i>Eucyclogobius newberryi</i>	Tidewater goby	FE/--/SSC	Brackish water habitats along the California Coast from the mouth of the Smith River in Del Norte County, California south to Agua Hedionda Lagoon in San Diego County. Found in shallow lagoons and lower stream reaches; they need fairly still but not stagnant water and high oxygen levels.	Absent	Very Low. There is a small lagoon located on the private beach at the outlet of Scotty Creek, but it is intermittent and of low quality for tidewater gobies because of an upstream water diversion on Scotty Creek, cattle grazing, and recreational use of the beach. Nearest CNDDDB documented occurrence is 1.9 miles.	No effect
<i>Hysterocarpus traski pomo</i>	Russian River tule perch	--/--/SSC	Low elevation streams of the Russian River system; the Russian River empties into the Pacific Ocean about 5 miles north of the project area. Requires clear, flowing water with abundant cover and the presence of deep (greater than 1 meter) pools.	Absent	Very Low. Not within range. No suitable habitat within the BSA. Nearest CNDDDB documented occurrence is 11.7 miles.	N/A
<i>Oncorhynchus kisutch</i>	Coho salmon – Central California coast	FE/SE/--	Generally spend the first half of their life cycle rearing and feeding in streams and small freshwater tributaries. Typically spawn in small streams with stable gravel substrates; the remainder of the life cycle is spent foraging in estuarine and marine waters of the Pacific Ocean.	Present	Low. Scotty Creek historically provided habitat for coho salmon, but the creek has been degraded as a result of grazing, and the culverts at SR 1 are a potential movement barrier. Coho have not been observed in Scotty Creek in last 10 years. Nearest CNDDDB documented occurrence is 18.7 miles.	May affect, and is likely to adversely affect

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<i>Oncorhynchus mykiss irideus</i>	Steelhead-Central California Coast ESU	FT/--/--	Occurs from Russian River south to Soquel Creek near Santa Cruz and to, but not including the, Pajaro River near Watsonville, California. Also occurs in San Francisco and San Pablo Bay.	Present	High. Expected to occur. Scotty Creek Scotty Creek supports a small run of steelhead (Walsh, pers. comm., 2009). Nearest CNDDDB documented occurrence is 4.9 miles.	May affect, and is likely to adversely affect
<i>Oncorhynchus tshawytscha</i>	Chinook salmon	FT/--/--	Coastal rivers of northern California with sufficient year-round flows and adequate water temperatures.	Present	Very Low. Scotty Creek is outside of the identified distribution area (CDFW 2016b). There is no historic record of Chinook at Scotty Creek and the nearest CNDDDB documented occurrence is 153 miles to the north.	No effect
<i>Spirinchus thaleichthys</i>	Longfin smelt	FC/ST/SSC	Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 parts per thousand but can be found in completely freshwater to almost pure seawater.	Absent	Very Low. Estuarine habitat is not present within the BSA. Nearest CNDDDB documented occurrence is 3.7 miles.	No effect
Amphibians						
<i>Ambystoma californiense</i>	California tiger salamander and Critical Habitat	FT/ST/SSC	Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Absent	Very Low. BSA lacks underground refugia and vernal pools. Nearest CNDDDB documented occurrence is 15.1 miles.	No effect
<i>Rana draytonii</i>	California red-legged frog and Critical Habitat	FT/--/SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation; requires 11 to 20 weeks of permanent water for larval development. Must have access to aestivation habitat.	Present	Known to Occur. California red-legged frog carcass was observed in 2010 and eggs observed in 2012 in Scotty Creek within the BSA by project biologists.	May affect, and is likely to adversely affect (but not significant impact)
<i>Rana boylei</i>	Foothill yellow-legged frog	--/--/SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	Present	Low. Very limited amount of shading present along Scotty Creek. The nearest CNDDDB documented occurrence is 5.4 miles.	N/A

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Reptiles						
<i>Emys marmorata</i>	Western pond turtle	--/--/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation; prefers pools to shallower areas. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometer from water for egg laying.	Present	Low. Scotty Creek and the lagoon at Gleason Beach could support foraging Western pond turtles. Resident turtles are unlikely in the BSA due to the lack of basking. There are pools present in Scotty Creek within the BSA during the dry season, but these are shallow and can be stagnant. There is very little vegetation along the creek within the BSA, and frequent cattle use may preclude pond turtle presence within the BSA because of degraded water quality, eroded banks, and lack of safe basking sites. Species not detected during 2009 through 2011 field surveys. Nearest known CNDDDB occurrence is approximately 1.96 miles.	N/A
Birds						
<i>Agelaius tricolor</i>	Tricolored blackbird	BCC/SC/SSC (nesting)	Highly colonial species, most numerous in Central Valley. Found in wetlands including freshwater marshes and swamps. Requires open water, protected nesting substrate, and foraging areas with abundant insect prey within a few kilometers of the colony.	Absent	Known to occur. Nesting habitat is not present in the BSA; wetland vegetation within the BSA is of low stature because of grazing pressure. Nearest CNDDDB documented occurrence is 10.3 miles away. However, a foraging individual was observed on November 5, 2014, during field surveys for a separate project. Other nearby occurrences have been documented in eBird.	N/A

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<i>Athene cunicularia</i>	Burrowing owl	BCC/--/SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals.	Absent	Low. Ground squirrels or their burrow complexes have not been observed in the BSA. Rare wintering species in Sonoma Coast, no current breeding (Bates 2006). Nearest CNDDB documented occurrence is 1.9 miles to the southwest from 2007, 1 mile inland from SR 1.	N/A
<i>Brachyramphus marmoratus</i>	Marbled murrelet	FT/SE/--	Feeds near shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz in old-growth, redwood-dominated forests, up to 6 miles inland, often in Douglas-fir forests.	Absent	Very Low. Suitable forest habitat is not present within the BSA. Nearest CNDDB documented occurrence is 96 miles.	No effect
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	FT, BCC/--/SSC	Nesting occurs along sandy beaches, salt pond levees, and shores of large alkali lakes on gravelly or friable soils. Federal listing applies only to the pacific coastal population.	Absent	Very Low. The beach within the BSA is of low-quality habitat for the snowy plover because it is short and narrow and does not provide adequate refuge from high tides and heavy recreational use. Surveys observed no adults in Sonoma County during the 2007 breeding season (USFWS 2007). Nearest known CNDDB occurrence is about 1.8 miles south of project area at Bodega Harbor Spit, Bodega Bay, from the 1960s.	No effect
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	FT, BCC/SE /-- (nesting)	Nests in riparian forests along the broad, lower flood bottoms of larger river systems; nests in riparian areas with willows, which are often mixed with cottonwoods, blackberries, nettles, and/or wild grape.	Absent	Very Low. Suitable riparian habitat is not present within the BSA. Nearest CNDDB documented occurrence is 5.1 miles.	No effect

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<i>Cypseloides niger</i>	Black swift	BCC/--/SSC (nesting)	Coastal belt of Santa Cruz and Monterey County; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea bluffs above the surf; forages widely.	Absent	Very Low. Limited amount of cliff habitat in the BSA, unlikely to support nesting swifts due to exposure to high surf and eroding bluff. Nearest CNDDDB documented occurrence is 10.8 miles.	N/A
<i>Elanus leucurus</i>	White-tailed kite	--/--/FP (nesting)	Open grasslands, meadows, or marshes for foraging close to isolated, densely topped trees for nesting and perching.	Absent	Very Low. Roosting habitat (trees) is not present within the BSA. Nearest CNDDDB documented occurrence is 15.0 miles. Foraging is possible.	N/A
<i>Fratrercula cirrhata</i>	Tufted puffin	--/--/SSC	Open-ocean bird that nests along coastal islands, islets, and sometimes mainland cliffs.	Absent	Very Low. Limited amount of cliff habitat in the BSA, unlikely to support nesting swifts due to exposure to high surf and eroding bluff. Nearest CNDDDB documented occurrence is 4 miles north near the mouth of the Russian River in Sonoma Coast State Beach.	N/A
<i>Riparia riparia</i>	Bank swallow	--/ST/--	Colonial nester; nests primarily in riparian areas and other lowland habitats west of the desert. Requires vertical banks and cliffs with fine-textured and/or sandy soils near streams, rivers, lakes, and ocean to dig nesting holes.	Absent	Very Low. Suitable riparian habitat is not present and cliff habitat is very limited within the BSA. Nearest CNDDDB documented occurrence is 2.93 miles.	N/A
<i>Strix occidentalis</i>	Northern spotted owl	FT/SC/SSC	Old-growth forests or mixed stands of old growth and mature trees; occasionally in younger forests with patches of big trees.	Absent	Very Low. Suitable forest habitat is not present within the BSA. Nearest documented occurrence, in the Northern Spotted Owl database, is 2.5 miles.	No effect

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Mammals						
<i>Antrozous pallidus</i>	Pallid bat	--/--/SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. In California, common in oak woodlands and grasslands. Roosts must protect bats from high temperatures; very sensitive to disturbance of roosting sites.	Absent	Very Low. No habitat present to support roosting. Nearest CNDDDB documented occurrence is 5.6 miles.	N/A
<i>Arborimus pomo</i>	Sonoma tree vole	--/--/SSC	Occurs in forests with Douglas fir, redwoods, and montane hardwoods in the North Coast fog belt from the Oregon border to Sonoma County. Feeds almost exclusively on Douglas fir needles; will occasionally take needles of grand fir, hemlock, or spruce.	Absent	Very Low. Douglas fir trees are not present within the BSA. Nearest CNDDDB documented occurrence is 2.6 miles.	N/A
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	--/CT/SSC	Occurs throughout California in a wide variety of habitats, including broadleaved upland forest, chaparral, grassland, scrub habitats, meadows and seeps, riparian forests and woodlands, etc.; most common in mesic sites. Roosts in the open in caves or cave-like areas, hanging from walls and ceilings. Roosting sites are extremely sensitive to human disturbance.	Absent	Very Low. No suitable roosting structures present within the BSA. Nearest CNDDDB documented occurrence is 4.6 miles.	N/A
<i>Lasiurus blossevillii</i>	Western red bat	--/--/SSC	Roosts primarily in trees, 2 to 40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with areas for foraging.	Absent	Very Low. Roosting habitat (trees) is not present within the BSA. Nearest CNDDDB documented occurrence is 10.8 miles.	N/A
<i>Lasiurus cinereus</i>	Hoary bat	--/--/SSC	Prefers woodlands, roosting in trees protected from above and open below.	Absent	Very Low. Suitable habitat was not observed within the BSA during reconnaissance surveys. No CNDDDB records are known from the project region.	N/A

Table D-2 Special-Status Wildlife Species with Potential to Occur in the Biological Study Area

Scientific Name	Common Name	Status (Federal/State/CDFW) ^a	Habitat Requirements	Habitat Present/Absent	Potential to Occur within the Project BSA	Potential to Affect Federally Listed Species
<i>Taxidea taxus</i>	American badger	--/--/SSC	Most abundant in dry, open stages of moist shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Present	Known to Occur. Confirmed onsite. Badger den, markings, and ultimately a skeleton observed within the BSA.	N/A

Notes:

^a Federal Status:

FE – Federally endangered
 FT – Federally threatened
 BCC – Birds of Conservation Concern
 FC – Federal candidate species (former Category 1 candidates)

State Status:

SE – State endangered
 ST – State threatened
 SC – State candidate

California Department of Fish and Wildlife Status:

FP – Fully Protected
 SSC – Species of special concern

BSA = biological study area

CNDDDB = California Natural Diversity Database

N/A = not applicable; species is not federally listed

SR = State Route

Sources: California Natural Diversity Database (CDFW 2016a), Biogeographic Information and Observation System (BIOS) Online Map Viewer (CDFW 2016b), Special Animals List (CDFW 2016c), State & Federally Listed Endangered & Threatened Animals of California (CDFW 2016d), General Species List Generator (USFWS 2016a), and National Marine Fisheries Service species list (NMFS 2016).