

Appendices

Appendix A Species Summaries

A.1 Animal Species Summaries

Table A-1: Animal Species Summaries

Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Invertebrates						
Obscure bumble bee (<i>Bombus caliginosus</i>)	-	-	-	Coast range mountains of northern Washington to southern California	Relatively humid and foggy areas	Known. The CNDDDB (2016) has three records for wintering sites within the LOHCP Plan Area
Monarch butterfly (<i>Danaus plexippus</i>)	-	-	-	Roost in coastal regions from San Francisco to Baja California.	Winter roost sites Extend Along the Coast from Northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey Pine, cypress), with nectar and water sources nearby.	Known. The CNDDDB (2016) has three records for wintering sites within the LOHCP Plan Area. The records in the Plan Area consist of a eucalyptus grove in Skyline Grove, which is near the intersection of Doris Avenue, West Woodland Ave at the end of Monarch Lane, and Sweet Springs Marsh, north of Ramona Street.
Morro shoulderband snail (<i>Helminthoglypta walkeriana</i>)	FT	-	-	Inhabits areas on the south end of Morro Bay and is endemic to the western portion of San Luis Obispo County, California.	Coastal dune and scrub communities with the dominant shrub associated with the snail's habitat being California goldenbush (<i>Ericameria ericoides</i>), as well as a variety of ruderal, developed, and degraded habitats including non-native grasslands.	Known. The CNDDDB (2016) has ten records for the Morro shoulderband snail in the LOHCP Plan Area.

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Morro Bay blue butterfly <i>(Plebejus icarioides morroensis)</i>	-	-	-	Locally common from March to July and resides only along the immediate coast of San Luis Obispo and western Santa Barbara counties.	Found in close proximity to host plant silver dune lupine (<i>Lupinus chamissonis</i>).	Known. The CNDDDB (2016) has five records for Morro Bay blue butterfly within the LOHCP Plan Area.
Mimic tryonia <i>(Tryonia imitator)</i>	-	-	-	Historically occupied coastal lagoons and areas where creek mouths joined the tidal marsh, from San Diego to Sonoma County. Present populations are scattered throughout the former range; Sonoma County populations are likely extirpated.	Coastal lagoons and where creek mouths join tidal marshes.	Known. The CNDDDB (2016) has one record for mimic tryonia within the LOHCP Plan Area.
Fish						
Tidewater goby <i>(Eucyclogobius newberryi)</i>	FE	-	SSC	From the Agua Hedionda Lagoon, San Diego County, in the south to the mouth of the Smith River (Tillas Slough), Del Norte County, in the north.	Sandy and silty bottoms of shallow lagoons and lower stream areas where the water is brackish (salinities usually <10 ppt) to fresh.	Known. The CNDDDB (2016) has one record for tidewater goby within the LOHCP Plan Area.
Steelhead-South/ Central California Coast DPS <i>(Oncorhynchus mykiss irideus)</i>	FT	-	SSC	They occur in Malibu Creek, Ventura River, Santa Clara River, and Santa Ynez River, although in greatly reduced numbers. Recent records show that they have been found in Mission and Atascadero creeks (Santa Barbara County) and Mulholland, Big Sycamore, and Topanga canyons (Los Angeles Co.).	Steelhead inhabit riparian, emergent, palustrine habitat. Perennial streams usually characterize spawning and rearing habitat with clear, cool to cold, fast flowing water with high dissolved oxygen content and abundant gravels and riffles.	Potential to occur. The CNDDDB (2016) and existing literature have no records for south/central steelhead occurrence within the LOHCP Plan Area, but suitable habitat is available within Los Osos Creek, on the eastern perimeter of the Plan Area.
Amphibians						

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
California red-legged frog (<i>Rana draytonii</i>)	FT	-	SSC	Found along the coast and coastal mountain ranges of California from Humboldt County to San Diego County; Sierra Nevada (mid elevations [above 1,000 feet] from Butte County to Fresno County).	Inhabits lowland streams, wetlands, riparian woodlands, and livestock ponds.	Potential to occur. The CNDDDB (2016) and existing literature have no records for the CRLF within the LOHCP Plan Area. There is suitable habitat in the LOHCP Area and they are found in the Morro Bay tributaries that include Los Osos Creek.
Reptiles						
Black legless lizard and silvery legless lizard (<i>Anniella pulchra nigra</i> and <i>A. p. pulchra</i>)	-	-	SSC	Antioch (Contra Costa County), south through the Coast, Transverse, and Peninsular ranges; parts of the San Joaquin Valley; and the western edge of the Sierra Nevada Mountains and Mojave Desert to El Consuelo (Baja California Norte).	Areas with sandy or loose loamy soils under the sparse vegetation of beaches, chaparral, or pine-oak woodland; or sycamores, cottonwoods, or oaks that grow on stream terraces.	Known. The CNDDDB (2016) has five records for black legless lizard/silvery legless lizard within the LOHCP Plan Area.
Western pond turtle (<i>Emys marmorata</i>)	-	-	SSC	Occurs along the central coast of California east to the Sierra Nevada and along the southern California coast inland to the Mojave and Sonora Deserts; range overlaps with that of the northwestern pond turtle throughout the Delta and in the Central Valley from Sacramento County to Tulare County.	Inhabits slow moving permanent or intermittent streams, small ponds, small lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and sewage treatment lagoons.	Potential to occur. The CNDDDB (2016) and existing literature have no records for western pond turtle within the LOHCP Plan Area, but suitable habitat is available. This species is thought to occur at the Sweet Springs Nature Preserve.

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	-	-	SSC	California endemic with distribution from Lake Shasta southward along the edges of the Sacramento Valley into much of the South Coast Ranges, San Joaquin Valley, and Sierra Nevada foothills to northern Los Angeles, Santa Barbara, and Ventura counties. Several fine-scaled populations in the Shandon-Cuyama Valley region, Santa Barbara, and San Luis Obispo counties.	Inhabits exposed gravelly-sandy substrate containing scattered shrubs (e.g., California buckwheat) to clearings in riparian woodlands, to dry uniform chamise chaparral to annual grassland with scattered saltbush. Maximum abundance is reached in sandy loam areas on alkali flats.	Known. The CNDDDB (2016) has two records for coast horned lizard within the LOHCP Plan Area.
Birds						
Cooper's hawk (<i>Accipiter cooperii</i>)	-	-	WL	Throughout California except high altitudes in the Sierra Nevada; winters in the Central Valley, southeastern desert regions, and plains east of the Cascade Range.	Nests primarily in riparian forests dominated by deciduous species; forages in open woodlands.	Potential to occur. The CNDDDB (2016) has one historical record of nesting within the LOHCP Plan Area in Baywood. The existing literature regards the species as a resident of San Luis Obispo County, nesting and foraging in and near deciduous riparian areas.

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Sharp-shinned hawk (<i>Accipiter striatus</i>)	-	-	WL	Permanent resident in the Sierra Nevada, Cascade, Klamath, and north Coast Ranges at mid-elevations and along the coast in Marin, San Francisco, San Mateo, Santa Cruz, and Monterey counties; winters over the rest of the state except very high elevations.	Prefers riparian habitats; not restricted to them and are found in mid-elevation habitats such as pine forests, woodlands, and mixed conifer forests. For nesting they occur in dense tree stands that are cool, moist, well shaded, and usually near water. For hunting habitat, they often use openings at the edges of woodlands and also brushy pastures.	Potential to occur. The CNDDDB (2016) and existing literature have no records for sharp-shinned hawk within the LOHCP Plan Area. There is suitable wintering habitat present in LOHCP Plan Area.
Golden eagle (<i>Aquila chrysaetos</i>)	-	-	FP, WL	Foothills and mountains throughout California; uncommon non-breeding visitor to lowlands such as the Central Valley.	Cliffs and escarpments or tall trees for nesting; annual grasslands, chaparral, and oak woodlands for hunting.	Potential to occur. The CNDDDB (2016) and existing literature have no records for golden eagles within the LOHCP Plan Area. No suitable nesting habitat is present within LOHCP Plan Area.
Burrowing owl (<i>Athene cunicularia</i>)	-	-	SSC	Restricted to the Central Valley extending from Redding south to the Grapevine, east through the Mojave Desert and west to San Jose, the San Francisco Bay area, the outer coastal foothills area which extend from Monterey south to San Diego and the Sonoran Desert.	Inhabits dry, sparse grasslands, desert scrub, and agricultural areas.	Potential to occur. The CNDDDB (2016) and existing literature have no records for western burrowing owl within the LOHCP Plan Area. There is potentially suitable wintering and foraging habitat present in LOHCP Plan Area, although it is outside of its known range.

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT	-	SSC	Coastal areas from Del Norte County to San Diego County.	Nests, feeds, and takes cover on sandy or gravelly beaches along the coast, on estuarine salt ponds, alkali lakes, and at the Salton Sea.	Potential to occur. The CNDDDB (2016) and existing literature have no records for western snowy plover within the LOHCP Plan Area. There is no suitable nesting habitat present in LOHCP Plan Area.
Northern harrier (<i>Circus cyaneus</i>)	-	-	SSC	Occurs from annual grassland up to lodgepole pine and alpine meadow habitats. It breeds from sea level to 5,700 ft. in the Central Valley and Sierra Nevada, and up to 3,600 ft. in northeastern California. It is a permanent resident of the northeastern plateau and coastal areas; it is a less common resident of the Central Valley.	Grasslands, meadows, marshes, and seasonal and agricultural wetlands providing tall cover.	Known. The CNDDDB (2016) and existing literature have no records for northern harrier within the LOHCP Plan Area. The northern harrier is a frequent forager on the southern portion of Morro Bay S.P. and the Bayview Unit of the Morro Dunes E.R. (J. Chesnut, pers. comm.).
White-tailed kite (<i>Elanus leucurus</i>)	-	-	FP	Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border.	Forage in low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands. Breeds in lowland grasslands, agriculture, wetlands, oak-woodland, and savannah habitats, and riparian areas associated with open areas.	Known. A large roosting concentration of white-tailed kite has been observed north of Nipomo Avenue and east of South Bay Blvd near Eto Creek. The birds are winter resident, with occasional summer presence (J. Chesnut, pers. comm.).

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Merlin (<i>Falco columbarius</i>)	-	-	WL	Does not nest in California; rare but widespread winter visitor to the Central Valley and coastal areas.	Forages along coastlines, open grasslands, savannas, and woodlands; often forages near lakes and other wetlands.	Potential to occur. The CNDDDB (2016) and existing literature have no records for merlin within the LOHCP Plan Area. There is no suitable breeding habitat in the LOHCP Plan Area. This species may be a wintering visitor, but presence is unlikely in the LOHCP Plan Area.
Prairie falcon (<i>Falco mexicanus</i>)	-	-	WL	Uncommon permanent resident and migrant that ranges from southeastern deserts northwest along the inner Coast Ranges and Sierra Nevada. It is distributed from annual grasslands to alpine meadows within this region. It is not found in the northern coastal fog belt, or along the coastline.	Annual grasslands to alpine meadows, but they are also associated primarily with perennial grasslands, savannas, rangeland, some agricultural fields, and desert scrub areas, typically dry environments of western North American where there are cliffs or bluffs for nest sites.	Potential to occur. The CNDDDB (2016) and existing literature have no records for prairie falcon within the LOHCP Plan Area. Suitable foraging habitat is present in LOHCP Plan Area, but the LOHCP Plan Area is out of its known range.
Peregrine falcon (<i>Falco peregrinus anatum</i>)	DE	DE	FP	Common along the coast north of Santa Barbara, in the Sierra Nevada, and in other mountains of northern California. In winter, found inland throughout the Central Valley, and occasionally on the Channel Islands. Migrants occur along the coast and in the western Sierra Nevada in spring and fall.	Open habitats, including tundra, marshes, seacoasts, savannas and high mountains. Breeds mostly in woodland, forest, and coastal habitats.	Known. The CNDDDB (2016) have no record of known peregrine falcon occurrence within the LOHCP Plan Area. However, the undeveloped shorefront lots in Baywood are a preferred hunting area for the Morro Bay peregrine falcons. They are frequently observed feeding on shorebirds at the end of Pine Street, 2nd Street frontage, and Pecho Valley Road (J. Chesnut, pers. comm.).

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Loggerhead shrike (<i>Lanius ludovicianus</i>)	-	-	SSC	Found throughout the foothills and lowlands of California as a resident. Winter migrants are found coastally, north of Mendocino County.	Forage over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral, and beach with scattered shrubs.	Potential to occur. The CNDDDB (2016) has no records for loggerhead shrike within the LOHCP Plan Area. Suitable foraging habitat present in LOHCP Plan Area.
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	-	ST	FP	Northern reaches of the San Francisco Bay estuary, especially the tidal marshland of San Pablo Bay and associated rivers; several small, fragment subpopulations still existed at Tomales Bay, Bolinas Lagoon, Morro Bay, and in southeastern California.	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations.	Known. The CNDDDB (2016) has two records for the California black rail within the LOHCP Plan Area. Observed at Sweet Springs Preserve, adjacent to Cuesta-by-the-Sea. Also found at other locations in the LOHCP Plan Area during the Morro Coast Audubon Christmas Bird Counts.
Marbled godwit (<i>Limosa fedoa</i>)	-	-	-	The species winters in greatest numbers along the Pacific coast from central California south through Southern California. A number of Important Bird Areas (IBAs) in both the United States and Canada help protect important habitat for marbled godwit. These sites include California's Morro Bay IBA, which regularly hosts over 2,000 wintering godwits.	Winters in coastal mudflats.	Potential to occur. The CNDDDB (2016) and existing literature have no records for marbled godwit within the LOHCP Plan Area, but suitable habitat is available.

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Long billed curlew (<i>Numenius americanus</i>)	-	-	WL	Breeding grounds include northeastern California. Wintering range along entire Pacific Coast of California.	Breed mainly in the native grasslands of arid western regions and are often found in farm fields and grasslands during migration and on their wintering grounds. Occur in coastal marshes and mudflats during the winter. Nest on the ground in the open, on dry prairie.	Potential to occur. The CNDDDB (2016) and existing literature have no records for long billed curlew within the LOHCP Plan Area, but suitable habitat is available.
Whimbrel (<i>Numenius phaeopus</i>)	-	-	-	Winter along the coast of California	Dry heath uplands to dwarf shrub, and mossy lowlands. During the winter, it forages in tidal flats, mangroves, and a variety of other coastal habitats.	Potential to occur. The CNDDDB (2016) and existing literature have no records for whimbrel within the LOHCP Plan Area, but suitable habitat is available.
Large-billed savannah sparrow [<i>Passerculus sandwichensis rostratus</i> (wintering)]	-	-	SSC	Winter along the coast of California	Salt marches or dune grasses.	Potential to occur. The CNDDDB (2016) and existing literature have no records for large-billed savannah sparrow within the LOHCP Plan Area, but suitable habitat is available.
California brown pelican (<i>Pelecanus occidentalis californicus</i>)	DE	DE	FP	Ranges along entire California coast. Breeds on Channel Islands (Santa Barbara, Anacapa, and Santa Cruz). Also, occasionally can be found on Salton Sea.	Estuarine, marine subtidal, and marine pelagic waters along the California coast. Specifically, they are found on rocky shores and cliffs, in sloughs, and coastal river deltas.	Potential to occur. The CNDDDB (2016) and existing literature have no records for brown pelican within the LOHCP Plan Area, but suitable habitat is available.
California clapper rail (<i>Rallus longirostris obsoletus</i>)	FE	SE	FP	Currently limited to San Francisco Bay, San Pablo Bay, Suisun Bay, and tidal marshes associated with estuarine sloughs draining into these bays.	Marshes supporting tidal sloughs that provide direct tidal circulation throughout the area and shallow water and mudflats with sparse vegetation.	Potential to occur. The CNDDDB (2016) and existing literature have no records for California clapper rail within the LOHCP Plan Area, but suitable habitat is available.

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
Allen's hummingbird (<i>Selasphorus sasin</i>)	-	-	-	Breeds in a narrow strip along the Pacific coast, throughout California.	Inhabit mixed evergreen, riparian woodlands, eucalyptus and cypress groves, oak woodlands, and coastal sage scrub areas in breeding season.	Potential to occur. The CNDDDB (2016) and existing literature have no records Allen's hummingbird within the LOHCP Plan Area, but suitable habitat is available.
Yellow warbler (<i>Setophaga petechial</i>)	-	-	SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes in the Sierra Nevada; winters along the Colorado River and in parts of Imperial and Riverside counties; two small permanent populations in San Diego and Santa Barbara counties.	Breeds in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland.	Potential to occur. The CNDDDB (2016) and existing literature have no records for the yellow warbler within the LOHCP Plan Area.
California spotted owl (<i>Strix occidentalis occidentalis</i>)	-	CT	SSC	The south Cascade Range and northern Sierra Nevada from near Burney (Pit River), Shasta County, California south through the remainder of the western Sierra Nevada and Tehachapi Mountains to Lebec, Kern County.	In northern California it resides in dense, old growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats. In southern California, it occurs at low elevations (sea level to 3,300 ft.), and occupies habitats dominated by hardwoods, primarily oak and oak-conifer woodlands.	Potential to occur. The CNDDDB (2016) and existing literature have no records for California spotted owl within the LOHCP Plan Area, but suitable habitat is available.
Elegant tern (<i>Thalasseus elegans</i>)	-	-	WL	Breed in nesting colonies located in southern California. Disperse northward to central and northern California following breeding season.	Found along the shallow waters of estuaries and bays along the ocean. During the breeding season, they nest on sandy or rocky islands.	Potential to occur. The CNDDDB (2016) and existing literature have no records for elegant tern within the LOHCP Plan Area, but suitable habitat is available.

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
California thrasher (<i>Toxostoma redivivum</i>)	-	-	-	Endemic in what is known as the California Biotic Province (mostly in the western part of the state).	Breeds from sea level to the higher parts of the montane chaparral. It will breed in adjacent oak woodlands and pine-juniper scrub as well as occasionally in parks and gardens, but only if dense cover is available.	Potential to occur. The CNDDDB (2016) and existing literature have no records for California thrasher within the LOHCP Plan Area, but suitable habitat is available.
Mammals						
Pallid bat (<i>Antrozous pallidus</i>)	-	-	SSC	Occur throughout California, except in the high Sierra Nevada.	Inhabit a variety of habitats, including grasslands, shrublands, woodlands, and forests from sea level up through mixed coniferous forests.	Potential to occur. The CNDDDB (2016) and existing literature have no records for pallid bat occurrence within the LOHCP Plan Area, but suitable habitat is available.
Morro Bay kangaroo rat (<i>Dipodomys heermanni morroensis</i>)	FE	SE	FP	Restricted to stabilized sand dunes south of Morro Bay in San Luis Obispo County.	Associated with coastal sage scrub and chaparral communities on stabilized sand dunes.	Known. The CNDDDB (2016) has five records for Morro Bay kangaroo rat within the LOHCP Plan Area.
Southern sea otter (<i>Enhydra lutris nereis</i> ⁵)	FT	-	FP	Año Nuevo, San Mateo County to Point Sal, Santa Barbara County.	Shallow ocean waters, particularly in the vicinity of kelp beds.	Potential to occur. The CNDDDB (2016) and existing literature have no records for southern sea otter within the LOHCP Plan Area, but suitable habitat is available.
Long-eared myotis (<i>Myotis evotis</i>)	-	-	-	Widespread in California but avoids the arid Central Valley and hot deserts. Occurs along the entire coast and in the Sierra Nevada, from sea level to at least 9,000 ft.	Prefers coniferous woodlands and forests, but is found in brush, woodland, and forest habitats.	Potential to occur. The CNDDDB (2016) and existing literature have no records for long-eared myotis within the LOHCP Plan Area, but suitable habitat is available.

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Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	-	-	SSC	Found in two disjunct areas in California. Found throughout southern California, with range extending northward along the coast to Monterey County, and along the Coast Range to San Francisco Bay.	Common to abundant from sea level to 8,500 feet in a variety of habitats which includes Joshua tree, pinyon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert habitats.	Potential to occur. The CNDDDB (2016) and existing literature have no records for San Diego desert woodrat within the LOHCP Plan Area, but suitable habitat is available.
Harbor seal (<i>Phoca vitulina</i>)	-	-	-	Found on California islands and along entire mainland coast.	Prefers to remain close to shore in subtidal and intertidal habitats. Often swims into bays and estuaries. Groups form on emergent offshore and tidal rocks, mudflats, sandbars, and sandy beaches.	Potential to occur. The CNDDDB (2016) and existing literature have no records for harbor seal within the LOHCP Plan Area, but suitable habitat is available.
Mexican free-tailed bat (<i>Tadarida brasiliensis</i>)	-	-	-	Found throughout California, mostly absent from high Sierra Nevada (from Tehama to Tulare cos.) and north coastal region (from Del Norte and Siskiyou counties to northern Sonoma County).	All habitats up through mixed conifer forests are used, but open habitats such as woodlands, shrubland, and grasslands are preferred. Requires caves, mine tunnels, crevices, or buildings for roosting and hibernation.	Potential to occur. The CNDDDB (2016) and existing literature have no records for Mexican free-tailed bat within the LOHCP Plan Area, but suitable habitat is available.
American badger (<i>Taxidea taxus</i>)	-	-	SSC	An uncommon, permanent resident found throughout most of the state, with the exception of the North coast area.	Grasslands, savannas, mountain meadows, and openings in desert scrub.	Potential to occur. The CNDDDB (2016) and existing literature have no records for American badger within the LOHCP Plan Area, but suitable habitat is available.

¹ **ESA Status:** Listing Status under the Federal Endangered Species Act

FE: Federal Endangered

FT: Federal Threatened

² **CESA Status:** Listing Status under the California Endangered Species Act

Table A-1: Animal Species Summaries

Species	ESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Area ⁴
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SE: State Endangered

ST: State Threatened

³ Other State Designations

FP: Fully Protected - may not be taken or possessed at any time without a permit for necessary scientific research or relocation

SSC: Species of Special Concern

WL: Watch List - previously SSCs but no longer merit SSC status

⁴ Based on known records and observations, which are not comprehensive of all actual occurrences and therefore underrepresent species distributions.

⁵ The southern sea otter (*Enhydra lutris neris*) has a Special Species of Concern designation by the Marine Mammal Commission

A.2 Plant Species Summaries

Table A-2: Plant Species Summaries

Species	FESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Plan Area ⁴
Vascular Plants						
Hoover’s bentgrass (<i>Agrostis hooveri</i>)	-	-	1B.2	Native and endemic to California. Occurs in Los Osos Valley, San Luis Valley, and the east slope of Santa Lucia Mountains in San Luis Obispo County and south to La Purisima Hills in Santa Barbara County.	Occurs in chaparral, cismontane woodland, and valley foothill grassland communities with dry sandy soil.	Potential to occur. The CNDDDB (2016) and existing literature have no records for Hoover’s bent grass within the LOHCP Plan Area.
Arroyo de la Cruz manzanita (<i>Arctostaphylos cruzensis</i>)	-	-	1B.2	Found in San Luis Obispo and Monterey counties.	Found in broad-leaved upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland.	Known. The CNDDDB (2016) has one record for Arroyo de la Cruz manzanita within the LOHCP Plan Area.
Santa Lucia manzanita (<i>Arctostaphylos luciana</i>)	-	-	1B.2	San Luis Obispo County endemic found in locally abundant stands in the southern portion of the Santa Lucia mountain range.	Found in chaparral and woodland areas, on shale substrates and outcrops on hill slopes.	Potential to occur. The CNDDDB (2016) and existing literature have no records for Santa Lucia manzanita within the LOHCP Plan Area, which largely features inappropriate substrate for the species.
Morro manzanita (<i>Arctostaphylos morroensis</i>)	FT	-	1B.1	San Luis Obispo County, from Morro Bay to just south of Hazard Canyon.	The distribution of Morro manzanita is correlated with Baywood fine sand and is found in association with coastal sage scrub, central maritime chaparral, and coast live oak woodland communities in sites with no or low to moderate slopes.	Known. The CNDDDB (2016) has three records for Morro manzanita, which is known to occur throughout much of the central maritime chaparral within the LOHCP Plan Area.

Table A-2: Plant Species Summaries

Species	FESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Plan Area ⁴
Oso manzanita (<i>Arctostaphylos osoensis</i>)	-	-	1B.2	Narrowly endemic to the mountains north of Los Osos Valley, San Luis Obispo County.	Grows in chaparral and in cismontane woodland on dacite porphyry buttes.	Known. The CNDDDB (2016) has one record for Oso manzanita within the LOHCP Plan Area.
Pecho manzanita (<i>Arctostaphylos pechoensis</i>)	-	-	1B.2	California endemic found in the Pecho Hills area of San Luis Obispo County.	Closed-cone coniferous forest, chaparral, coastal scrub, siliceous shale outcrops.	Potential to occur. The CNDDDB (2016) and existing literature have no records for Pecho manzanita within the LOHCP Plan Area.
Dacite manzanita (<i>Arctostaphylos tomentosa</i> ssp. <i>daciticola</i>)	-	-	1B.1	Near Cambria and northeastern portion of Los Osos Valley, San Luis Obispo County.	Located in chaparral and cismontane woodland on dacite porphyry buttes.	Potential to occur. The CNDDDB (2016) and existing literature have no records for dacite manzanita within the LOHCP Plan Area.
Marsh sandwort (<i>Arenaria paludicola</i>)	FE	SE	1B.1	Occur within the counties of Los Angeles, San Bernardino (in southern San Bernardino), Santa Cruz (Felton), San Francisco (northern), and San Luis Obispo (Oceano).	Stoloniferous, perennial herb; blooms May to August; occurs in freshwater marshes and swamps, bogs, and fens, and some coastal scrub, ranging from 10 to 558 feet in elevation; common associates include Typha, Juncus, and Scirpus.	Known. The CNDDDB (2016) has one record for marsh sandwort within the LOHCP Plan Area.
Coulter's saltbush (<i>Atriplex coulteri</i>)	-	-	1B.2	Primarily found in South Coast of California: Channel Islands and Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, and San Diego counties. Four record accounts in San Luis Obispo County (CalFlora 2011).	Coastal dunes, coastal scrub, and edges of coastal salt and brackish marsh and swamp communities between 1 and 35 m elevation.	Potential to occur. The CNDDDB (2016) and existing literature have no records for Coulter's saltbush within the LOHCP Plan Area.
Cambria morning-glory (<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>)	-	-	4.2	Found in central Outer South Coast Ranges in San Luis Obispo County.	Chaparral and cismontane woodland at elevations from 60 to 500 meters. Perennial herb that blooms from April to May.	Potential to occur. The CNDDDB (2016) and existing literature have no records for Cambria morning-glory within the LOHCP Plan Area.

Table A-2: Plant Species Summaries

Species	FESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Plan Area ⁴
Hardham's evening-primrose (<i>Camissoniopsis hardhamiae</i>)	-	-	1B.2	Grows in outer South Coast Ranges in both Monterey and San Luis Obispo counties.	Prefers sandy soil, limestone, and disturbed oak woodland.	Known. The CNDDDB (2016) has one record for Hardham's evening-primrose within the LOHCP Plan Area.
Coastal goosefoot (<i>Chenopodium littoreum</i>)	-	-	1B.2	Endemic to the south central coast between Los Angeles and San Luis Obispo counties	Coastal dunes and other sandy soils	Known. The CNDDDB (2016) has two records for coastal goosefoot within the within the LOHCP Plan Area.
Salt marsh bird's beak (<i>Chloropyron maritimum ssp. maritimum</i>)	FE	SE	1B.2	Cuesta-By-The-Sea and at Sweet Springs Marsh, San Luis Obispo County.	Grows in the higher reaches of coastal salt marshes to intertidal and brackish areas influenced by freshwater input.	Known. The CNDDDB (2016) has one record for salt marsh bird's beak within the LOHCP Plan Area.
Compact cobwebby thistle (<i>Cirsium occidentale var. compactum</i>)	-	-	1B.2	Grows in Central Coast (San Luis Obispo, Monterey counties, formerly San Francisco).	Chaparral, coastal dunes coastal prairie, coastal scrub at elevations from 5 to 150 meters. Perennial herb that blooms from April to June.	Potential to occur. The CNDDDB (2016) and existing literature have no records for compact cobwebby thistle within the LOHCP Plan Area.
Surf thistle (<i>Cirsium rhotophilum</i>)	-	ST	1B.2	An endemic to the dunes of southern San Luis Obispo and northern Santa Barbara counties.	Perennial herb; blooms April through June; ranges in elevation from 10 to 197 feet; occurs in coastal dune and coastal bluff scrub communities.	Potential to occur. The CNDDDB (2016) and existing literature have no records for surf thistle within the LOHCP Plan Area.
Blochman's leafy daisy (<i>Erigeron blochmaniae</i>)	-	-	1B.2	Endemic to Santa Barbara and San Luis Obispo counties.	Rhizomatous, perennial herb; blooms July through August; ranges from 10 to 147 feet in elevation and occurs in coastal dunes and coastal scrub.	Known. The CNDDDB (2016) has two records for Blochman's leaf daisy within the LOHCP Plan Area. Blochman's leafy daisy is also found in undisturbed areas of the LOHCP Plan Area (J. Chesnut, pers. comm.). The species has also been documented on Bayview Unit of the Morro Dunes E.R. (Holland and Kiel 1985).

Table A-2: Plant Species Summaries

Species	FESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Plan Area ⁴
Saint's daisy (<i>Erigeron sanctarum</i>)	-	-	4.2	Occur in Santa Barbara, Santa Cruz Island, Santa Rosa Island, and San Luis Obispo	Found in chaparral, cismontane woodland, and coastal scrub.	Known. The CNDDDB (2016) has no records for Saint's daisy within the LOHCP. However, it has been documented throughout the LOHCP Plan Area by Holland and Keil (1985).
Indian Knob mountainbalm (<i>Eriodictyon altissimum</i>)	FE	SE	1B.1	Between San Luis Obispo and Pismo Beach on Indian Knob Ridge, San Luis Obispo County.	Central maritime chaparral and coastal scrub. Ridges in open, disturbed areas within chaparral on Pismo sandstone.	Known. The CNDDDB (2016) has two records for Indian Knob mountainbalm within the LOHCP Plan Area; the one in the center of the Bayview Unit of the Morro Dunes Ecological Reserve is extant (USFWS 2016a).
Suffrutescent wallflower (<i>Erysimum suffrutescens</i>)	-	-	4.2	Found in coastal regions of Los Angeles County northward into San Luis Obispo, Santa Barbara, and Ventura counties.	Flowers from December to August and is found on stabilized coastal sand dunes and coastal scrub vegetation from 0 to 150 m elevation.	Potential to occur. The CNDDDB (2016) and existing literature have no records for suffrutescent wallflower within the LOHCP Plan Area. However, this species has been documented on the Broderson Site and adjacent Morro Dunes Ecological Reserve (MBA 2008).
Mesa horkelia (<i>Horkelia cuneata</i> ssp. <i>puberula</i>)	-	-	1B.1	Generally found in dry, sandy soils with coastal chaparral.	Sandy or gravelly sites in chaparral, cismontane woodland, and coastal scrub communities between 70 and 810 m elevation.	Known. The CNDDDB (2016) has one record for mesa horkelia within the LOHCP Plan Area.
Kellogg's horkelia (<i>Horkelia cuneata</i> ssp. <i>sericea</i>)	-	-	1B.1	Found coastally along central coast and outer south coast ranges.	Perennial herb; blooms April through September; ranges from 33 to 656 feet in elevation; occurs in closed-cone coniferous forest, maritime chaparral, and coastal scrub on sandy or gravelly soils, often in open areas.	Potential to occur. The CNDDDB (2016) and existing literature have no records for Kellogg's horkelia within the LOHCP Plan Area.

Table A-2: Plant Species Summaries

Species	FESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Plan Area ⁴
Coulter's goldfields (<i>Lasthenia glabrata</i> <i>ssp. coulteri</i>)	-	-	1B.1	From interior portions of Monterey County, south to coastal and interior portions of San Diego County, and on Santa Rosa Island.	Occurs in coastal salt marshes.	Known. The CNDDDB (2016) has one record of known occurrence for Coulter's goldfields within the LOHCP Plan Area. The species is also known to occur on the undeveloped lots at the shore end of Pine and Ramona (J Chestnut, pers. comm.).
Carmel Valley bush-mallow (<i>Malacothamnus palmeri</i> var. <i>involutus</i>)	-	-	1B.2		Chaparral, cismontane woodlands; talus hills and slopes, sometimes on serpentine. Commonly found in burned area. Elevations from 90 to 3,500 feet.	Potential to occur. The CNDDDB (2016) and existing literature have no records for Carmel Valley bush-mallow within the LOHCP Plan Area.
Crisp monardella (<i>Monardella undulata</i> <i>ssp. crispa</i>)	-	-	1B.2	Known in Santa Barbara and San Luis Obispo counties. Occurs in the dunes of Point Arguello, Guadalupe, Point Sal, Casmalia, and Oceano.	Rhizomatous, perennial herb; blooms April through August; ranges from 33 to 394 feet in elevation and occurs on sandy soils in coastal dunes and coastal scrub.	Potential to occur. The CNDDDB (2016) and existing literature have no records for crisp monardella within the LOHCP Plan Area.
San Luis Obispo monardella (<i>Monardella undulata</i> <i>ssp. undulata</i>)	-	-	1B.2	San Luis Obispo monardella is found from Marin to Santa Barbara counties.	Occurs in coastal sand dune, chaparral, and coastal scrub communities.	Known. The CNDDDB (2016) and existing literature have no records for San Luis Obispo monardella within the LOHCP Plan Area. However, Holland and Keil (1985) have documented the species within Los Osos.
Coast woolly-head (<i>Nemacaulis denudata</i> var. <i>denudata</i>)	-	-	1B.2	South central coast between San Luis Obispo and San Diego counties	Coastal dunes and beaches	Known. The CNDDDB (2016) has one record for this species within the LOHCP Plan Area.

Table A-2: Plant Species Summaries

Species	FESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Plan Area ⁴
Short-lobed broomrape (<i>Orobanche parishii</i> ssp. <i>brachyloba</i>)	-	-	4.2	San Diego County, San Luis Obispo County, San Nicolas Island, Santa Catalina Island, Santa Cruz Island, San Miguel Island, Santa Rosa Island; Baja California and Isla Guadalupe, Mexico.	Found in coastal bluff scrub and coastal dunes.	Potential to occur. The CNDDDB (2016) and existing literature have no records for short-lobed broomrape within the LOHCP Plan Area.
Sand almond (<i>Prunus fasciculata</i> var. <i>punctata</i>)	-	-	4.3	Endemic to Santa Barbara and San Luis Obispo counties.	Found in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and sand.	Known. The CNDDDB (2016) has no records for sand almond within the LOHCP Plan Area. However, previous surveys by Morro Group have documented sand almond within the LOHCP Plan Area.
Chaparral ragwort (<i>Senecio aphanactis</i>)	-	-	2B.2	Found growing in central western California, south coast, and Channel Islands.	Found in chaparral, cismontane woodland, coastal scrub/alkaline.	Potential to occur. The CNDDDB (2016) and existing literature have no records for chaparral ragwort within the LOHCP Plan Area.
California seablite (<i>Suaeda californica</i>)	FE	-	1B.1	Grows along central coast and specifically occurs along the perimeter of Morro Bay in San Luis Obispo County.	It is restricted to the upper intertidal zone within coastal marsh habitat.	Known. The CNDDDB (2016) has one known occurrence for California seablite within the LOHCP Plan Area in Baywood Park at Sweet Springs Marsh. It is also found on the shoreline of Morro Bay on undeveloped properties/
Lichens						
Spiraled old man's beard (<i>Bryoria spiralifera</i>)	-	-	1B.1	North and Central Coastal California endemic. Humboldt, Sonoma, Monterey, and San Luis Obispo counties.	Occurs on twigs and small branches of trees and older shrubs within coast live oak woodland, chaparral, and coastal scrub.	Known. The CNDDDB (2016) and existing literature have three records for spiraled old man's beard within the LOHCP Plan Area.

Table A-2: Plant Species Summaries

Species	FESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Plan Area ⁴
Popcorn lichen (<i>Cladonia firma</i>)	-	-	2B.1	Believed to only occur in the Elfin Forest in Los Osos.	Common at the base of small shrubs.	Known. The CNDDDB (2016) has three records for popcorn lichen within the LOHCP Plan Area.
Los Osos black and white lichen (<i>Hypogymnia mollis</i>)	-	-	-	Fog belt of Central California: Monterey, San Luis Obispo, Riverside, and San Diego County.	Occurs on bark and twigs of trees and older shrubs in Coast Live Oak Woodland, Chaparral, and Coastal Scrub.	Known. The CNDDDB (2016) does not have any occurrences for Los Osos black and white lichen within the LOHCP Plan Area. The Consortium of North American Lichen Herbaria documents 5 occurrences of Los Osos Black and White lichen within the LOHCP Plan Area (CCH 2016).
Long fringed parmotrema (<i>Parotrema hypolecinum</i>)	-	-	-	Fog belt of Central and Southern California: Marin, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Diego County.	Occurs on bark and twigs of trees and older shrubs in Coast Live Oak Woodland, Chaparral, Coastal Scrub, and Arroyo Willow Series.	Known. The CNDDDB (2016) does not have any occurrences for long-fringed parmotrema within the LOHCP Plan Area. The Consortium of North American Lichen Herbaria documents two occurrences of long fringed parmotrema within the LOHCP Plan Area (CCH 2016).
Splitting yarn lichen (<i>Sulcaria isidiifera</i>)	-	-	1B.1	Los Osos/Baywood Park area, San Luis Obispo County.	On trunks of coast live oaks, chamise and Ceanothus.	Known. The CNDDDB (2016) has four records for splitting yarn lichen within the LOHCP Plan Area.

¹ **ESA Status:** Listing Status under the Federal Endangered Species Act

FE: Federal Endangered

FT: Federal Threatened

² **CESA Status:** Listing Status under the California Endangered Species Act

SE: State Endangered

ST: State Threatened

³ **Other State Designations**

California Rare Plant Rank Designations:

List 1B: Plants rare, threatened, or endangered in California and elsewhere

Table A-2: Plant Species Summaries

Species	FESA ¹	CESA ²	Other State ³	Distribution	Preferred Habitat	Occurrence in LOHCP Plan Area ⁴
List 2B: Plants rare, threatened, or endangered in California, but more common elsewhere						
List 3: Plants about which more information is needed—a review list						
List 4: Plants of limited distribution or infrequent presence throughout California —a watch list						
California Rare Plant Threat Ranks, represented as decimals after status categories (e.g., “List 1B.1”):						
0.1: Seriously threatened populations						
0.2: Marginally threatened populations						
0.3: Populations with limited threats						

⁴ Based on known records and observations, which are not comprehensive of all actual occurrences and therefore underrepresent species distributions.