

4.3 BIOLOGICAL RESOURCES

This section analyzes the potential impacts to biological resources from the proposed Zone 2 Landslide Moratorium Ordinance revisions, which could facilitate the future development of up to 31 new single family residences on undeveloped lots within the Portuguese Bend community. Both direct impacts associated with site development and indirect impacts to off-site biological resources are addressed. The following analysis is based on a Habitat Assessment performed by Rincon Consultants in 2010 (January 2011; see attached Appendix C) and a biological resources reconnaissance survey conducted in 2018, which is described in this section and intended to update, as necessary, the prior 2010 assessment.

4.3.1 Setting

a. Site Setting. The project area is the 112-acre Zone 2 area located in the Portuguese Bend community within the City of Rancho Palos Verdes, County of Los Angeles, California. The project area is separated from residential areas of the City to the northeast and northwest by City-owned open space in the Palos Verdes Nature Preserve (PVNP, Preserve), which was formed under the California Natural Community Conservation Planning (NCCP) Act of 1991 and the federal Habitat Conservation Plan (HCP). The original updated NCCP/HCP was accepted by the City Council in August 2004, but was not finalized due to, among other things, contemplated changes to the configuration of the overall PVNP. Since 2004, the City in collaboration with the Wildlife Agencies (federal and state Fish and Wildlife Agencies) updated the City's NCCP/HCP for the City Council's consideration. The updated NCCP/HCP was accepted by City Council in March 2018 and on October 31, 2018, notice of receipt of the NCCP/HCP was given by the U.S. Fish & Wildlife Service and comments were requested. The PVNP is comprised of 12 subareas referred to as "reserves." The area to the northeast of the project area is the Portuguese Bend Reserve and to the northwest is the Filiorum Reserve (formerly known as the "Upper Filiorum"). To the south, southeast, and east of the project area are developed and undeveloped residential lots in the Portuguese Bend community, as well as the undevelopable "Neutral Lands" designated in the City's NCCP/HCP Subarea Plan. The project area consists of 111 lots, 80 of which are developed and 31 of which are undeveloped.

A biological resources survey of the project area was conducted on May 4, 2010, to characterize the existing habitat conditions within the project boundary plus an additional 100-foot wide area at the perimeter. The reconnaissance-level survey included a rapid assessment of all vegetative habitat types to define relatively large, ecologically cohesive regions. Since access to individual lots was not provided, specific lot-by-lot searches for special status plant and animal species were not conducted. The field reconnaissance was performed via binocular survey from the roadside of the individual lots. Open space areas and the outside perimeter of lots were walked where access was available. An additional survey was conducted on November 28, 2018 to assess any changes to project area conditions since the 2010 survey was conducted.

The 2010 and 2018 survey efforts were focused on those areas where undisturbed habitat types (i.e., coastal sage scrub and grassland) were thought to be present based on aerial photography. However, the survey efforts indicated that almost all of the study area had been highly disturbed by various activities. Therefore, the surveys concentrated on those areas containing irregular topography (i.e., slumps, swales, and outcrops), changes or transitions in vegetative



cover, and exposed rock outcrops because these represented the most suitable habitat for the target list of special-status species that were the focus of this investigation. General information gathered during the field reconnaissance included composition, habitat, site quality, dominant plant species, disturbance history, and anthropogenic impacts.

Assessment of the vegetative habitat types provides a method to define habitat quality and integrity for plant and animal distributions and the possible suitability for presence of special-status species. During the 2010 survey, an aerial photograph with APN property boundaries was used during the field surveys to assist in accurately mapping the extent of habitats encountered. The habitat map developed after the 2010 survey was used during the 2018 survey effort.

The habitats within the project boundary at the time of both surveys included undeveloped individual residential lots and contained a high level of disturbance, landscaping, and other human interaction. Aerial photography examined prior to the 2010 survey suggested the presence of coastal sage scrub-dominated plant communities along the perimeter of the project boundary. Furthermore, review of the maps prepared for the City's NCCP Subarea Plan (dated approximately 2004) indicated the presence of host plants for Palos Verdes Blue Butterfly and coastal sage scrub adjacent to the northwestern portion of the project area within the Filiorum Reserve, and coastal sage scrub along Altamira Canyon. However, during the 2010 survey it was found that the perimeter of almost all of the study area had been recently mowed or 'weed-wacked' to approximately 10 inches in height, presumably for fire clearance. Binocular survey of the habitats outside the 100-foot-wide buffer area observed patchy and highly disturbed coastal sage scrub habitat with limited distribution of California sage (*Artemisia californica*), California brittlebush (*Encelia californica*), blue elderberry (*Sambucus nigra* ssp. *canadensis*) and toyon (*Heteromeles arbutifolia*) surrounded by non-native annual herbs and grasses. The encelia-dominated coastal sage scrub mapped along Altamira Canyon at the northern project boundary was no longer intact, with the area grazed and mostly comprised of annual grassland with scattered native shrubs. Prior to the 2018 survey, current aerial maps, the 2010 General Habitat Map, and the 2018 NCCP/HCP were reviewed. During the 2018 survey, project area conditions were generally the same with additional residential developments added in areas that were identified as annual grassland or disturbed during the 2010 survey. A General Habitat Map is provided in Figure 4.3-1. This figure includes areas previously mapped as containing coastal sage scrub and remnant stands that may still be present, or could regrow in future years prior to development of individual lots. Appendix C contains the 2010 General Habitat Map.

b. Vegetation. Assessment of the existing habitats visible by the field reconnaissance is best described by the following two habitat types.

California annual grassland series/Ruderal/Disturbed Vegetation/Disturbed Areas. This habitat series includes a collection of species-specific stands strongly dominated by annual or short-lived plants composed of many non-native and native annual species. The series is found at elevations ranging from 0 – 3900 feet. Biotic factors (precipitation, temperature, canopy cover and topography) can vary the composition within a relatively small area (under 5 acres). While this is primarily defined as grassland, many annual herbaceous plants are commonly found within this habitat, with overall community height less than 3 feet. The comparable anthropogenic-ruderal community includes plants and plant communities that



thrive in disturbed areas commonly associated with waste areas, roadsides, agriculture, farming or similarly disturbed by human activity. Ruderal communities are dominated by non-native grasses or herbs originating from nearby cultivation, horticultural escapes or other outside sources (soil movement, animal disturbance).

The 2006 *Initial Management and Monitoring Report For The Rancho Palos Verdes Draft Natural Community Conservation Plan And Habitat Conservation Plan* (Dudek 2007) describes this habitat as either Disturbed Areas or Disturbed Vegetation, and refers to plant associations on lands where the vegetation has been significantly altered. The NCCP/HCP describes Disturbed Vegetation as habitats that occur on highly disturbed sites in urbanized areas (along roadsides, footpaths and previously graded areas) that support weedy broadleaf and grass species (RPV 2018). Disturbed Areas refers to areas where vegetation has been significantly altered by frequent disking or mowing specifically associated with fire protection and little to no vegetation cover remains. These habitats support typically non-native weedy broadleaf species, including Russian thistle (*Salsola tragus*), mustards (*Brassica* spp.), and annual non-native grasses.

The dominant species found within this habitat include tocalote (*Centaurea melitensis*), wild oats (*Avena fatua*), horehound (*Marrubium vulgare*), mustards (*Brassica nigra*, *Brassica campestris*, *Hirschfeldia incana*), fennel (*Foeniculum vulgare*) and bromes (*Bromus diandrus*, *B. hordeaceus*, *B. madritensis* ssp. *rubens*). Around the perimeter of the Portuguese Bend community, this habitat had been mowed in a 100-foot swath, presumably for prescribed fire clearance.

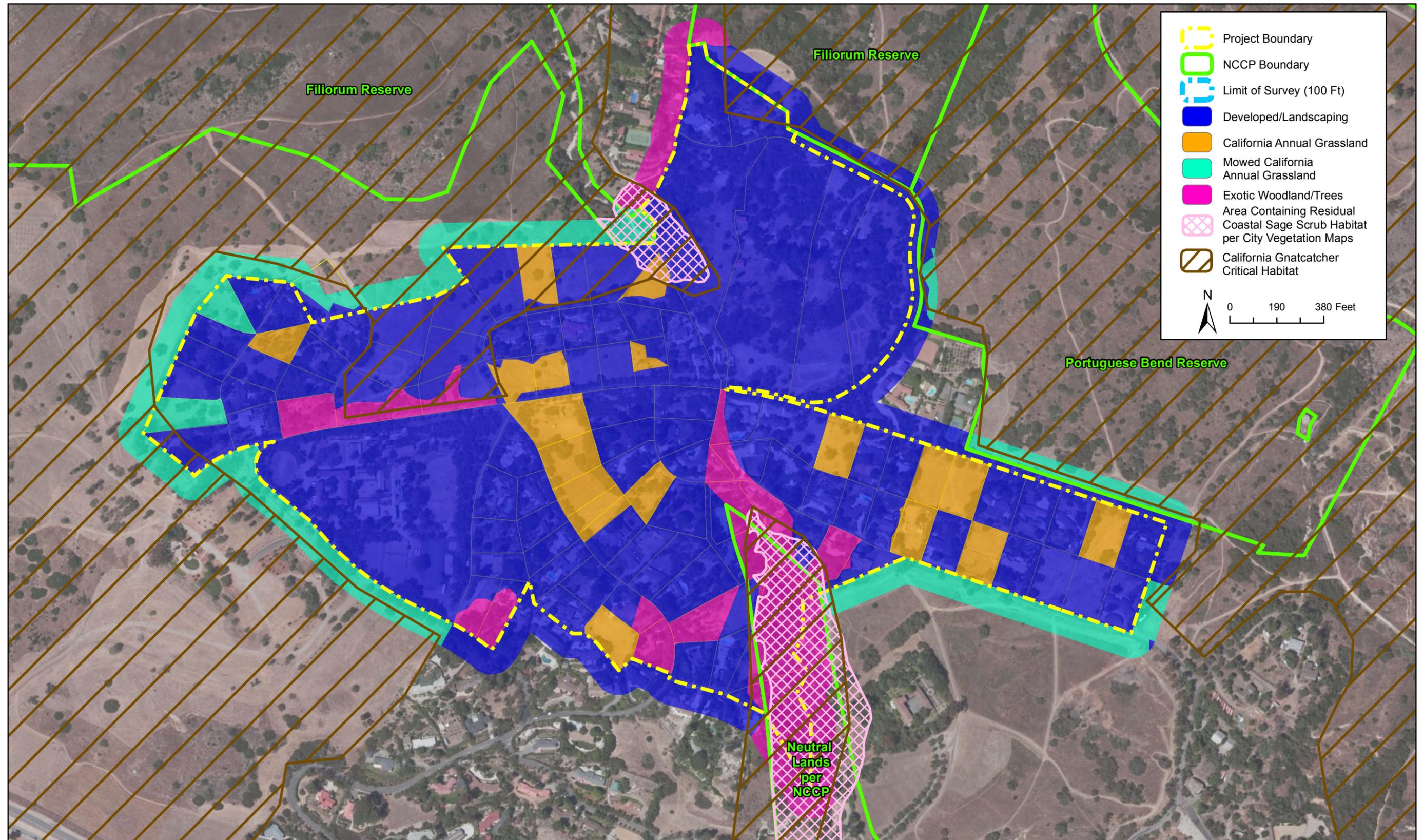
Exotic Woodland. This habitat includes non-native trees and shrubs along the Altamira Canyon drainage that bisects the Portuguese Bend community. Some of these introduced species are invasive and have dispersed into the adjacent grassland and native habitats. Within the survey area, this habitat abuts many of the developed properties and associated roadways. The dominant species found within this habitat include many non-native landscape trees, including multiple gum trees (*Eucalyptus* spp.), pepper trees (*Schinus molle*), acacia (*Acacia* spp.), myoporum (*Myoporum laetum*), pines (*Pinus* spp.) and olive trees (*Olea europaea*). Some small remnant stands of coastal sage scrub vegetation are present in this habitat type along Altamira Canyon.

c. Wildlife. The following species were observed at the time of the 2010 and 2018 surveys: coyote (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi*), Audubon's cottontail (*Sylvilagus audubonii*), western fence lizard (*Sceloporus occidentalis*), American crow (*Corvus brachyrhynchos*), red-tailed hawk (*Bufo jamaicensis*), and mourning dove (*Zenaida macroura*). In addition to domesticated species such as dogs, cats, and horses, an extensive population (approximately 80 individuals) of Indian peacocks (*Pavo cristatus*) were observed scattered around the Portuguese Bend community in both 2010 and 2018.



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Generalized Habitat Map

Figure 4.3-1

Back of Figure 4.3-1 (11 x 17)



d. Wildlife Corridors. The project area is adjoined to the northeast and northwest by the Portuguese Bend and Filiorum Reserves of the PVNP, creating a contiguous section of regionally important habitat areas and natural vegetation. While these contiguous habitat areas are an important corridor for all wildlife, the Portuguese Bend Reserve and Filiorum Reserve also include designated California Gnatcatcher Critical Habitat. Altamira Canyon may also serve as a link for wildlife to pass through the study area; however, such movement is limited by existing residential land uses that are close to the drainage and the dominance of exotic woodlands within the drainage.

e. Special Status Species. A list of special-status species evaluated in this survey was developed based on a review of the California Natural Diversity Database (CNDDDB) RareFind5 (November 2018), species listed as part of the NCCP/HCP program, previous studies of the region, as well as Rincon staff knowledge of the area. Table 1 of the Habitat Assessment in Appendix C provides the California Native Plant Society (CNPS) Rare Plant Rank (RPR) Definitions and Table 2 provides the CNPS RPR Threat Code Extensions. The aforementioned databases were used to update the database search conducted in March 2010. The rankings and potential for occurrence of each species previously identified were revised as necessary. The CNDDDB Element Ranking system (Table 3 of the Habitat Assessment) provides a numeric global and state-ranking system for all special-status species tracked by the CNDDDB. The global rank (G-rank) is a reflection of the overall condition of an element (species or natural community) throughout its global range. The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

Listed species are those that are formally listed as endangered or threatened by the federal government (e.g. U.S. Fish and Wildlife Service [USFWS]), pursuant to the Federal Endangered Species Act (FESA) or as endangered, threatened, or rare (for plants only) by the State of California (i.e. California Department of Fish and Wildlife [CDFW]), pursuant to the California Endangered Species Act (CESA) or the California Native Plant Protection Act. During the listing process for federal species, “critical habitat” may also be designated. Additional species are considered rare (but not formally listed) by various resource agencies, organizations with biological interests/expertise (e.g., Audubon Society, CNPS, The Wildlife Society), and the scientific community. As part of the City’s NCCP/HCP process, several taxa are included as “covered species” and are considered locally rare.

Special Status Plants. Due to the highly disturbed and landscaped nature within the project boundary and the recently mowed condition of the 100-foot buffer area at the time of the May 2010 and November 2018 field reconnaissance surveys, none of the sixteen (16) special status plants are considered to be likely to be found within the survey area. Special status plants could potentially occur within the patchy coastal sage scrub outside the survey area but none were observed during the reconnaissance survey. Additionally, no rare plants were found near the vicinity of the Portuguese Bend community during previous botanical surveys conducted for the Draft NCCP/HCP (Dudek April 2007). No critical habitat for listed threatened or endangered plants occurs within the survey area (U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal. Table 4.3-1 lists the special status plant species and their regulatory status, habitat and ecological requirements.



Special Status Wildlife. Due to the highly disturbed and landscaped nature of the project area and the recently mowed condition of the 100-foot buffer area, none of the sixteen (16) special status wildlife species are likely to be found survey area except on a rare, transient basis. Special status wildlife could potentially occur within the patchy coastal sage scrub outside the survey area, but no suitable habitat for these species, including larval and adult host plants, were observed within the study area boundaries. Table 4.3-2 provides the listed wildlife species and their regulatory status, habitat and ecological requirements.

Coastal California Gnatcatcher. Coastal California gnatcatcher (CAGN) is listed as a federally threatened species (USFWS 1993) and a CDFW Species of Special Concern. Coastal California gnatcatcher is the northernmost of three subspecies currently recognized for the species. It is restricted to arid, lowland areas and has a range from southwestern California to northwestern Baja California. Within the U.S., the current range of the coastal California gnatcatcher is generally within San Diego, Orange, Los Angeles, eastern Ventura and western Riverside counties. It is a permanent resident of coastal sage scrub-dominated plant communities generally below 2,000 feet, and while strongly associated with coastal sage scrub, it will also use chaparral, grassland, and riparian plant communities where they occur adjacent to or intermixed with sage scrub. While it is found in coastal sage scrub, not all areas classified as coastal sage scrub are occupied. The breeding season of the CAGN extends from about February 15 through August 31, with the peak of nesting activity occurring from mid-March through mid-May. CAGN normally requires at least five to ten acres of coastal sage scrub for nesting and foraging, but CAGN have been observed breeding in small patches of suitable sage scrub surrounded by urban development, with the smallest being 0.5 acre. Despite the patchiness of CAGN distribution, the density of CAGN was highest in high-quality habitat and decreased as habitat quality decreased. Potential population size within the United States may range from 5,000 – 10,000 pairs.

The survey area contains no intact coastal sage scrub habitat, with only some scattered stands of this vegetation type apparently left along Altamira Canyon. Because coastal California gnatcatchers are present within the adjacent PVNP, with known presence in the Filiorum Reserve to the north of the study area (URS 2004, CDFW 2018 [Occurrence 30 from 2006]) and within the Portuguese Bend Reserve (Cooper 2018, CDFW 2018 [Occurrence 108 from 2006]), an occasional transient bird may be found in the study area on rare occasions, but no breeding or long term residency is likely or expected given the lack of suitable habitat. No protocol level studies are recommended for the study area as it does not contain the Primary Constituent Elements (PCEs) for the coastal California gnatcatcher, namely coastal sage scrub habitat or non-sage scrub habitat near to coastal sage scrub that could provide space for dispersal, foraging, and nesting.



**Table 4.3-1
Habitat Requirements for Special Status Plants with the Potential for Occurrence**

Common Name	Scientific Name	Status* Fed/State Listing/State Rank/CNPS	Habitat Requirements and Potential for Occurrence
Aphanisma	<i>Aphanisma blitoides</i>	--/--/S1/1B.2/RPV	Sandy soil near the coast in coastal bluff scrub and coastal sage scrub at elevations between 10 to 200 feet. Small annual herb blooming April to May. <i>No potential for occurrence, habitat lacking.</i>
Coulter's saltbush	<i>Atriplex coulteri</i>	--/--/S2/1B.2/	Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. 2-460 m. Perennial herb that blooms March – October. <i>No potential to occur on-site, habitat lacking.</i>
South coast saltscale	<i>Atriplex pacifica</i>	--/--/S2/1B.2/RPV	Coastal bluffs, coastal sage scrub and alkali playas from 0 – 450 feet. Prefers sandy openings between shrubs in xeric and mildly disturbed locales. Small, wiry, prostrate annual herb blooming March – October. <i>No potential for occurrence, habitat lacking.</i>
Parish's brittlescale	<i>Atriplex parishii</i>	--/--/S1/1B.1/	Shadscale scrub, alkali sink, freshwater wetlands, and wetland-riparian. Alkaline or clay soils below 1000 feet. Blooms June – October. <i>No potential for occurrence, habitat lacking.</i>
Davidson's saltscale	<i>Atriplex serenana</i> var. <i> davidsonii</i>	--/--/S1/1B.2/	Coastal bluff scrub, Coastal scrub with alkaline soils at elevations between 30 – 650 feet. Blooms April – October. <i>No potential for occurrence, habitat lacking.</i>
Southern tarplant	<i>Centromadia parryi</i> ssp. <i> australis</i>	--/--/S2/1B.1/	Salt marsh margins, mesic valley and foothill grasslands, vernal pools and alkaline areas below 1,400 feet. Blooms May – November. <i>No potential to occur on-site, habitat lacking.</i>
Catalina crossosoma	<i>Crossosoma californicum</i>	--/--/S3/1B.2/RPV	Dry, rocky slopes and canyons in coastal sage scrub below 1,600 feet. Deciduous shrub blooming that can reach 16 feet, blooms February - May. <i>No potential to occur on-site, habitat lacking.</i>
Island green dudleya	<i>Dudleya virens</i> ssp. <i> insularis</i>	--/--/S3/1B.2/RPV	Steep slopes in chaparral, coastal bluff scrub and coastal sage scrub below 1,300 feet. Bright green perennial succulent with basal rosette from caudex, blooms April - June. <i>No potential to occur on-site, habitat lacking.</i>
Mesa horkelia	<i>Horkelia cuneata</i> var. <i> puberula</i>	--/--/S1/1B.1/	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m. Perennial herb that blooms February – September. <i>No potential to occur on-site, habitat lacking.</i>
Coulter's goldfields	<i>Lasthenia glabrata</i> ssp. <i> coulteri</i>	--/--/S2/1B.1/	Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m. Annual herb that blooms February – June. <i>No potential to occur on-site, habitat lacking.</i>
Santa Catalina Island desert-thorn	<i>Lycium brevipes</i> var. <i> hassei</i>	--/--/S1/3.1/RPV	Coastal bluff slopes in coastal bluff scrub and coastal sage scrub at elevations below 1,000 feet. Deciduous shrub that can reach 13 feet high, blooms June. <i>No potential to occur on-site, habitat lacking.</i>
Mud nama	<i>Nama stenocarpa</i>	--/--/S1S2/2B.2/	Lake shores, river banks, intermittently wet areas. 5-500 m. Annual and perennial herb that blooms January - July. <i>No potential to occur on-site, habitat lacking.</i>
Lyon's pentachaeta	<i>Pentachaeta lyonii</i>	FE/SE/S2 /1B.1/RPV	Openings in chaparral and valley/foothill grasslands near the coast at elevations below 500 feet. Diminutive annual herb that blooms March - April. Normally found in soils derived from volcanic rocks. <i>No potential to occur on-site, habitat lacking.</i>
Brand's star phacelia	<i>Phacelia stellaris</i>	--/--/S1/1B.1/--	Coastal dunes and coastal scrub at elevations below 400 meters. Annual herb that blooms



**Table 4.3-1
Habitat Requirements for Special Status Plants with the Potential for Occurrence**

Common Name	Scientific Name	Status* Fed/State Listing/State Rank/CNPS	Habitat Requirements and Potential for Occurrence
			March – June. <i>No potential to occur on-site, habitat lacking.</i>
Estuary seablite	<i>Suaeda esteroa</i>	--/--/S2/1B.2/	Coastal salt marshes in clay, silt, and sand substrates. 0-80 m. Perennial herb that blooms May – Jan. <i>No potential to occur on-site, habitat lacking.</i>
Woolly seablite	<i>Suaeda taxifolia</i>	--/--/S2S3/4.2/RPV	Coastal bluffs and margins of salt marshes at elevations below 50 feet. Perennial herb that blooms May – October. <i>No potential to occur on-site, habitat lacking.</i>

Source: CDFW CNDDDB Special Vascular Plants, Bryophytes, and Lichens List, April 2010 and November 2018; CNDDDB 5-mile search radius, April 2010 and November 2018

FE = Federally Endangered; FT = Federally Threatened;
FC = Federal Candidate; FSC = Federal Species of Concern;
SE = State Endangered; SR = State Rare; RPV = listed in
Rancho Palos Verdes Subarea Plan as sensitive.

S1=<6 Eos (viable element occurrences) or <1,000 individuals or <2,000 acres
S2=6-20 Eos or 1,000-3,000 individuals or 2,000-10,000 acres
S3=21-80 Eos or 3,000-10,000 individuals or 10,000-50,000 acres

**Table 4.3-2
Special Status Wildlife Species with the Potential for Occurrence**

Common Name	Scientific Name	Status* Fed/State Listing/State Rank/CNPS	Habitat Requirements and Potential for Occurrence
Southern California legless lizard	<i>Anniella stebbinsi</i>	--/--/S3/SSC/	Occurs in a variety of habitats; generally in moist, loose soil. They prefer soils with high moisture content. <i>No potential to occur on-site, habitat lacking.</i>
sandy beach tiger beetle	<i>Cicindela hirticollis gravida</i>	--/--/S2/--	Inhabits areas adjacent to non-brackish water along the coast, primarily within sand dunes. <i>No potential for occurrence, habitat lacking.</i>
coastal cactus wren	<i>Campylorhynchus brunnelcapillus</i>	--/--/S3/SSC/NCCP (San Diego & Orange Counties only)	Inhabits coast sage scrub habitat dominated by patches of tall <i>Opuntia</i> cactus. Only the sub-populations in Orange and San Diego Counties are considered special status (Shuford & Gardali, 2008). <i>Suitable nesting habitat not within study area, rarely a cactus wren may use landscaping shrubs on a transient basis.</i>
Western beach tiger beetle	<i>Cicindela latesignata latesignata</i>	--/--/S1/--	Mudflats and beaches. <i>No potential to occur on-site, habitat lacking.</i>
monarch butterfly	<i>Danaus plexippus</i>	SSA/--/S3/--	Overwinters and roosts in wind-protected trees in close proximity to host milkweed plants (<i>Asclepius</i> sp.) and nectar food sources. Because this animal is abundant on a national basis, resource concerns are related to aggregate winter roosts. <i>While Monarchs occur in the study area, no winter aggregate areas are known to be present.</i>
EI Segundo blue butterfly	<i>Euphilotes battoides allyni</i>	FE/--/S1/Xerces-CI/RPV	Remnant coastal dune habitats, with coast buckwheat as the larval food source. <i>No potential to occur on-site, habitat and host plants absent.</i>
Mohave tui chub	<i>Gila bicolor mohavensis</i>	FE/FP/SE/S1/--	Found in lacustrine environments with deep pools and slow moving water. <i>No potential to occur on-site, habitat lacking.</i>
Palos Verdes blue butterfly	<i>Glaucopsyche lygdamus palosverdesensis</i>	FE/--/S1/RPV	Restricted to open coastal sage scrub habitats supporting preferred larval food source (milk vetch or deerweed). <i>Not expected to occur within study area; no host plants observed in visible survey area.</i>



**Table 4.3-2
Special Status Wildlife Species with the Potential for Occurrence**

Common Name	Scientific Name	Status* Fed/State Listing/State Rank/CNPS	Habitat Requirements and Potential for Occurrence
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	--/--/S3?/SSC/	Prefers coastal scrub habitat. Constructs houses with twigs usually in rock outcrops, rocky cliffs and slopes. <i>Limited potential to occur in study area along drainages, habitat generally lacking.</i>
pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	--/--/S3/SSC/	Prefers rock crevices in cliffs for roosting. Feeds on wide variety of flying insects. <i>Unlikely to roost in area as no rock crevices/cliffs present.</i>
Pacific pocket mouse	<i>Perognathus longimembris pacificus</i>	FE/S1/SSC	Coastal strand, sand dunes, ruderal vegetation on river alluvium, and open coastal sage scrub on marine terraces. <i>Not expected to be present given the altered landscape; suitable habitat generally lacking.</i>
Coastal California gnatcatcher	<i>Poliophtila californica californica</i>	FT/SSC/RPV/NCCP	Coastal and inland sage scrub primarily below 2,000 feet. <i>Suitable habitat lacking within study area; occasional transient bird may occur in landscaping shrubs, along drainages, and in residual sage scrub stands.</i>
Coast horned lizard	<i>Phrynosoma blainvillii</i>	--/--/S3/SSC/	Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects. <i>No potential to occur on-site, suitable soils lacking.</i>
EI Segundo flower-loving fly	<i>Rhaphiomidas terminatus terminatus</i>	--/--/S1/--	Confined to the EI Segundo sand dunes ecosystem and portions of the Los Angeles River sandy alluvial plain. <i>No potential to occur on-site, habitat lacking.</i>
Bank swallow	<i>Riparia riparia</i>	--/SE/S2--	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole. <i>No potential to occur on-site, habitat lacking.</i>
California brackish water snail	<i>Tryonia imitator</i>	--/--/S2/--	Inhabits coastal lagoons, estuaries and salt marshes. Found only in permanently submerged areas. <i>No potential to occur on-site, habitat lacking.</i>

Source: CDFW CNDDDB Special Animals list, July 2009 and November 2018; CNDDDB 5-mile search radius, April 2010 and November 2018

FE = Federally Endangered; FT = Federally Threatened;
FC = Federal Candidate; FP= Federally Protected, Department of Fish and Wildlife; FSC = Federal Species of Concern;
SSA = Federal Species Status Assessment
SE = State Endangered; SR = State Rare; SSC=Species of Special Concern, Department of Fish and Wildlife; Xerces Society-CI=Critically Imperiled;
NCCP = NCCP/HCP Focal Species

RPV = listed in Rancho Palos Verdes Subarea Plan as sensitive.
S1=<6 Eos (viable element occurrences) or <1,000 individuals or <2,000 acres
S2=6-20 Eos or 1,000-3,000 individuals or 2,000-10,000 acres
S3=21-80 Eos or 3,000-10,000 individuals or 10,000-50,000 acres

Palos Verdes Blue Butterfly. Palos Verdes blue butterflies are small thumbnail-sized butterflies that were federally listed as endangered by the U.S. Fish and Wildlife Service in 1980. On March 6, 2010, federally endangered Palos Verdes blue butterflies were released into eight acres of restored coastal sage scrub habitat at Deane Dana Friendship Community Regional Park and Nature Center (Friendship Park) located in San Pedro, approximately three miles southeast of the Portuguese Bend community. The Palos Verde blue had been historically recorded at Friendship Park in 1981, but not observed for several decades. Future Palos Verdes blue butterfly recovery efforts are planned to include continued rearing of butterflies in captivity for release back into the wild and additional habitat restoration and management efforts.



The existing NCCP/HCP discusses the Palos Verdes blue butterfly. Per Mattoni 1995, suitable habitat that includes the food plant *Astragalus trichopodus lonchus* and common deerweed (*Lotus scoparius*) is present within the NCCP/HCP areas to the north of the Portuguese Bend community. URS (July 2004) reported historic sightings to the west of the study area (west of Narcissa Drive) and to the northeast (northeast of Vanderlip Road), but not within the study area. The NCCP/HCP areas may be receptor sites for additional captive raised butterflies.

Within the survey area, suitable habitat for the Palos Verdes blue butterfly is generally lacking because of the long-term disturbance of the properties and management for fire prevention. None of the known host plants, either as vegetation, blooms or seed pods, were observed during the survey. Based on the above and the lack of known populations in this area over the last 30 years, areas within the project boundary and 100-foot-wide buffer are not expected to support the Palos Verdes blue butterfly.

El Segundo Blue Butterfly. The El Segundo blue butterfly is restricted to remnant coastal dune habitat in southern California. During monitoring conducted for the Draft NCCP/HCP (Dudek, 2007) it was documented along and at the base of the cliff bluffs approximately 1.8 miles west of the study area. Its host plant is *Eriogonum parvifolium* and the larvae feed only on this flower and its seeds; adults use this plant as a major nectar source. No *Eriogonum parvifolium* were observed during the 2010 and 2018 habitat assessments, and past regular maintenance of the study makes it highly unlikely that this plant is present. No El Segundo blue butterflies would be expected in this area.

Monarch butterfly. The monarch butterfly over-winters in southern California usually in tree groves or windbreaks near available water and nectar sources. The USFWS is currently conducting a Species Status Assessment of this species to determine if listing under FESA is warranted. This species commonly uses eucalyptus (*Eucalyptus* sp.), cypress (*Cupressus* sp.) and Monterey pine (*Pinus radiata*) for roosting. While the Monarch butterfly is relatively abundant throughout the North American continent, along the west coast the availability of winter roost sites where the butterflies aggregate by the thousands of individuals is considered a potential concern. The monarch butterfly's preferred food source is milkweed (*Asclepias* sp.), although adults may also feed off nectar from coyote bush (*Baccharis pilularis*) and mule fat (*Baccharis salicifolia*). Monarch butterflies are commonly found in small numbers in landscaped gardens and would be expected to occur in the study area and throughout the City of Rancho Palos Verdes.

Within the survey area suitable habitat for winter roost sites was present throughout, most centralized along the lower reach of Altamira Canyon within eucalyptus groves. Although roost sites were present, none of the preferred food source, milkweed, was observed during the survey. Further, neither the CNDDDB nor the Xerces Society (2016) report any large winter aggregations in this area.

"Coastal" Cactus Wren. Cactus wren is resident in arid and semiarid regions from southern California, southern Nevada, extreme southwestern Utah, central Arizona, central New Mexico, and central and southern Texas south to into Mexico and Baja California. The species is considered "common" over most of its range. Based on current taxonomic classifications of this species, the *California Bird Species of Special Concern* indicates that only the



San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) is considered a CDFW species of special concern (see also *Special Animals*, CDFW November 2018). However, Cooper Ecological Monitoring, Inc. (2010) has stated that this taxonomic change is not accepted by all ornithologists and the geographic isolation of the local cactus wren qualifies it as a “sensitive species.” No cactus wren territories were documented in the Portuguese Bend Reserve during the 2018 survey. However, three cactus wren territories were estimated to be within the Portuguese Bend Reserve during the 2012 surveys, the closest of which was located approximately 3,000 feet east of the project area. The project area lacks the cactus stands typically used by this species and its presence is not expected within the project area.

San Diego Desert Woodrat. This woodrat is a CDFW Species of Special Concern that occurs in scrub areas with moderate to dense canopies. San Diego desert woodrat is a small mammal whose range extends from San Luis Obispo County in the north to San Diego County in the south. Two species of woodrat, big-eared (dusky-footed) woodrat (*Neotoma macrotis*) and San Diego desert woodrat (*Neotoma lepida intermedia*) have ranges that overlap within the region. San Diego desert woodrat feeds on fruits, seeds and bark and is known to feed on cholla and buckwheat. Desert woodrats build elaborate dens with several chambers for nesting and food, as well as several entrances. Nests are usually made at the base of perennial vegetation with sticks, rocks, and other plant parts. They are often associated with large cactus patches, and within coastal sage scrub communities it is almost invariably associated with prickly pear cactus. It also is found in rocky outcroppings on hillsides in coastal scrub. Its nearest known location is within the coastal scrub community located approximately 0.5 miles to the south of the study area. Given the lack of prickly pear cactus and coastal sage scrub plants within the study area, and the proximity of residences that likely have cats which are efficient predators of this species, it is unlikely that this animal maintains a substantial population within the study area. If present within the study area, San Diego desert woodrat are most likely limited to the area along Altamira Canyon within the “Neutral Lands” category of the NCCP/HCP (see Figure 2).

f. Sensitive Communities and Critical Habitat. A search of the USFWS Critical Habitat Portal yielded one Critical Habitat designation in the project vicinity, that is for the California gnatcatcher (CAGN). The 2007 habitat mapping overlies a portion of the study area as illustrated in Figure 4.3-1, primarily in the northwest portion of the study area and the “Neutral Lands” in the southern portion. Critical habitat mapping is intended to contain those lands essential for the conservation of a species, but any such land within the mapped boundary must also contain the known physical or biological features (Primary Constituent Elements or PCEs) within the geographical area that are essential to the species conservation. For CAGN, the PCEs are 1) dynamic and successional sage scrub habitats and 2) non-sage scrub communities like chaparral, grassland, riparian areas, near to suitable sage scrub habitats. Within the project area and 100-foot-wide buffer area, neither coastal sage scrub habitat or key plant species associated with this habitat were found. Due to fire clearance requirements, it is expected that that 100-foot-wide buffer area will continue to be highly disturbed and high quality coastal sage scrub habitat preferred by the CAGN will not be allowed to establish. The maintained grasslands of portions of the project area are not considered to provide an important PCE under Item 2 above given the distance to quality coastal sage scrub habitat and the regular disturbance. It should also be noted that the designation of critical habitat does not place a regulatory burden on the private landowner; it only provides that federal agencies are to ensure that actions they fund, authorize, or carry out do not destroy or adversely modify critical habitat.



Special-Status Communities. In addition to sensitive plant species, Rincon's review of the CNDDDB (CDFW 2018) yielded one sensitive habitat within a five-mile radius of the project area; Southern Coastal Bluff Scrub. In 2010, absence of this habitat area was determined using the vegetation classification systems described by Sawyer et al.'s *A Manual of California Vegetation* (2009) and by the CDFW's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986) and surveying the project area for species associated with this sensitive habitat. In 2018, the project area was re-surveyed for species associated with this sensitive habitat.

Southern Coastal Bluff Scrub is a low, sometimes prostrate scrub and is widespread along the southern California coastline as a very narrow band, often not extending more than about 100 feet inland. Plants usually cling to nearly vertical rock faces just above the surf. Dominant plants associated with this habitat include California sagebrush (*Astemisia californica*), California buckwheat (*Eriogonum fasciculatum*), coast cholla (*Cylindropuntia prolifera*), and coast prickly pear (*Opuntia littoralis*). Dominant associated plants, vertical rock faces, and proximity to the surf which define this community type are lacking within the project area and buffer area.

Palos Verdes Nature Preserve (PVNP). The Palos Verdes Peninsula Land Conservancy (PVPLC) serves as the City's management agency for the Palos Verdes Nature Preserve. The Preserve was formed under a NCCP Subarea Plan to "maximize benefits to wildlife and vegetation communities while accommodating appropriate economic development within the City of Rancho Palos Verdes and region pursuant to the requirements of the NCCP Act and Section 10(a) of the ESA" (URS July 2004). As a primary component of the NCCP, a Preserve design was proposed to conserve regionally important habitat areas and provide habitat linkages to benefit sensitive plants and wildlife. PVPLC manages the Preserve under an operating agreement with the City. The NCCP includes include a Habitat Conservation Plan (HCP) which "provides an opportunity for species protection and habitat conservation within the context of non-Federal development and land use activities" (RPV 2018).

The Portuguese Bend and Filiorum Reserves are located to the northeast and northwest of the Portuguese Bend community, respectively (see Figure 4.3-1). The Portuguese Bend Reserve does not directly adjoin the project area, but is on the other side of Narcissa Drive and Vanderlip Drive from the project area. The Filiorum Reserve adjoins three of the lots within the project area in the northern portion of the area along Altamira Canyon, but is otherwise separated from the project area by an open space lot on the northwest and roadway on the northeast. The following further discusses these nearby reserves.

Portuguese Bend Reserve. The Portuguese Bend Reserve is a 409.8-acre area that was acquired in 2005. It consists of rolling hills, steep canyons and rock outcrops, with significant habitat and spectacular views of the Pacific Ocean and Santa Catalina Island. Located below and to the east of Del Cerro Park, it includes the areas known as the lemonade-berry parcel, eagle's nest, the badlands, the active landslide and the dirt extension of Crenshaw Boulevard. This area has numerous important trails and geologic features such as Ailor cliff and the pillow lava outcrop. Multiple sightings of the CAGN were recorded during 2018 surveys (Cooper 2018).



Filiorum Reserve. The Filiorum Reserve is a 208-acre area that was added to the previous NCCP agreement on December 31, 2009, and renamed from “Upper Filiorum” to “Filiorum Reserve” on May 15, 2012. This parcel connects the Three Sisters and Portuguese Bend Reserves and is a mix of steep hills and bowl-like, flatter areas covered in grasses and coastal sage scrub. It is known to contain a population of CAGN and host plants for the Palos Verdes Blue Butterfly.

g. Regulatory Setting.

Rancho Palos Verdes General Plan. The goal of the City of Rancho Palos Verdes’ 2018 General Plan Conservation and Open Space Element is to conserve, protect, and enhance its natural resources, beauty, and open space for the benefit and enjoyment of its residents and the residents of the entire region. All future development is to recognize the sensitivity of the natural environment and be accomplished in such a manner as to maximize the protection of it.

Rancho Palos Verdes Municipal Code. The City’s Municipal Code provides another layer of environmental protection to lands located within the city limits. Section 17.40.040 of the City’s Municipal Code provides the regulations for the Natural Overlay Control District (OC-1), which includes those areas of the General Plan within Resource Management (RM)-5 (Old Landslide Area), RM-6 (Hydrologic Factors), RM-7 (Marine Resource), RM-8 (Wildlife Habitat), RM-9 (Wildlife Habitat), and RM-10 (Natural Vegetation). Similar designations within the Coastal Specific Plan are also within this overlay district. According to the City’s General Plan Conservation and Open Space Element, Altamira Canyon is located within RM 6 – Hydrologic Factors, which is included within OC-1. Within this district it is the City’s policy to maintain and enhance land and water areas necessary for the survival of valuable land and marine-based wildlife and vegetation; and enhance watershed management, control storm drainage and erosion, and control the water quality of both urban runoff and natural water bodies within the city.

Chapter 17.41 establishes policies, regulations, and standards that reduce adverse impacts on threatened or endangered species, which could be directly created or indirectly induced by the unregulated removal of coastal sage scrub habitat and other vegetation that is occupied by threatened or endangered species, regardless of whether such removal occurs in connection with proposed and existing developments. Coastal sage scrub habitat has been designated by the United States Fish and Wildlife Service as critical habitat essential for the continued survival of, among other species, the coastal California gnatcatcher. Specifically, Chapter 17.41 establishes a regulatory process for approval of weed abatement and other activities undertaken on properties that are greater than two acres in size and contain coastal sage scrub habitat to ensure that such activity does not jeopardize the continued viability of any endangered or threatened species due to the removal of, or impact to, occupied habitat.

Neutral Lands. This category was developed under the NCCP Subarea Plan (URS July 2004) to include those open space lands that would contribute to the Palos Verdes Nature Preserve function as they cannot be developed because of extreme slopes, open space hazard zoning, or designation as homeowner’s association open space. In the 2018 update to the NCCP/HCP the Neutral Lands category remains identified as undevelopable; however,



Alternative D for preserve design was selected and neutral land is not included in any of the preserves. In some instances, these lands are not prohibited from development, but it is recognized that development constraints already exist pursuant to the City's Municipal Code. Extreme slopes have a greater than 35% grade and occur in undeveloped canyons, such as Altamira Canyon. Open space hazard lands have unstable geologic conditions or other physical constraints requiring a detailed geotechnical investigation prior to removal from the open space hazard designation. Altamira Canyon in the southern portion of the study area is within the Neutral Lands category (see Figure 4.3-1) as it is within the RM-6 designation and controlled by the OC-1 regulations as discussed above.

Jurisdictional Drainages and Wetlands. Disturbed riparian habitat and drainage features located within the project boundary and 100-foot-wide buffer may contain waters and/or wetlands that are subject to the jurisdiction of the CDFW, the U.S. Army Corps of Engineers (USACE) and/or the Regional Water Quality Control Board (RWQCB). Altamira Canyon is an ephemeral drainage channel that originates at Crest Road and ends at the Pacific Ocean, trending northwest to southeast and bisecting the study area. The northern reach of the drainage within the study area bisects landscaped private property and non-native California annual grassland habitat within undeveloped/underdeveloped lots. The drainage crosses under Narcissa Drive via a storm drain and continues southeast through a steep-banked channel categorized as "Neutral Lands" within the NCCP/HCP. Vegetation along this lower drainage feature is dominated by exotic woodland habitat. The drainage channel has hydrological features such as an ordinary high water mark, and bed, bank, and channel characteristics, but lacks any native riparian habitat. The riparian habitat associated with the drainage throughout the project area is dominated by landscape shrubs and trees, primarily pepper trees, pines and eucalyptus, with an understory of non-native annuals and herbaceous perennials, exotic shrubs, and coastal sage scrub patches.

Based upon the 2010 and 2018 reconnaissance surveys, the drainage feature located within the project boundary may be subject to USACE, Los Angeles RWQCB and/or CDFW jurisdiction. The regulatory agencies make the final jurisdictional determination.

4.3.2 Impact Analysis

a. Methodology and Significance Thresholds. This impact analysis is based on the following: a review of previous biological studies available for the general area; a 2010 field survey of the general study area (which did not allow for detailed investigation of each lot); a 2018 reconnaissance survey to document changes in project area conditions; available literature regarding the existing biological resources within the project area; and, aerial photography.

CEQA, Chapter 1, Section 21001 (c) states that it is the policy of the State of California to "prevent the elimination of fish and wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities." Environmental impacts relative to biological resources may be assessed using impact significance criteria encompassing CEQA guidelines and federal, state and local plans, regulations, and ordinances.



The State CEQA Guidelines Appendix G provides the following general statements to determine if significant impacts to biological resources could occur if a project action would:

- a) *Have a substantial adverse effect (i.e. significantly reduce species population, reduce species habitat, restrict reproductive capacity), either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, regulations, or by CDFW or USFWS;*
- b) *Have a substantial adverse effect (i.e. direct/indirect reduction) on any riparian habitat or other sensitive natural community identified in local or regional plans, policies regulations, or by the CDFW or USFWS;*
- c) *Have a substantial adverse effect (i.e. direct/indirect reduction) on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, or hydrological interruption, or other means;*
- d) *Interfere substantially (i.e. direct/indirect reduction) with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*
- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and*
- f) *Conflict with the provisions of an adopted Habitat Preservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

b. Project Impacts and Mitigation Measures.

Impact BIO-1 Potential development that would be facilitated by the proposed ordinance revisions would not significantly affect special status species due to the lack of suitable habitat, level and frequency of existing human disturbance in the project area, and existing regulations under the Natural Overlay Control District (OC-1) that would restrict construction to areas not likely occupied by the San Diego desert woodrat. While the increased human presence is considered adverse, it would not be substantially different or increased over existing conditions, and no significant effect is anticipated. Therefore, impacts to Special Status Species would be Class III, less than significant.

As discussed above, special status plant species are not expected to occur on a regular basis on the 31 lots or the adjacent maintained fuel management buffer because of past alteration of vegetation and the general lack of suitable habitat. In addition, the continued fuel management practices with or without the proposed project would virtually eliminate the ability of any sensitive plants to re-establish within these areas.

Most of the special status animals potentially in the area are not expected to be present on the potential development sites because of the lack of habitat. Mobile special status wildlife, such as coastal California gnatcatcher, could rarely occur within the landscaping shrubs present in the study area on a transitory basis during dispersal, but are not likely to be resident or present for long periods of time because of the lack of suitable foraging or nesting habitat. Given the level and frequency of human disturbance on-site and the lack of suitable coastal sage scrub habitat,



future development of the individual lots is not expected to have a direct effect on coastal California gnatcatcher individuals. As noted in Table 4.3-2, no suitable habitat for listed butterflies is present within the study area.

San Diego desert woodrat is the only other special status animal anticipated to potentially occur within the site, possibly within the two lots in the south part of the study area along Altamira Canyon and within the RM-6 designated area. The drainage is steeply incised, with non-native ruderal areas located on the potentially developable upland areas. If developed, construction would not be expected to directly impact any woodrats that may be present as existing regulations under OC-1 would restrict construction to areas not likely occupied by woodrats.

Additional residences in the area would introduce a higher density of human disturbances, including light, noise, and domestic animals, into the vicinity of this special status species, as well as others. However, these elements are already present given the existing residential land uses within the study area and to the north and south. A potential problematic effect, the domestic cat, is already present. Available literature on the size of domestic cat home ranges and the extent to which they enter into adjacent natural areas varies considerably, with estimated home ranges in the 0.5–5-acre range and the ability to range 250–600 feet from their core residence. It should be noted that feral cats, as compared to domestic cats, can have core home range sizes that exceed 400 acres and have an average movement distance of 5 miles (Guttilla and Stapp, 2010). Any woodrats that may be present at the site are already subject to predation pressures from these human associated animals. However, while small mammals are the most likely prey of domestic cats ranging from residences, their impact on small mammal populations in adjacent reserves is minor. This is in substantial difference to the effect of feral and farm-based rural cats. Therefore, while the increased human presence is considered adverse, it is not substantially different than existing conditions, and no significant effect is anticipated. Impacts to special status species would be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts to special status species would be less than significant without mitigation.

Impact BIO-2 Development of some of the undeveloped lots in Zone 2 has the potential to significantly impact existing or regrown Coastal Sage Scrub habitat, either through the direct removal of habitat during construction or as a result of Fire Department-mandated fuel modification on and/or off-site (i.e., in the Reserves) after construction of new residences. In that event, effects to this sensitive plant community would be Class II, less than significant with mitigation incorporated.

The project area does not contain any sensitive plant communities because previously mapped coastal sage scrub areas have been reduced to isolated stands. No riparian habitat is associated with the primary drainage, with much of the cover in this area comprised of non-native woodlands. The area adjacent to the Filiorum Reserve has already been cleared sufficiently to maintain adequate distance between the undeveloped lots and sensitive coastal sage scrub vegetation. Therefore, based on current conditions, the proposed project would not have a



substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS. However, over time and depending on future fuel management activities, coastal sage scrub vegetation could become re-established in various areas within Zone 2 or in adjacent properties. As shown in Figure 4.3-1, some isolated patches of former coastal sage scrub (CSS) habitat may still be present within Altamira Canyon, which traverses several developed and undeveloped lots in Zone 2. In addition, several of the undeveloped lots in Zone 2 abut the City-owned Portuguese Bend Reserve, though fuel management of this Reserve already occurs and would continue under the NCCP/HCP. Nonetheless, it is possible that the development of some of the undeveloped lots in Zone 2 might have significant impacts upon existing or regrowth CSS habitat, either through the direct removal of habitat during construction or as a result of Fire Department-mandated fuel modification on- and/or off-site (i.e., in the Reserve) after construction of new residences is complete. Impacts to all habitats will be tracked as part of the City's overall habitat tracking efforts in compliance with Section 9.3.1 of the NCCP/HCP. In that event, effects to this sensitive plant community would be considered potentially significant.

Mitigation Measures. The following mitigation measure is recommended to reduce impacts to possible stands of CSS vegetation and to maintain consistency with the NCCP/HCP and local ordinances.

BIO-2 **Habitat Mitigation.** For lots identified as containing sensitive habitat on the City's most-recent vegetation maps and/or that abut any portion of the current or proposed future boundary of the Palos Verdes Nature Preserve, each applicant shall be required to prepare a biological survey as part of a complete application for the development of the lot. Said survey shall identify the presence or absence of sensitive plant and animal species identified in the City's adopted NCCP/HCP on the subject property, and shall quantify the direct and indirect impacts of construction of the residence upon such species, including off-site habitat impacts as a result of Fire Department-mandated fuel modification. The applicant and/or any successors in interest to the subject property shall be required to mitigate such habitat loss through the payment of a mitigation fee to the City's Habitat Restoration Fund in compliance with the NCCP/HCP Section 8.2.1.1 prior to issuance of any grading or building permit.

Significance After Mitigation. Implementation of the above mitigation measure would reduce impacts to a less than significant level through payment of mitigation fees to a fund that would preserve sensitive habitats within the PVNP.

Impact BIO-3 **Construction activities on five lots adjacent to Altamira Canyon could potentially affect jurisdictional drainage areas. This impact would be Class II, less than significant with mitigation incorporated.**

Altamira Canyon divides the study area into east and west portions. This drainage was surveyed during the 2010 and 2018 field reconnaissance surveys from available access points,



and within those limited areas it did not contain any riparian or wetland habitat. Review of readily available aerial photographs does not indicate the presence of extensive riparian habitat or possible wetland areas. However, the drainage would be subject to the jurisdiction of the CDFW under Section 1600 et. seq. of the Fish and Game Code and possibly contains “waters of the US” subject to the jurisdictional control of the USACE. This drainage passes through or is adjacent to five lots within which construction activities could potentially affect jurisdictional areas. The extent to which jurisdictional areas may be altered is unknown as no specific building plans are under consideration. At the time individual lot construction is proposed, the potential for intrusion into jurisdictional areas will need to be assessed and the actual amount of possible fill or other disturbance within jurisdictional drainages determined. Regulatory policies by the jurisdictional agencies require mitigation for permanent loss of riparian habitat, wetlands, and waters of the US, and may also require mitigation for temporary losses. Impacts to all habitats will be tracked as part of the City’s overall habitat tracking efforts in compliance with Section 9.3.1 of the NCCP/HCP.

An NOP response suggests that debris and silt from the project area are affecting intertidal species. As discussed in detail in Section 4.8, *Hydrology and Water Quality*, new development projects on vacant lots abutting the Preserve approved by the City would include conditions, as appropriate, to reduce impacts related to surface runoff. As a co-permittee of the RWQCB National Pollution Discharge Elimination System (NPDES) Permit, the City is required to adopt a Standard Urban Stormwater Mitigation Plan (SUSMP). The majority of new development projects and significant redevelopment projects must meet SUSMP requirements to reduce pollution and runoff flows and the City’s SUSMP includes a list of recommended source control and structural treatment Best Management Practices (BMPs). Nevertheless, because development of these lots may affect jurisdictional areas, this impact would be potentially significant.

Mitigation Measures. The following mitigation measures are recommended to provide for habitat restoration and ensure that regulatory permits have been appropriately obtained prior to work within jurisdictional areas.

BIO-3(a) Agency Coordination. The City shall review each application for construction and determine if proposed development is within the drainage channel in Altamira Canyon. If so, the applicant shall be required to obtain permits, agreements, and/or water quality certifications or correspondence indicating that none are necessary from applicable state and federal agencies regarding compliance with state and federal laws governing work within jurisdictional waters. Such agencies would include the California Department of Fish and Wildlife, the United States Army Corps of Engineers, and the Los Angeles Regional Water Quality Control Board. The applicant shall provide such permits and/or agreements to the City prior to issuance of any grading or building permit.

BIO-3(b) Habitat Restoration. In the event that an application for construction would result in the loss of riparian or wetland vegetation, the applicant shall restore such habitat at a minimum ratio of 2:1 for



temporary loss and 3:1 for permanent loss. Such restoration can occur either on-site or in disturbed areas of the Palos Verdes Nature Preserve as determined and approved by the City.

Significance After Mitigation. Implementation of the above mitigation measures would reduce impacts to a less than significant level.

Impact BIO-4 **No significant impacts are anticipated with respect to night lighting and noise given the existing residential use of the area. Although the regionally important habitat area (RIHA) is protected by the policies of the Natural Overlay Control District (OC-1), tree removal associated with development facilitated by the proposed project could affect birds including the California gnatcatcher. Impacts to nesting birds as a result of tree removal would be Class II, less than significant with mitigation incorporated.**

Future development of the lots that would be allowed under the proposed ordinance revisions is likely to include landscape and other improvements that may remove existing trees within the various lots. While these trees are mostly non-native pepper, eucalyptus, pine, acacia, and olive trees, they may nonetheless support birds that are protected by the Migratory Bird Treaty Act (MBTA) and the Fish and Game Code of California (3503, 3503.5, 3511, 3513 and 3800). These regulations protect almost all native nesting birds, not just special status birds. A significant impact could occur as a result of harm to the reproductive success of species protected by the MBTA and the Fish and Game Code of California if any bird species are nesting in the existing trees at the time of tree removal. The impact to nesting birds as a result of tree removal would be potentially significant unless mitigation is incorporated.

Exterior night lighting and the noise associated with residential uses could potentially disrupt normal behavior and breeding for some wildlife species. However, such noise and light effects already exist in the area, and the increased density of residences would not be expected to substantially decrease the populations of common wildlife in the area. The introduction of additional landscape vegetation to these sites would potentially increase the local population levels of urban tolerant wildlife, primarily bird species such as Anna's hummingbird (*Calypete anna*), northern mockingbird (*Mimus polyglottos*), and California towhee (*Melozone crissalis*). No significant impact is anticipated with respect to night lighting and noise given the existing residential use of the area. Please see Impact BIO-6 for a discussion of consistency of construction noise and activity with respect to the Habitat Impact Avoidance and Minimization Measures for Covered Projects and Activities in Section 5.5 of the NCCP/HCP.

The southern portion of Altamira Canyon within the project boundary that is designated RM-6 was also identified by the NCCP/HCP (RPV 2018) as a regionally important habitat area (RIHA) as it was mapped as containing coastal sage scrub along its steep slopes. A review of readily available photographs indicates that the vegetation in this area has apparently changed with the intrusion of additional non-native trees and other elements, and the coastal scrub vegetation appears reduced. The steep canyon slope is not optimal for California gnatcatcher, which prefers slopes of less than 40%, and given the lack of suitable vegetation further north within the canyon, it is unlikely that it is used as a significant transit route that provides



connectivity for the local California gnatcatcher population. That function is largely served by the adjacent preserve areas (for instance Filiorum and Portuguese Bend Reserves). As this area is protected by the policies of the Natural Overlay Control District (OC-1), the proposed project would not be expected to cause a significant effect on possible California gnatcatcher movement.

Mitigation Measures. The following measure shall be implemented to reduce impacts related to nesting birds to a less than significant level.

BIO-4 Nesting Bird Surveys and Avoidance. The City shall require that tree pruning and removal be conducted outside of the bird breeding season (generally ~~February 1~~ January 31 through ~~August 31~~ September 30). If vegetation clearing (including tree pruning and removal) or other project construction is to be initiated during the bird breeding season, pre-construction nesting bird surveys shall be conducted by a City-approved biologist. To avoid the destruction of active nests and to protect the reproductive success of birds protected by MBTA and the Fish and Game Code of California, the nesting bird surveys shall be performed twice per week during the three weeks prior to the scheduled felling of the trees on the site. If any active non-raptor bird nests are found, the tree(s) or vegetation shall not be cut down; a suitable buffer area (varying from ~~25-100~~-300 feet), depending on the particular species found, shall be established around the nest and avoided until the nest becomes inactive (vacated). If any active raptor bird nests are found, a suitable buffer area (~~typically 250~~ at least 500 feet from the nest) depending upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site, shall be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within this buffer until the City-approved biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Nesting birds surveys are not required for construction activities occurring from ~~September~~ October 1 to January ~~30~~ 31.

Significance After Mitigation. Implementation of the above mitigation measure would reduce impacts to nesting birds to a less than significant level by identifying and, as necessary, avoiding active bird nests.

Impact BIO-5 The proposed ordinance revisions would not conflict with local policies or ordinances protecting biological resources. Impacts would be Class III, less than significant.

The City of Rancho Palos Verdes does not have an adopted tree preservation ordinance. However, the City has established the Natural Overlay Control District (OC-1) to “Maintain and



enhance land and water areas necessary for the survival of valuable land and marine-based wildlife and vegetation”, and to “Enhance watershed management, control storm drainage and erosion, and control the water quality of both urban runoff and natural water bodies within the City” (Rancho Palos Verdes Municipal Code Section 17.40.040). As noted above, OC-1 has specific performance criteria and regulations that limit the potential for development within areas of important resources and any development. Any development that would result from the proposed project would need to conform to OC-1. While the project would provide for increased residential development within the Portuguese Bend community, the consistency of individual lot developments will need to be determined at such time that a lot is proposed for development. As such, the proposed project would conform to this local policy and indirect impacts would be less than significant.

The City has a Coastal Sage Scrub (CCS) Conservation and Management Ordinance, which is codified as Chapter 17.41 of the Rancho Palos Verdes Municipal Code. However, this ordinance only applies to parcels over two (2) acres in size that contain CSS habitat. All lots in Zone 2 over two acres in size have been developed. As such, any conflicts of the proposed project with local policies or ordinances protecting biological resources are expected to be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant.

Impact BIO-6 Potential development under the proposed ordinance revisions would have the potential to conflict with guidelines of the NCCP/HCP. Therefore, impacts would be Class II, less than significant with mitigation incorporated.

As discussed above in the *Regulatory Setting*, the Rancho Palos Verdes City Council conceptually approved the Citywide NCCP/HCP Subarea Plan in 2004 and again in 2018. The plan identifies Biological Resource Areas and establishes the Palos Verdes Nature Preserve primarily for habitat preservation purposes. The Rancho Palos Verdes NCCP/HCP provides for conservation and protection of the habitat of the Palos Verdes blue butterfly and other special-status species, while permitting impacts from development to potential habitat for the covered species, including coastal sage scrub habitat. The City is currently working with the Wildlife Agencies to update, finalize, and authorize the NCCP/HCP. Several issues of compatibility of the Zone 2 proposed development with the NCCP/HCP are addressed below.

Fuel Modification. As stated in the NCCP/HCP (RPV 2018), the existing distribution of native vegetation within the NCCP/HCP is highly fragmented and edge-affected by existing development. Fuel management activities outside of the Zone 2 property lines have already substantially altered the biological communities adjacent to the residential lots that could potentially be developed. The central and southeastern portions of the study area contain the majority of the undeveloped/ underdeveloped lots, and these lot boundaries are more than 200 feet from the boundary of the Filiorum Reserve. An exception is that one lot along Altamira Canyon adjoins the Filiorum Reserve property boundary along an approximate 450-foot linear boundary. The field reconnaissance indicated that this portion of the Reserve has already been subjected to fuel management activities that have reduced the habitat to a non-native grassland. Since no fuel management activities beyond that which have already occurred are expected for



the individual lots, no additional impacts to the Reserve area are expected. It should be noted that the Portuguese Bend Reserve has been and will continue to be subjected to fuel management activities along the north edge of Narcissa Drive. The L.A. County Fire Department and L.A. County Department of Agricultural Commissioner have reviewed the existing private development that abuts the Preserve and have determined the amount of brush clearance needed within the Preserve to provide the code-required fuel modification zone for the protection of existing structures outside the Preserve. Development of residential structures in this eastern portion of the project area will not alter that existing practice.

Section 5.3.3 of the City-approved NCCP/HCP addresses Fuel Modification. In situations where fuel modification must occur in the Preserve, impacts are already addressed by the City dedicating 1,402.4 acres to the Preserve. For the Private Projects to be covered under the NCCP/HCP, vegetation needed to be cleared for fuel modification shall be offset by the project applicant paying a Mitigation Fee into the City's Habitat Restoration Fund using a 2:1 mitigation ratio for impacted CSS, a 0.5:1 mitigation ratio for impacted non-native grassland, and a 3:1 mitigation ratio for impacted native grassland (as described in Section 2.2.1 of the Plan) occurring in areas greater than 0.3 acre. Removal of cacti and other succulents within any required fuel clearing areas shall be avoided/minimized to preserve habitat for the coastal cactus wren and other Covered Species.

Development Adjacent Reserves. Site specific project design issues are discussed in Section 5.7 of the current NCCP/HCP. Issues associated with development relate to access and staging areas, fuel modification zones (discussed above), introduction of non-native species, night lighting, stormwater and urban runoff, increased noise levels, and access into Reserve lands. Each site to be developed in the proposed project (Zone 2) will need to be required to stay outside of the Reserve areas. Based on the location of the potentially developable lots and Reserve lands, no grading, access or staging areas are expected to affect Reserve lands. Nonetheless, construction activities on those lots that abut the Reserves could have an impact on wildlife and vegetation; therefore, the implementation of the Restrictions and Requirements in Section 5.7 are required to maintain consistency with the NCCP/HCP.

A Predator Control Plan (PCP) was developed as part of the *2006 Initial Management and Monitoring Report* (Dudek, 2007) and updated in 2012. It noted that brown-headed cowbirds were observed in the Portuguese Bend Reserve area and another reserve further to the southeast. The PCP recommended that a cowbird trapping program be implemented within the Portuguese Bend Reserve during the second year of the plan to reduce the potential for cowbirds to parasitize nests of native birds. One trap would be sufficient to cover this area. The status of this cowbird trapping program is unknown.

Brown-headed cowbirds are typically associated with land uses that have abundant grass seed, such as equestrian facilities, barns with livestock, and golf courses. Many of the residential lots currently within the study area have horses and other livestock, and an equestrian facility is located in the west portion of the project area. The proposed project would not alter the ability of lot owners to house livestock on their lots, and would not change the extent to which such facilities could occur within the site under existing conditions. If the owners of the lots choose to have large animals, additional waste grain food sources for the brown-headed cowbird could develop, but the potential for cowbird to occur is already present. Per the Palos Verdes



Peninsula Land Conservancy (see Comment Letter No. 7), recent surveys have not detected cowbirds. Nonetheless, cowbird management is likely to be an ongoing management issue for the Palos Verdes Nature Preserve because of existing land uses' ability to support cowbird populations. In the event that cowbirds appear in the area in the future, the single trap recommended in the 2007 PCP for the Reserve to control populations in the area of known coastal California gnatcatcher nesting is anticipated to be sufficient.

As previously stated, buildout of the residential lots could increase the number of domestic animals in the local area that could affect local wildlife. The PCP indicates that the extent of damage to NCCP/HCP focus species from feral animals is currently unknown, with additional data to be gathered to determine if a feral animal trapping program is necessary (Dudek 2007). Based on the study conducted by Kays and DeWan (2004), 80% of observed domestic cat hunts occurred in a garden/yard or within the first 33 feet of the adjacent forest preserve. Radio-tracked domestic cats rarely entered the forest preserve during their study, with scent station recordings indicating that the domestic cats rarely ventured more than 130 feet into the preserve. A caveat of this finding was that the preserve was sufficiently large to sustain predators known to kill cats (coyotes and fishers), and these were domestic cats. Feral cats are known to range more widely into natural habitats, especially in the absence of such predators. Both the Filiorum and Portuguese Bend Reserves adjoin residential land uses on their northern sides, and the project area already contains residences that support domestic cats. The possible increase in the number of residences as proposed by the project is not likely to cause a substantial increase in the number of domestic animal problems within these Reserves given the existing conditions. The NCCP/HCP Section 6.9.2.5 outlines appropriate measures taken from the 2012 PCP to comply with the Preserve Management requirement.

As discussed under Impact BIO-4 above, increased exterior night lighting and the noise associated with residential uses could potentially disrupt normal behavior and breeding for some wildlife species. However, such noise and light effects already exist in the area, and the increased density of residences would not be expected to substantially decrease the populations of common wildlife in the area. In addition, Section 17.56.030 of the City's Municipal Code specifically restricts exterior lighting in residential zones (such as the proposed project), generally that "no outdoor lighting shall be permitted where the light source is directed toward or results in direct illumination of a parcel of property or properties other than that upon which such light source is physically located." No substantial conflict with the Reserves related to noise and lighting effects are anticipated.

Conformance with stormwater and urban runoff with the Natural Overlay Control District (OC-1) is a standard requirement of the City's planning process and approvals on the individual lots at such time that they are proposed for development would maintain consistency with the NCCP/HCP. The majority of projects must meet Standard Urban Stormwater Mitigation Plan (SUSMP) requirements to reduce pollution and runoff flows. The City's SUSMP includes a list of recommended source control and structural treatment Best Management Practices (BMPs).

Section 9.2.4 of the City-adopted NCCP/HCP provides for locating any new fences within Reserves so as not to impede wildlife movement, and also recommends that signage be established for access control and education at the periphery of the Reserves. As noted above, the proposed Zone 2 development does not directly adjoin Reserve land, except for three lots



along Altamira Canyon that adjoin the Filiorum Reserve property boundary along an approximate 450-foot linear boundary. As part of the review process for these lots at such time that they are proposed for development, they would be reviewed for compliance with access features and fencing, including controls on access into the Reserve lands. Therefore, the project is considered to conform to the NCCP/HCP requirements.

Habitat Protection. The Rancho Palos Verdes Coastal Sage Scrub Conservation Ordinance (Section 17.41 of the Municipal Code) was enacted to specifically preserve lands that contain coastal sage scrub habitat and to implement resource protection per Section 6.3.3 of the City -adopted NCCP/HCP (2018). Compliance with this ordinance would be required for the individual lots at such time that they are proposed for development. It is noted that very little vegetation within Zone 2 can be described as CSS given past and current fuel modification practices. Impacts to all habitats will be tracked as part of the City's overall habitat tracking efforts in compliance with Section 9.3.1 of the NCCP/HCP. Therefore, the proposed project is considered to be in conformance with the habitat protection features of the NCCP/HCP.

Existing City ordinances, the standard City permit approval process, the 2018 NCCP/HCP, and future adoption of an Implementing Agreement for the NCCP/HCP would serve to minimize the potential for conflicts of future proposed development within the Zone 2 area from conflicting with the Draft NCCP/HCP. Therefore, this effect is considered to be less than significant under CEQA regulations.

Mitigation Measures. The following applicable measures are recommended to enhance the value of the adjacent Reserves, to limit private access into Reserve lands, and to maintain consistency with the requirement that no fuel management for new development be allowed within the Reserves.

- BIO-6(a) Structure Location.** To avoid the need for continued fuel management within the Filiorum Reserve, the City shall require that all structures for those lots abutting the Palos Verdes Nature Preserve property boundary are located at least 100 feet from that boundary.
- BIO-6(b) Perimeter Fences.** As part of approvals for development on the individual subject lots, the City shall require that lots adjoining the Palos Verdes Nature Preserve are fenced sufficiently to prevent the ready egress of domestic animals into the Preserve. In addition, no gates or other means of ingress into the Preserve shall be permitted.
- BIO-6(c) Construction Best Management Practices.** The following measures shall be required for those lots that abut the Palos Verdes Nature Preserve lands as part of construction monitoring for the site:
 - *Contractors shall be educated regarding the off-site Preserve and the need to keep equipment and personnel on the construction site prior to the initiation of construction.*
 - *Temporary construction fencing shall be placed at the planned limits of disturbance adjacent to the Preserve.*



- *Construction should be scheduled to avoid the bird nesting season (see Mitigation Measure BIO-4 above).*
- *Construction grading adjacent to drainages shall be scheduled for the dry season whenever feasible.*

BIO-6(d) Construction Staging and Stockpiling Areas. Grading and building plans submitted for City review and approval for those lots abutting the Palos Verdes Nature Preserve shall identify areas for construction staging, fueling and stockpiling if needed. These areas shall be located as far as practical from the Palos Verdes Nature Preserve and not closer than 50 feet from the Preserve boundary.

BIO-6(e) Landscaping. For those properties adjacent to the Palos Verdes Nature Preserve, to prevent the spread of non-native and invasive plant species, landscaping shall avoid those species listed on the California Invasive Plant Council's (Cal-IPC) Invasive Plant Inventory. In addition, irrigation shall be designed and maintained to avoid overspray or runoff into the Preserve (NCCP/HCP Section 5.7.4).

Significance After Mitigation. Implementation of the above mitigation measures would reduce impacts to the Reserves to a less than significant level by limiting construction and operational impacts to Reserve lands contributing to the goals of the NCCP.

c. Cumulative Impacts. The following were considered in the assessment of cumulative impacts to biological resources:

- *The cumulative contribution of other approved and proposed projects to fragmentation of open space in the project vicinity;*
- *The loss of sensitive habitats and species;*
- *Contribution of the project to urban expansion into natural areas; and*
- *Isolation of open space within the vicinity by the proposed project and future projects.*

Cumulative development in and around the City, as listed in Table 3-1 in Section 3.0, *Environmental Setting*, would continue to disturb areas with the potential for sensitive biological resources. Each development proposal is reviewed by the City and undergoes environmental review when it is deemed appropriate. Significant impacts to biological resources are minimized through this development review process, which requires mitigation to reduce significant impacts to the greatest extent feasible and below significance thresholds in most cases. The biological impacts associated with the proposed project have been mitigated to a less than significant level. The impacts of the proposed project would be localized in nature and would not substantially contribute to any cumulative impacts to regional biological resources. It should also be noted that the NCCP/HCP is a comprehensive, long-term habitat conservation plan. The NCCP/HCP addresses the potential impacts of urban growth, natural habitat loss and species endangerment, and its implementation is designed to mitigate for the potential loss of sensitive species and their habitat due to the direct, indirect, and cumulative impacts of development of both private and public lands within the planning area.



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