5.3 BIOLOGICAL RESOURCES

The analysis in this section is based in part on the following technical report(s):

- *Biological Resources Technical Report for the Solana Torrance Project, City of Torrance, California*, Dudek, June 2017

A complete copy of the Biological Resources Technical Report (biological report or study) is included in the technical appendices to this DEIR (Appendix C).

5.3.1 Environmental Setting

5.3.1.1 APPLICABLE PLANS AND REGULATIONS

Federal, state, and local laws, regulations, plans, or guidelines that are related to protection and preservation of biological resources and applicable to the proposed project are summarized below.

Federal and State Regulations

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, protects and conserves any species of plant or animal that is endangered or threatened with extinction, as well as the habitats where these species are found. "Take" of endangered species is prohibited under Section 9 of the FESA. "Take" means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Section 7 of the FESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on proposed federal actions that may affect any endangered, threatened, or proposed (for listing) species or critical habitat that may support the species. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened." This provides guidance for planners/managers and biologists by indicating locations of suitable habitat and where preservation of a particular species has high priority. Section 10 of the FESA provides the regulatory mechanism for incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits to minimize impacts to the species and formulate viable mitigation measures.

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act of 1918 (MBTA) affirms and implements the United States' commitment to four international conventions—with Great Britain, Japan, Mexico, and Russia—to protect shared migratory bird resources. The MBTA governs the take, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these items, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the MBTA.

Clean Water Act, Section 404

The United States Army Corps of Engineers (Corps) regulates discharge of dredged or fill material into "waters of the United States."[1] Any filling or dredging within waters of the United States requires a permit, which entails assessment of potential adverse impacts to Corps wetlands and jurisdictional waters and any mitigation measures that the Corps requires. Section 7 consultation with USFWS may be required for impacts to a federally listed species. If cultural resources may be present, Section 106 review may also be required. When a Section 404 permit is required, a Section 401 Water Quality Certification is also required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act, Section 401and 402

Section 401(a)(1) of the Clean Water Act (CWA) specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency with a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include Corps Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the Environmental Protection Agency (EPA) under Section 402 of the CWA. NPDES permits are issued by the applicable RWQCB. The City of Torrance is in the jurisdiction of the Los Angeles RWQCB (Region 8).

California Fish and Game Code, Section 1600

Section 1600 of the California Fish and Game Code requires a project proponent to notify the California Department of Fish and Wildlife (CDFW) of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. CDFW may review and place conditions on the project, as part of a Streambed Alteration Agreement, that address potentially significant adverse impacts within CDFW's jurisdictional limits.

California Fish and Game Code, Sections 3503 et seq.

California Fish and Game Code Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird, except as otherwise provided by this code or any pursuant regulation.

Section 3503.5. prohibits the take, possession, or destruction of any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or the nest or eggs of any such bird except as otherwise provided by this code or any pursuant regulation.

1 "Waters of the United States," as applied to the jurisdictional limits of the Corps under the Clean Water Act, includes all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the tide; all interstate waters, including interstate wetlands; and all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds whose use, degradation, or destruction could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes "navigable waters," which is defined at Section 502(7) of the act as "waters of the United States, including the territorial seas."

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or memorandum of understanding. In addition, some sensitive mammals and birds are protected by the state as "fully protected species." California "species of special concern" are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's California Natural Diversity Database, which maintains a record of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biological resources assessments.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900 et seq.) prohibits importation of rare and endangered plants into California, "take" of rare and endangered plants, and sale of rare and endangered plants. CESA defers to the Act, which ensures that state-listed plant species are protected when state agencies are involved in projects subject to California Environmental Quality Act (CEQA). In this case, plants listed as rare under the California Native Plant Protection Act are not protected under CESA; however, impacts to endangered, rare, or threatened species, including plants, are evaluated under CEQA.

Existing Conservation Plans and Areas

Coastal California Gnatcatcher Critical Habitat

Critical habitat is a specific geographic area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery. Federal agencies are required to consult with USFWS on actions they carry out, fund, or authorize to ensure that their actions will not destroy or adversely modify critical habitat.

The coastal California gnatcatcher (*Polioptila californica californica*) is federally listed as threatened and as a California species of special concern that typically appears in or near coastal sage scrub habitat. The species was listed as threatened in 1993. Final designation of critical habitat for the gnatcatcher was issued in October 2000 (Department of the Interior 2000). About 513,560 acres in Los Angeles, Orange, San Diego, San Bernardino, and Riverside counties are designated critical habitat for the species. Portions of the City are in Critical Habitat Unit 8 (Palos Verdes Peninsula subregion), which covers roughly 4,462 acres in the Palos Verdes Hills in southwest Los Angeles County. The proposed project site, including the development area, is in the designated critical habitat area. For the purpose of this DEIR, the biological resources technical report surveyed

the project site and a 500-foot buffer (together known as the study area) to evaluate the presence and potential for special-status biological resources to occur within the study area (see Figure 5.3-1, *Vegetation Communities and Land Covers Map*).

5.3.1.2 PLANT COMMUNITIES/HABITAT

Vegetation Communities and Land Covers

The biological report for the project site identified five vegetation communities and three nonnative land covers. Vegetation communities and land covers are described below and mapped on Figure 5.3-1.

Toyon Chaparral

In the toyon chaparral alliance, toyon (*Heteromeles arbutifolia*) either dominates or is co-dominant with other coastal sage or chaparral shrubs. The toyon chaparral within the project site is located in a very steep section of the north-facing slope within the northern portion of the site. This vegetation community is dominated by toyon, but is also accompanied by coastal sagebrush (*Artemisia californica*), ripgut brome (*Bromus diandrus*), and Sydney golden wattle (*Acacia longifolia*). The toyon chaparral alliance is considered a sensitive vegetation community in California; globally the alliance is widespread, abundant, and secure.

California Coastal Sagebrush

The California Coastal Sagebrush alliance occurs along the central and south coast of California, as well as on the Channel Islands. This alliance occurs between sea level and 3,937 feet. This community often forms on steep, north-facing slopes and, rarely, flooded low-gradient deposits along streams in shallow alluvial or colluvial-derived soils. California coastal sagebrush scrub is located on the very steep, north-facing slopes of the study area, southwest of Slope 3. This vegetation community is dominated by coastal sagebrush, but is also accompanied by California laurel (*Umbellularia californica*), ripgut brome (*Bromus diandrus*), and tree tobacco (*Nicotiana glauca*).

Disturbed California Coastal Sagebrush

On-site, the disturbed form of California Coastal Sagebrush alliance occurs in the northern portion of the survey area, to the northwest of the mapped California coastal sagebrush alliance. This plant community is dominated by Uruguayan pampas grass (*Cortaderia selloana*) and bare ground with coastal sagebrush scattered throughout the area. Where the cover of California coastal sagebrush association species was 20 to 30 percent, these areas were mapped as the disturbed form. Disturbed California coastal sagebrush alliance on-site was mapped within extremely steep portions of the proposed project development area.

Figure 5.3-1 - Vegetation Communities and Land Covers Map

5. Environmental Analysis

0 400
Scale (Miles)

Source: Dudek, 2017

5. Environmental Analysis
BIOLOGICAL RESOURCES

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Upland Mustards Seminatural Stands

Upland Mustards Seminatural Stands consist of herbaceous vegetation dominated by various nonnative mustard, mostly annual and biennial species, including black mustard *(Brassica nigra),* common mustard *(B. rapa),* Saharan mustard *(B. tournefortii),* shortpod mustard *(Hirschfeldia incana),* Dyer's woad *(Isatis tinctorial),* or wild radish (*Raphanus sativus)*. Most of these species are invasive exotics. Mustards encompass a large portion of the landscape. Multiple mustard species occur within the survey area, including *Brassica nigra, Hirschfeldia incana*, and *Raphanus sativus*. Upland mustards seminatural strands vegetation community is located throughout most of the study area's open landscape and is indicative of the site's disturbance history.

California Annual (Nonnative) Grassland

California annual grassland (also referred to as non-native grassland in the biological resources report) is characterized by a mixture of weedy, introduced annuals, primarily grasses. California annual grassland typically includes oats (*Avena* spp.), bromes (*Bromus diandrus*, *B. madritensis*, *B. hordeaceus*), black mustard, stork's bill (*Erodium* spp.), dove weed (*Croton setiger*), prickly Russian thistle (*Salsola tragus*), and Maltese star-thistle (*Centaurea melitensis*). It may occur where disturbance by maintenance (e.g., mowing, scraping, disking, and spraying), grazing, repetitive fire, agriculture, or other mechanical disruption has altered soils and removed native seed sources from areas formerly supporting native vegetation.

California annual grassland is located throughout the northern and southwestern portions of the project site. This vegetation community is dominated by bromes (*Bromus* spp.), slender oat (*Avena barbata*), common Mediterranean grass (*Schismus barbatus*), longbeak stork's bill (*Erodium botrys*), and black mustard (*Brassica nigra*). Coastal sagebrush was also found in low concentration within this vegetation community.

Disturbed

Disturbed land includes areas that experience or have experienced high levels of human disturbance and as a result are generally lacking vegetation. Areas mapped as disturbed land may include unpaved roads, trails, and graded areas. Vegetation in these areas, if present at all, is usually sparse and dominated by nonnative weedy herbaceous species.

Within the study area, disturbed land includes dirt roads and bare, open areas with less than 5 percent vegetative cover. Disturbed land is found throughout the study area, most notably at the top of the slope in the center of the project area and at the northeastern portion of the study area where mining operations were conducted.

Developed

Developed land refers to areas supported by man-made structures, including homes, yards, roadways, sidewalks, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Vegetation in these areas, if present at all, is typically associated with development landscaping. Within the biological survey study area, developed land is primarily dominated by surrounding residential development and a retirement home within the 500-foot buffer area, though there is a limited portion to the northeastern corner of the proposed development area consisting of a leveled and paved parking area and retaining walls constructed adjacent to some of the off-site private residences and associated landscaping.

Acreages on-site within each vegetation community and land cover are shown in Table 5.3-1, *Vegetation Communities and Land Covers Onsite.*

Table 5.3-1 Vegetation Communities and Land Covers Onsite

Vegetation Community/Land Cover	Area, Acres			
	500-Feet of Property Boundary (Acreage)	Total Property Boundary (Acreage)	Project Development Footprint (Acreage)	Brush Management Zone (Acreage)
Upland Communities				
Toyon Chaparral[1]	--	0.99	0.39	0.23
California Coastal Sagebrush	--	1.90	0.29	0.23
Disturbed California Coastal Sagebrush	--	0.89	--	0.10
Nonnative Grassland	3.04	6.75	2.74	0.39
Upland Mustards (Seminatural Strands)	3.15	9.07	0.23	--
Subtotal[2]	***6.19***	***19.60***	***3.66***	***0.96***
Nonnative Land Covers				
Disturbed Land	1.20	3.21	2.31	--
Ornamental	8.74	0.85	0.39	--
Developed Land	47.36	1.01	0.05	0.03
Subtotal[2]	***57.30***	***5.07***	***2.40***	***0.03***
Total	**63.50**	**24.67**	**6.06**	**0.99**

Source: Dudek 2018.
1 Sensitive vegetation community per CDFW.
2 Totals may not add to 100% due to rounding.

Wildlife

A total of 26 wildlife species were recorded on-site during surveys performed for the biological study.

Birds

A total of 21 bird species were audibly detected or observed on-site. Most bird species observed are common, disturbance-adapted species typical of urban and suburban settings such as song sparrow (*Melospiza melodia*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), and house finch (*Haemorhous mexicanus*). One Cooper's hawk (*Accipiter cooperii*) and a red-tailed hawk (*Buteo jamaicensis*) were observed. Other birds may use the property boundary and/or surrounding areas; however, no additional bird species were observed within the study area. Vegetation onsite—that is, the entire project site except for disturbed land (3.21 acres) and developed land (1.01 acres), or 20.45 acres—could be used for nesting by migratory birds protected under the MBTA and the California Fish and Game Code Sections 3503 et seq.

Reptiles and Amphibians

Two reptiles were observed within the study area: common side-blotched lizard (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*).

Mammals

Three mammal species were detected within the study area during the survey: Botta's pocket gopher (*Thomomys bottae.*), striped skunk (*Mephitis mephitis*), and brush rabbit (*Mephitis mephitis*).

5.3.1.3 SENSITIVE RESOURCES

Sensitive Natural Communities

Toyon chaparral—of which there is 0.99 acre onsite—is considered a sensitive natural community in California.

Sensitive Plants

No sensitive plant species were observed on-site during botanical surveys of the site in April 2015 and June 2016. No special-status species known to occur in the project region were determined to have a moderate to high potential to occur on-site. Habitat preferences of sensitive plant species known to occur in the region, and the potential of each species to occur on-site, are described in the biological report included as Appendix C to this DEIR.

Sensitive Animal Species

One sensitive animal species, Cooper's hawk (*Accipiter cooperii*) was identified onsite during general and focused surveys conducted between April 2015 and June 2016. Cooper's hawk breeds in extensive forests, smaller woodlots of deciduous, coniferous, and mixed pine-hardwoods; however, this species has also adapted to nest sites in both suburban and urban habitats. In urban areas, Cooper's hawks are known to nest in tall ornamental trees. This species was observed foraging in the upland mustard habitat in the central portion of the site in April 2016. Although this species did not exhibit breeding behavior and active nests were not observed during the site visit, the ornamental trees in the northern, western, and southern portions of the study area could provide suitable nesting substrate for Cooper's hawk and other raptors (e.g., red-tail hawk).

Two other sensitive animal species have a low to moderate potential to occur onsite: burrowing owl (*Athene cunicularia*) and western mastiff bat (*Eumops perotis californicus*). The burrowing owl is a CDFW Species of Special Concern. Burrowing owls are yearlong residents of open, dry grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon–juniper and ponderosa pine habitats. Preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils.

The western mastiff bat is a Species of Special Concern and has a Western Bat Working Group (WBWG) status of high priority (H). It can be found in a variety of habitats in the southwestern United States from desert and coastal scrub to coniferous forests and woodlands. Roosting sites tend to be in rocky crevices or cliffs that provide vertical protection from predators. The bat can also be found roosting in trees or man-made tunnels, chimneys, or other overhang structures.

Coastal California gnatcatcher is federally listed as threatened (FT) and is a Species of Special Concern. Coastal California gnatcatchers generally prefer open sage scrub habitats with California coastal sagebrush as a dominant or co-dominant species. Coastal sage scrub is a vegetation community that includes plant species

such as buckwheat, white, black and purple sage, bush sunflower, laurel sumac, lemonade berry, and the most common shrub, the California coastal sagebrush. Nest placement is typically in areas of less than 40 percent slope gradient. No California gnatcatcher pairs or individuals were observed within the study area during focused surveys conducted for coastal California gnatcatcher between April 2015 and June 2016. Additionally, the terrain in the study area is steeper than typically preferred by this species, and there is poor connection to existing known populations. While the project site is in federally designated critical habitat (Unit 8: Palos Verde Peninsula Subregion), it is unlikely that coastal California gnatcatchers would inhabit coastal sage scrub habitats mapped within the property boundary, including the proposed project development footprint, due to the steep terrain, proximity of the habitat to roads and disturbance, and the minimal and fragmented amount of suitable habitat present within the study area.

5.3.1.4 JURISDICTIONAL WATERS AND WETLANDS

A concrete-lined channel identified as Water Feature A in the biological study—108 feet long, 0.07 acre in area, and located along the southern site boundary—was determined to be potentially jurisdictional waters of the United States and waters of the State. Following, the southern concrete wall of the southern portion of the property, Water Feature A is outside of the proposed development area along the southern boundary of Slope 3. Because the channel is concrete-lined, it lacks vegetation; thus, these water features lack hydrophytic vegetation adjacent to the channel. No surface water was observed during the site visit. Due to the absence of hydric soils and hydrophytic vegetation, no wetlands were identified within the proposed project development footprint.

5.3.1.5 WILDLIFE CORRIDORS

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for dispersal or migration of animals as well as dispersal of plants. Wildlife corridors contribute to population viability by ensuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes such as fires.

Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. Although individual animals may not move through a habitat linkage, the linkage is a potential route for gene flow and long-term dispersal. Habitat linkages may serve both as habitat and avenues of gene flow for small animals such as reptiles, amphibians, and rodents. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat "islands" that function as stepping stones for dispersal and movement (especially for birds and flying insects).

The project site is not in a wildlife corridor or habitat linkage.

5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:[2]

B-1 Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

B-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

B-3 Have a substantial adverse effect 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, hydrological interruption, or other means.

B-4 Interfere substantially 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.

B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

B-6 Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold B-3
- Threshold B-5
- Threshold B-6

These impacts will not be addressed in the following analysis.

5.3.3 Environmental Impacts

5.3.3.1 METHODOLOGY

The proposed project involves the development of 248 dwelling units with a minimum lot size of 248,878 square feet (5.71 acres), and includes the construction of maintenance roads and biological retention areas. The development is proposed within a disturbed depression and terraced area along the northeastern portion of

[2] The significance thresholds set forth here are from the CEQA Guidelines Update approved by the California Office of Administrative Law in December 2018.

the property boundary, east and south of a moderate to steep slope, where former mining operations were prevalent in the past. Additionally, brush management zone would be maintained 100 feet from the building limit, and would be free of brush, flammable vegetation, and combustible growth, in accordance with the California Public Resources Code Sections 4291 et seq. and California Fire Code Chapter 49, Requirements for Wildland-Urban Interface Fire Areas. Brush management zones are also analyzed as permanent impacts in the analysis. Project impacts are estimated to total approximately 5.71acres for the proposed project development footprint and a 0.99 acre for brush management zone within the 6.0 acre of Lot 2. The remaining 12.92acres of Lot 3 are not proposed for development or as brush management zone, but are proposed to remain in its current state.

Data regarding biological resources in the study area were obtained through a review of pertinent literature and field reconnaissance. Special-status biological resources present or potentially present in the study area were identified through a literature search using the following sources:

- USFWS Critical Habitat and Occurrence Data (USFWS 2016a) within 5 miles of the project area.
- CDFW California Natural Diversity Database (CDFW 2016a) was queried to compile a list of potentially occurring flora and fauna in the Torrance USGS 7.5-minute topographic quadrangle and surrounding six quadrangles.
- California Native Plant Society Inventory of Rare, Threatened, and Endangered Plants of California, 8th online edition (CNPS 2016), was searched to compose a list of potentially occurring flora in the Torrance US Geological Survey (USGS) 7.5-minute topographic quadrangle and surrounding six quadrangles.
- USFWS National Wetlands Inventory Geographic Information System (GIS) Data (USFWS 2016b).
- Los Angeles County GIS Data Portal searched for potential hydric soils (County of Los Angeles 2004).
- USGS National Hydrography Dataset (USGS 2016).
- 1:200-scale aerial photographs and USGS 7.5-minute topographic quadrangles were reviewed for potential habitat and jurisdictional resources (Bing Maps 2016; Google Earth 2016; USGS 1981).

Between April 2015 and June 2016, Dudek conducted vegetation mapping, a habitat assessment for special-status species to occur, special-status plant surveys for early and late blooming species, focused surveys for burrowing owl (*Athene cunicularia*) and coastal California gnatcatcher (*Polioptila californica californica*), and a jurisdictional delineation. The jurisdictional delineation was conducted in the 24.68-acre project site. The remainder of the biological surveys were conducted in the 24.68-acre project site, plus a 500-foot buffer from the property boundary.

Impacts were determined and quantified by digitally overlaying the limits of development provided by the applicant onto the biological resources map. One water feature (Water Feature A) along the southern portion of the property boundary conveys water to a concrete v-ditch south of the property boundary. To assist in the determination of jurisdictional areas on-site, data was collected at 25 locations (i.e., data stations). Hydrology, vegetation, and soils were assessed, and data were collected and summarized in the biological study. Photographs documenting the data stations and associated drainages are provided in the biological study (DEIR Appendix C).

Direct permanent impacts, direct temporary impacts, and indirect impacts were all analyzed in the biological study for the purpose of this DEIR.

Direct permanent impacts refer to the absolute and permanent physical loss of a biological resource due to clearing and grading associated with implementation of the project and are analyzed in four ways: (1) permanent loss of vegetation communities, land covers, and general wildlife and their habitat; (2) permanent loss of or harm to individuals of special-status plant and wildlife species; (3) permanent loss of suitable habitat for special-status species; and (4) permanent loss of wildlife movement and habitat connectivity in the project area. Direct impacts associated with the proposed project include the residential development and installation of the flood/debris control infrastructure.

Direct temporary impacts refer to a temporal loss of vegetation communities and land covers resulting from vegetation and land cover clearing and grading associated with construction of proposed temporary haul roads and construction of proposed permanent new access roads, slope remediation, grade control structures, installation of culverts, and other improvements required for the project. The main criterion for direct temporary impacts is that impacts would occur for a short period of time and would be reversible. Areas temporarily disturbed by construction activities would be restored and revegetated with a native species mix, similar to what existed prior to disturbance, following completion of work in the area such that full biological function can be restored.

Indirect impacts are reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside the direct construction disturbance zone that may occur during construction (i.e., short-term construction-related indirect impacts) or later in time as a result of the development (i.e., long-term, or operational, indirect impacts). Indirect impacts may affect areas within the defined project development footprint but outside the construction disturbance zone, including open space and areas outside the project area, such as downstream effects. Indirect impacts include short-term effects immediately related to construction activities and long-term or chronic effects related to the human occupation of developed areas (i.e., development-related long-term effects). For the proposed project, it is assumed that the potential indirect impacts resulting from construction activities include dust, chemical pollution, noise, and general human presence that may temporarily disrupt species and habitat vitality, as well construction-related soil erosion and runoff that could affect downstream resources.

5.3.3.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.3-1: Development of the proposed project could impact habitat for sensitive wildlife or plant species. [Threshold B-1]

Direct Impacts

Sensitive Bird Species

Burrowing owl was not detected during focused burrowing owl surveys conducted between April and June 2016. Suitable burrowing owl habitat occurs in nonnative grassland habitat throughout the study area. Nonnative grassland and disturbed areas mapped within the proposed project development footprint have the potential to support burrowing owl. Although suitable burrows (i.e., burrows with greater than four-inch diameter at entrance) were not detected within the proposed project development footprint, direct impacts to occupied burrowing owl nesting, foraging, or wintering habitat are considered significant without mitigation.

Cooper's hawk (*Accipiter cooperii*) was the only special-status bird species detected during surveys conducted between April and June 2016. There is a moderate potential for Cooper's hawk to nest within the ornamental trees within the northern, eastern, and southern portions of the study area. Although the proposed project development footprint does not provide suitable nesting or perching substrate, suitable habitat occurs within adjacent areas. Thus, direct impacts to Cooper's hawk and other raptors are not anticipated.

Coastal California gnatcatcher was not detected during focused surveys conducted for this species in 2016. Additionally, there is limited coastal scrub habitat within the property boundary, most of which occurs along steep slopes. These slopes are typically too steep for this species. The closest documented occurrence for coastal California gnatcatcher is approximately two miles south of the property boundary, and the study area is surrounded by development to the north, east, and south, with no suitable gnatcatcher habitat to the west. Although the property boundary is within USFWS-designated critical habitat for this species, coastal California gnatcatcher has a low chance of occurring within the study area based on the negative results of focused coastal California gnatcatcher surveys conducted in the study area in 2016, the small extent of coastal scrub and chaparral habitats within the study area, the steep slopes in which most of this habitat occurs, and the isolation of the site. Thus, there is a low potential for coastal California gnatcatcher to occur within the study area, no further analysis is required, and impacts to this species are not anticipated.

Sensitive Mammal Species

No special-status mammals were detected during the 2016 field survey. The only special-status mammal with low to moderate potential to forage or roost within the study area is western mastiff bat. Construction activities are anticipated to occur during daylight hours and would not impact occasional bats foraging in the study area. The steep cliffs within the property boundary may provide suitable roosting habitat for this species. However, this habitat is limited. Additionally, the closest documented occurrence of this species is over six miles north of the property boundary. Thus, direct and/or indirect impacts to suitable roosting habitat are anticipated to be minimal and impacts to western mastiff bat are considered less than significant.

Temporary Direct Impacts

Short-term, construction-related, or temporary direct impacts to special-status wildlife species would primarily result from vegetation removal activities. Clearing or trampling of vegetation communities outside the proposed impact limits could occur without avoidance and mitigation measures. These potential effects could reduce suitable habitat for wildlife species and alter their ecosystem, thus creating gaps in vegetation that allow exotic, nonnative plant species to become established. This impact would be significant if not mitigated.

Indirect Impacts

Short-Term Indirect Impacts

Short-term indirect impacts to sensitive animal species would primarily result from vegetation removal during grading associated with the construction of the new residential development and associated roads, as well as installation of flood/debris control infrastructure. Potential temporary indirect impacts could occur due to generation of fugitive dust, noise, lighting, chemical pollutants, increased human activity, and nonnative animal species. All special-status wildlife species observed or with a moderate to high potential to occur on-site could be impacted by potential temporary indirect impacts such as those listed below.

Generation of Fugitive Dust. Dust can impact vegetation surrounding the proposed project development footprint, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Construction Noise. Project-related noise could occur from equipment used during construction activities. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startling, degraded communication with animals of the same species, damaged hearing from extremely loud noises, and increased vulnerability to predators. The use of mechanized hand tools could cause temporary disruption of behavior for the period the tool is in use, including causing wildlife to temporarily vacate an area and suppressing important activities, such as foraging. This impact is potentially significant.

Lighting. Lighting may affect behavioral activities, physiology, population ecology, and ecosystems of both diurnal and nocturnal wildlife. Light pollution has three types of effects: chronic or periodically increased illumination, unexpected changes in lighting, and direct glare. Chronic increased illumination includes skyglow, lighted buildings and towers, streetlights, and security lights. Unexpected changes in lighting may occur from vehicle lights or other discrete events such as spotlighting by law enforcement helicopters. Direct glare may be chronic or unexpected. As such, lighting impacts are potentially significant.

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate surface waters and indirectly impact wildlife species through direct or secondary poisoning and other sublethal effects (e.g., endocrine impacts), reduced prey availability, or altering suitable habitat.

Increased Human Activity. Construction activities can deter wildlife from using habitat areas near or adjacent to the proposed activities while activities are in progress.

Predatory Animals. Trash and garbage from project-related activities could attract invasive predators such as ravens, gulls, crows, opossums, skunks, and raccoons that could impact the native wildlife species in the project area, including increased predation.

Long-Term Indirect Impacts

Potential long-term or permanent indirect impacts to special-status wildlife species include the invasion of nonnative, invasive plant and animal species; habitat fragmentation; and altered hydrology.

Nonnative Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Removal of vegetation could fragment native plant populations, which may increase the likelihood of invasion by nonnative plants due to the increased interface between natural habitats and developed areas. There are several adverse effects of nonnative species in natural open areas, including but not limited to the fact that nonnative, invasive plants compete for light, water, and nutrients and can create a thatch that blocks sunlight from reaching smaller native plants. Nonnative, invasive plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and subsequently suitable habitat for sensitive and other native wildlife species. Invasive plant communities may also attract nonnative animals such as house mouse (*Mus musculus*) and rats (*Rattus* spp.) that may compete with and/or displace native species. Migratory bird collision into high rise buildings is a modern occurrence; however, the building will be designed with clear reflective glass to prevent such occurrence.

Altered Hydrology. The removal of vegetation and grading activities can alter the hydrology, and these hydrologic alterations may affect special-status wildlife species. Vegetation slows and absorbs rainfall; and roots help stabilize soil. Thus, removing vegetation and grading activities can increase soil erosion and runoff. Altered hydrology can allow for the establishment of nonnative plants, which in turn could affect the native vegetation communities and wildlife habitat.

Summary

Direct or indirect temporary impacts to the special-status wildlife, including burrowing owl as a result of direct disturbance or indirect impacts (e.g., fugitive dust, construction noise, lighting, chemical pollutants, increased human activity, and non-native, invasive plant and animal species) outside of the impact area would be significant absent mitigation.

Impact 5.3-2: Development of the proposed project would cause loss of 0.62 acre of toyon chaparral, a sensitive natural community. [Threshold B-2]

Direct Impacts

Direct permanent and temporary impacts to vegetation communities within the proposed project development footprint are summarized in Table 3.5-2, *Permanent and Temporary Direct Impacts to Vegetation Communities and Land Covers within the Solana Torrance Project Site*. Direct impacts to vegetation communities would occur as a result of vegetation removal activities. Site clearance before site grading would cause direct impacts to 0.62 acre of toyon

chaparral, a sensitive natural community, consisting of 0.39 acre in the development area and 0.23 acre in the brush management zone.

Table 5.3-2 Permanent and Temporary Direct Impacts to Vegetation Communities and Land Covers within the Solana Torrance Project Site

Vegetation Community/Land Cover	Area, Acres				
	Direct Permanent Impacts Project Development Area (Acreage)	Direct Permanent Impacts Burn Management Areas (Acreage)	Direct Temporary Impacts (Acreage)	Total Acreage within the Property Boundary (Acreage)	Remaining Open Space Acreage within the Property Boundary (Acreage)
Upland Communities					
California Coastal Sagebrush	0.29	0.23	--	1.90	1.37
Disturbed California Coastal Sagebrush	--	0.10	--	0.89	0.79
Nonnative Grassland	2.74	0.39	--	6.75	3.62
Subtotal	***3.03***	***0.73***	**--**	***9.54***	**5.78**
Woodland Communities					
Toyon Chaparral[1]	0.39	0.23	--	0.99	0.36
Subtotal	**0.39**	**0.23**	**--**	**0.99**	**0.36**
Non-Native Land Covers					
Developed Land	0.05	0.03	--	1.01	0.93
Disturbed Land	2.31	--	--	3.21	0.90
Ornamental	0.04	--	--	0.85	0.81
Upland Mustards (Semi-Natural Strands)	0.23	--	--	9.07	8.84
Subtotal	***2.63***	***0.03***	**--**	***14.14***	***11.48***
Total	**6.06**	**0.99**	**--**	**24.67**	**17.62**

Dudek 2018.
Note: Subtotals and totals may not add up due to rounding.
1 Sensitive vegetation community per CDFW.

Indirect Impacts

One additional indirect impact to toyon chaparral—both temporary and long-term—would be alteration of the natural fire regime. Urbanization alters wildfire regimes due to human activities at the open space–urban interface, such as accidental ignitions and intentional ignitions, such as arson. While wildfires are most likely to be ignited in edge areas, the actual effect of large wildfires can occur at the much broader landscape level, especially when fires are quickly spread into undeveloped lands by strong winds. These indirect impacts could affect the special-status vegetation communities with implementation of the proposed project.

Impact 5.3-3: Project development would impact vegetation that could be used for nesting by birds protected under federal and state laws. Development would not impact wildlife movement or migration corridors. [Threshold B-4]

Nesting Birds

Nesting native birds protected under the Migratory Bird Treaty Act and California Fish and Game Code could occur within and adjacent to the proposed development area. The study area does not function as a designated wildlife corridor or habitat linkage and is not expected to impact designated wildlife corridors or habitat linkages identified in the South Coast Missing Linkages analysis conducted by South Coast Wildlands (Dudek 2017). Direct and indirect significant impacts to nesting native birds could occur without mitigation measures.

5.3.4 Cumulative Impacts

The area considered for cumulative impacts to biological resources is the Palos Verdes Hills, covering about 25 square miles of the central and western Palos Verdes Peninsula of southwest Los Angeles County. A Draft Rancho Palos Verdes Habitat Conservation Plan has been prepared that would span more than half of the Palos Verdes Hills (13.5 square miles, or approximately 8,640 acres). The HCP would encompass five natural vegetation communities and cover 10 species (6 plant species, 2 bird species, and 2 insect species). The proposed HCP Reserve would span about 1,504 acres (RPV 2018). The existing Palos Verdes Nature Preserve, owned by the City of Rancho Palos Verdes and managed by the Palos Verdes Peninsula Land Conservancy, spans about 1,400 acres in 10 Reserves (PVPLC 2019). About 4,462 acres in the Palos Verdes Hills are designated critical habitat for the coastal California gnatcatcher.

Sensitive Species and Natural Communities

Future projects would impact suitable habitat for sensitive species protected under laws such as FESA, CESA, and the California Native Plant Protection Act. By law, such projects would be required to implement all feasible mitigation measures to reduce such impacts. Therefore, the proposed project's contribution to cumulative impacts related to sensitive species and natural communities would not be cumulatively considerable, and cumulative impacts would be less than significant.

Nesting Birds

Future projects would impact nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. By law, such project would be required to implement all feasible mitigation measure to reduce such impacts. Therefore, the proposed project's contribution to cumulative impacts related to nesting birds would not be cumulatively considerable , and cumulative impacts would be less than significant.

Jurisdictional Waters and Wetlands

Numerous small ephemeral streams in the Palos Verdes Hills are mapped as wetlands on the National Wetlands Mapper maintained by the US Fish and Wildlife Service (USFWS 2017). Some other projects would impact wetlands by filling or changing surface water flows discharging into wetlands. Other projects would be required to obtain permits for impacts to wetlands under the federal Clean Water Act from the Corps and the Los

Angeles RWQCB, and under the California Fish and Game Code from the CDFW. Permit conditions would include mitigation for impacts. Therefore, due to the project's distance from the closest jurisdictional waters. the proposed project's contribution to cumulative impacts related to jurisdictional waters and wetlands would not be cumulatively considerable, and cumulative impacts would be less than significant.

Habitat Conservation Plan

The Draft Rancho Palos Verdes HCP spans about 13.5 square miles of the Palos Verdes Hills. Pending approval of the HCP by the USFWS and/or CDFW, projects in the HCP Area would obtain take authorization for impacts to covered species and habitats through the HCP by dedicating land or paying fees to the HCP (RPV 2018). The proposed project is not within the study area of the Draft Rancho Palos Verdes HCP. Cumulative impacts are expected to be less than significant, and project impacts would not be cumulatively considerable.

5.3.5 Existing Regulations and Standard Conditions

Federal

United States Code, Title 16, Sections 1531 et seq.: Endangered Species Act

United States Code, Title 16, Sections 703-712: Migratory Bird Treaty Act

State

California Fish and Game Code, Section 2080: Endangered Species Act

California Fish and Game Code Sections 2800 et seq.: Natural Community Conservation Planning Act

California Fish and Game Code, Section 1600: Lakes and Streambeds

California Public Resources Code Sections 30000 et seq.: California Coastal Act

California Fish and Game Code, Sections 3503 et seq.: Protections for birds

California Fish and Game Code Sections 1900 et seq.: California Native Plant Protection Act

5.3.6 Level of Significance Before Mitigation

Without mitigation, these impacts would be **potentially significant**:

- Impact 5.3-1 Project development could impact burrowing owl (*Athene cunicularia*) and result in indirect impacts to sensitive species.
- Impact 5.3-2 Project development would cause loss of 0.62 acre of Toyon chaparral, a sensitive natural community.
- Impact 5.3-3 Project development would impact vegetation that could be used for nesting by birds protected under existing laws.

5.3.7 Mitigation Measures

Impact 5.3-1

Direct Impacts to Burrowing Owl

BIO-1 Potentially suitable habitat to support burrowing owl is present within the proposed project development footprint and adjacent areas. Prior to the initiation of construction activities, a qualified biologist shall conduct preconstruction clearance surveys for burrowing owl. These shall be conducted in accordance with the most current CDFW protocol within 30 days of site disturbance to determine whether burrowing owl is present at the site (CDFW 2012). Preconstruction surveys shall include suitable burrowing owl habitat (e.g., areas with open habitat, low slope terrain, 4-inch or greater diameter burrows) within the proposed project development footprint, brush management zone, and an appropriate buffer as required in the most recent guidelines and where legal access to conduct the survey exists. If burrowing owls are not detected during the clearance survey, no additional mitigation is required.

If burrowing owls are located, occupied burrowing owl burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through noninvasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and capable of independent survival. A 500-foot no-disturbance buffer (where no work activities may be conducted) will be maintained between project activities and nesting burrowing owls during the nesting season, unless otherwise authorized by CDFW. If burrowing owl are detected during the nonbreeding season (September 1 through January 31) or confirmed to not be nesting, a 160-foot buffer no-disturbance buffer will be maintained between the project activities and occupied burrow.

Alternatively, a Burrowing Owl Relocation and Mitigation Plan may be prepared and implemented to relocate nonbreeding burrowing owls from the proposed project development footprint. The plan will detail methods and guidance for passive relocation of burrowing owls from the proposed project development footprint, provide monitoring and management of the replacement burrow sites, reporting requirements, and ensure that a minimum of two suitable, unoccupied burrows are available off-site for every burrowing owl burrow that is closed. Construction work may proceed after owls have been excluded from the site following accepted protocol and approval of CDFW. Results of the surveys and relocation efforts shall be provided to CDFW.

Indirect Impacts to Sensitive Species

BIO-2 The following construction best management practices (BMPs) shall be implemented to minimize indirect impacts to special-status wildlife species during construction activities.

- **Avoid Wildlife Entrapment.**

a. Backfill Trenches. At the end of each workday, check that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled, covered, or sloped to allow wildlife egress. Should wildlife become trapped, a qualified biologist shall remove and relocate it.

b. Avoid entrapment of nesting or migratory birds. All pipes or other construction materials or supplies will be covered or capped in storage or laydown areas at the end of each workday. No pipes or tubing of sizes or inside diameters ranging from 1 to 10 inches will be left open either temporarily or permanently.

- **Trash.** All food-related trash items (such as wrappers, cans, bottles, and food scraps) shall be disposed of in closed containers and removed daily from the proposed project development footprint. When construction operations are completed, any remaining trash will be removed from the work area.
- **Lighting.** Lighting along the perimeter of natural areas shall be shielded and oriented to minimize light shine into the natural areas.

Impact 5.3-2

Indirect Impacts to Toyon Chaparral

BIO-3 The following measures shall be implemented during construction activities to reduce indirect impacts to toyon chaparral, a sensitive natural community.

- **Mark Disturbance Limits.** To prevent inadvertent disturbance to special-status vegetation communities outside the limits of work, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence) prior to ground disturbance activities. All construction activities, including equipment staging and maintenance, shall be conducted within the marked disturbance limits. Vegetation removal shall be monitored by a biologist and standard best management practices (BMPs) will be implemented. A biologist shall be contracted to perform biological monitoring during all clearing activities.

The biological monitor shall carry out the following:

a. Review and/or designate the vegetation removal area in the field with the contractor in accordance with the final plan.

b. Be present during initial vegetation clearing and grubbing.

c. Record any advertent impacts to vegetation communities outside the designated construction zone in monthly monitoring reports to be provided to the City's Community Development Department.

- **Standard Dust Control Measures.** Standard dust control measures shall be implemented to reduce impacts on nearby plants and wildlife during construction. Measures may include replacing ground cover in disturbed areas as quickly as possible, frequently watering active work sites, installation of shaker plates, and suspending excavation and grading operations during periods of high winds.
- **Minimize Spills of Hazardous Materials.** All vehicles and equipment shall be maintained in proper condition to minimize the potential for spills of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials during construction. Hazardous spills shall be immediately cleaned up, and the contaminated soil shall be properly handled or disposed of at a licensed facility. Servicing of construction equipment shall take place only at a designated staging area.
- **Landscape Design.** Prior to installation of any landscaping, plant palettes shall be reviewed by the project biologist to minimize the effects that proposed landscape plants could have on biological resources outside of the impact footprint due to potential naturalization of landscape plants in the area designated as open space. Landscape plants will not include invasive plant species on the most recent version of the Cal-IPC California Invasive Plant Inventory for the project region. All plant stock shall be fumigated for pests, including Argentine ants, just prior to bringing the plants to the site for installation. Landscape plans will include a plant palette composed of native or nonnative, noninvasive species that do not require high irrigation rates.

Impact 5.3-3

BIO-4 The following measures shall be implemented to reduce impacts to nesting birds.

Ground-disturbance and vegetation removal activities shall be avoided during nesting bird season, from approximately February 15 through August 31. If ground-disturbing and/or vegetation removal activities cannot be completed outside the nesting bird season, the following measures shall be implemented:

- Surveys shall be conducted by a qualified biologist within 300 feet of disturbance areas (500 feet for raptors) within the project site no earlier than 3 days prior to the commencement of disturbance. If ground-disturbance activities are delayed, then additional predisturbance surveys shall be conducted such that no more than 3 days will have elapsed between the survey and ground-disturbance activities. Surveys need not be conducted if topography, high traffic roads, or buildings buffer the survey zone (i.e., if a commercial building occurs 100 feet away from construction, surveys would end at the limit of the building and not be required beyond).
- If active nests are found (CDFW defines "active" as any nest that is under construction or modification; USFWS defines "active" as any nest that is currently supporting viable eggs, chicks, or juveniles), clearing and construction shall be postponed or halted within a buffer area established by the qualified biologist that is suitable to the particular bird

species and location of the nest (typically a starting point of 300 feet for most birds and 500 feet for raptors, but may be reduced as approved by the biologist), until the nest is vacated and/or juveniles have fledged, as determined by the qualified biologist. The construction avoidance area shall be clearly demarcated in the field with highly visible construction fencing or flagging, and construction personnel shall be instructed on the sensitivity of nest areas.

A qualified biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests occur. The results of the surveys, including graphics showing the locations of any active nests detected, and documentation of any avoidance measures taken, shall be submitted to the City within 7 days of completion of the preconstruction surveys or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

- Surveys, and resulting buffers, will be repeated if construction within any phase is paused for more than 30 days.

5.3.8 Level of Significance After Mitigation

Impact 5.3-1

Avoidance and/or relocation of burrowing owls, as required under BIO-1, would reduce impacts to burrowing owl to less than significant. Implementation of MM-BIO-2 would reduce indirect impact to special-status wildlife species to less than significant.

Impact 5.3-2

Implementation of BIO-3 would reduce indirect impacts to toyon chaparral to less than significant.

Impact 5.3-3

Avoidance of active nests, as required under BIO-4, would reduce impacts to nesting birds to less than significant.

No significant and unavoidable impacts would occur.

5.3.9 References

Department of the Interior, Fish and Wildlife Service. 2000, October 24. Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Coastal California Gnatcatcher. https://www.fws.gov/policy/library/2000/00fr63679.pdf.

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