4.3 Biological Resources

This section describes the existing conditions related to biological resources within the Fanita Ranch Project (proposed project) site and evaluates the potential for impacts to those resources due to implementation of the proposed project. The information in this section is based on the Biological Technical Report prepared by Dudek (2020) that is included as Appendix D of this EIR.

4.3.1 Environmental Setting

4.3.1.1 Biological Survey Methods

Data regarding biological resources present on the project site were obtained through a review of pertinent literature, vegetation communities mapping conducted in May 2014 and September 2016, jurisdictional wetland delineation conducted in May 2016, focused biological surveys conducted during the appropriate time of year in 2015 through 2017, and historical wildfire research. A complete summary of surveys conducted on the project site is provided in Table 3-1, Schedule of Surveys for Fanita Ranch, in Appendix D. Special-status biological resources present or potentially present on the project site were identified through a literature search and a review of the pre-2003 wildfire conditions and cumulative data collected in previous biological impact reports drafted for the proposed project (Dudek 1997, 2005, 2006, 2007, as cited in Appendix D). The original vegetation mapping finalized in 1997 was verified and updated in May 2014 to identify the vegetation communities currently present on the project site. All plant and wildlife species observed in the field were identified and recorded. Focused surveys were conducted for special-status plant species, including a focused survey exclusively for willowy monardella (*Monardella viminea*), and eight sensitive wildlife species, including Quino checkerspot butterfly (*Euphydryas editha quino*), burrowing owl (*Athene cunicularia*), coastal California gnatcatcher (*Polioptila californica californica),* least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher, coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis),* San Diego fairy shrimp (*Branchinecta sandiegonensis*), Riverside fairy shrimp (*Streptocephalus woottoni*), Hermes copper butterfly (*Lycaena hermes*), and western spadefoot (*Spea hammondii*), also known as western spadefoot toad. Previous jurisdictional delineations conducted in 2004 were updated and verified in 2016. Historical wildfires in the region and their effect on the distribution and densities of special-status plants were identified and used to determine survey needs. These methods are described in greater detail in Section 3, Survey Methodologies, in Appendix D.

4.3.1.2 General Biological Survey Results

Vegetation Communities

Twenty-eight vegetation communities and/or land cover types were identified on the project site. These vegetation communities and their acreages are shown in Table 4.3-1. Refer to Figures 4-1a

through 4-1af in Section 4.1, Vegetation Communities and Land Cover Types, in Appendix D for additional detail depicting the locations of the biological resources present on the project site.

Table 4.3-1. Existing Vegetation Communities and Land Cover Types on the Project Site and Off-Site Improvement Areas

General Vegetation Community/Land Cover Category	Vegetation Type (Holland/ Oberbauer Code)[1]	On Site	Off Site	Total
Disturbed and Developed Areas (10000)	Disturbed Habitat (11300)	115.21	5.43	120.64
	Disturbed Wetland (11200)	0.09	—	0.09
	Non-Native Vegetation (11000)	6.05	—	6.05
	Urban/Developed (12000)	9.88	3.50	13.37
Disturbed and Developed Areas Subtotal[2]		*131.23*	*8.93*	*140.15*
Scrub and Chaparral (30000)	Diegan Coastal Sage Scrub (32500)	1,017.13	6.26	1,023.39
	Diegan Coastal Sage Scrub (disturbed) (32500)	259.85	11.99	271.84
	Diegan Coastal Sage Scrub (fire recovered) (32500)	9.57	0.17	9.74
	Diegan Coastal Sage Scrub/Valley Needlegrass Grassland (32500/42110)	63.79	0.10	63.89
	Diegan Coastal Sage Scrub/Valley Needlegrass Grassland (disturbed) (32500/42110)	51.10	2.38	53.47
	Diegan Coastal Sage Scrub/Non-Native Grassland (disturbed) (32500/42200)	27.47	—	27.47
	Diegan Coastal Sage Scrub–Baccharis-dominated (32530)	21.60	—	21.60
	Granitic Southern Mixed Chaparral (37121)	601.06	—	601.06
Scrub and Chaparral Subtotal[1]		*2,051.57*	*20.90*	*2,072.47*
Grasslands, Vernal Pools, Meadows, and Other Herb Communities (40000)	Valley Needlegrass Grassland (42110)	113.82	—	113.82
	Valley Needlegrass Grassland (disturbed) (42110)	64.14	—	64.14
	Non-native Grassland (42200)	211.65	2.72	214.36
	Non-native Grassland/Non-native Vegetation (42200/11000)	14.96	—	14.96
	Vernal Pool (44000)[3]	0.80	0.01	0.81
Grasslands, Vernal Pools, Meadows, and Other Herb Communities Subtotal[2]		*405.37*	*2.73*	*408.10*
Bog and Marsh (50000)	Cismontane Alkali Marsh (52310)	0.40	—	0.40
	Coastal and Valley Freshwater Marsh (52410)	0.02	—	0.02
	Coastal and Valley Freshwater Marsh (disturbed) (52410)	0.12	—	0.12
Bog and Marsh Subtotal[1]		*0.54*	—	*0.54*
Riparian and Bottomland Habitat (60000)	Southern Arroyo Willow Riparian Forest (61320)	1.54	—	1.54
	Southern Sycamore–Alder Riparian Woodland (62400)	3.23	—	3.23
	Mulefat Scrub (63310)	1.86	—	1.86
	Southern Willow Scrub (63320)	0.86	—	0.86
	Southern Willow Scrub (disturbed) (63320)	0.48	—	0.48

Table 4.3-1. Existing Vegetation Communities and Land Cover Types on the Project Site and Off-Site Improvement Areas

General Vegetation Community/Land Cover Category	Vegetation Type (Holland/ Oberbauer Code)[1]	On Site	Off Site	Total
	Non-vegetated Channel or Floodway (64200)	9.82	0.05	9.88
	Arundo-Dominated Riparian[4] (65100)	1.93	—	1.93
Riparian and Bottomland Habitat Subtotal[2]		*19.73*	*0.05*	*19.78*
Woodland (70000)	Coast Live Oak Woodland (71160)	29.63	—	29.63
Woodland Subtotal[2]		29.63	—	*29.63*
Sensitive Vegetation Subtotal[1]		*2,491.44*	*23.68*	*2,515.12*
Grand Total[1]		**2,638.07**	**32.60**	**2,670.67**

Source: Appendix D.

Notes: Off-site areas refer to the proposed northerly extension of Cuyamaca Street by way of Mast Boulevard and the future extension of Magnolia Avenue to Cuyamaca Street.

[1] All vegetation communities occurring on site are considered sensitive in the Draft Santee Multiple Species Conservation Program (MSCP) Subarea Plan (City of Santee 2018), with the exception of disturbed habitat, non-native vegetation, urban/developed, and non-native grassland/non-native vegetation.

[2] Totals may not sum due to rounding.

[3] This is a Holland/Oberbauer Code and should not be confused with the later discussion regarding pool-like features and seasonal basin features.

[4] Since this is a non-native vegetation community, only the portion under California Department of Fish and Wildlife jurisdiction (1.40 acres) is considered sensitive.

Disturbed and Developed Areas (Holland Code 10000)

Disturbed Habitat (11300). Disturbed habitat is a land cover type characterized by a predominance of non-native species, often introduced and established through human action. Oberbauer et al. (2008) describes disturbed land as areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association but continues to retain a soil substrate. Typically, if vegetation is present, it is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species (i.e., weeds). A total of 120.64 acres of disturbed habitat occurs on and off site and primarily includes dirt roads. Disturbed habitat is not considered a sensitive vegetation community in the Draft Santee Multiple Species Conservation Program (MSCP) Subarea Plan unless there is presence of burrowing owls using this habitat (City of Santee 2018).

Disturbed Wetlands (11200). Disturbed wetland is an area permanently or periodically inundated by water that have been substantially modified by human activity. Disturbed wetland is often unvegetated, but may include some scattered native or non-native vegetation. Some characteristic non-native species that may be associated with disturbed wetland include giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), palms (*Phoenix* spp., *Washingtonia* spp.), and pampas grass (*Cortaderia* spp.). Native wetland species, such as willows (*Salix* spp.) and cattails (*Typha* spp.), also may be present at low cover. Disturbed wetland includes portions of wetlands with obvious artificial structures, such as concrete lining, barricades, riprap, piers, or gates. Therefore, lined channels, Arizona crossings, detention

basins, culverts, and ditches would be considered disturbed wetlands. Disturbed wetlands occur throughout the County of San Diego (County) (Oberbauer et al. 2008). Only 0.09 acre of disturbed wetland occurs on site. This vegetation community is considered sensitive in the Draft Santee MSCP Subarea Plan (City of Santee 2018) and by the resource agencies.

Non-Native Vegetation (11000). Non-native vegetation includes trees, shrubs, and herbs that are not native to San Diego. Non-native vegetation on the project site largely consists of ornamental plantings along roadways or as part of fuel modification adjacent to residences that are not typically artificially irrigated and that receive water from precipitation or runoff. A total of 6.05 acres of non-native vegetation occurs on site in several locations within the Habitat Preserve and proposed village development, primarily adjacent to Fanita Parkway and along the southern boundary of the project site. Non-native vegetation is not considered a sensitive vegetation community by the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Urban/Developed (12000). According to Oberbauer et al. 2008, urban/developed represents areas that have been constructed upon or otherwise physically altered to an extent that native vegetation communities are not supported. This land cover type generally consists of semi-permanent structures, residences, parking lots, pavement or hardscape, and landscaped areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated or supports a variety of ornamental plants and landscaping. A total of 13.37 acres of urban/developed land occurs on and off site and include a complex system of dirt roads and pioneered trails, many of which receive heavy non-authorized use from off-road vehicle traffic, bikers, hikers, dog walkers, and other forms of recreation. Some of the dirt roads occur on a San Diego Gas & Electric Company (SDG&E) easement providing necessary access to power transmission towers. In addition, the project site is regularly used by helicopter pilots and local first responder personnel for training purposes. Urban/developed land is not considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Scrub and Chaparral (30000)

Diegan Coastal Sage Scrub (32500). Diegan coastal sage scrub is a native vegetation community. According to Oberbauer et al. (2008), coastal sage scrub is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.) with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). Diegan coastal sage scrub occupies 1,017.13 acres on site and occurs in many patches within undisturbed areas. An additional 6.26 acres occur within the Cuyamaca Street and Magnolia Avenue street extensions. Approximately 9.74 acres of fire-recovered Diegan coastal sage on site are in two southern portions of the project site: east of Settle Road and a small patch west of Hitching Post Way. In addition, 259.85 acres of disturbed Diegan coastal sage scrub on site occur in several areas, with the majority in the central and northern boundary of the project site;

11.99 acres occur off site, mostly within the Cuyamaca Street and Magnolia Avenue street extensions. Diegan coastal sage scrub (including disturbed areas) is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Diegan Coastal Sage Scrub–Valley Needlegrass Grassland (32500/42110). Diegan coastal sage scrub–valley needlegrass grassland is similar to Diegan coastal sage scrub but includes considerable cover of purple needlegrass (*Stipa pulchra*). This vegetation community is not included in Holland (1986) or Oberbauer et al. (2008). This combination of vegetation communities is project specific and mapped in areas that are supported by more than 20 percent purple needlegrass within Diegan coastal sage scrub. See description for Diegan coastal sage scrub in Section 3.1.5 and valley needlegrass grassland in Section 3.1.10 in Appendix D. Approximately 63.79 acres of Diegan coastal sage scrub–valley needlegrass grassland occur on site in several locations, primarily within the southern portion of the project site, and 0.10 acre occurs off site within the Cuyamaca Street extension. In addition, 51.10 acres of disturbed Diegan coastal sage scrub–valley needlegrass grassland on site are located in large patches west of Via Francis and east of Sycamore Canyon Road, and 2.38 acres occur off site within the Cuyamaca Street extension. Diegan coastal sage scrub and valley needlegrass grassland are considered sensitive vegetation communities in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Diegan Coastal Sage Scrub–Non-Native Grassland (32500/42200). Disturbed Diegan coastal sage scrub–non-native grassland is similar to Diegan coastal sage scrub, but is dominated by wild oat (*Avena fatua*), bromes (*Bromus* spp.), stork's bill (*Erodium* spp.), and mustard (*Brassica* spp.). This vegetation community is not included in Holland (1986) or Oberbauer et al. (2008). This combination of vegetation communities is project specific and is mapped in areas supported by more than 20 percent non-native grasses within Diegan coastal sage scrub. See descriptions for Diegan coastal sage scrub and non-native grassland below. Approximately 27.47 acres of disturbed Diegan coastal sage scrub–non-native grassland on site occur in several locations, including north of Cambury Drive and east of Sycamore Canyon Road. Diegan coastal sage scrub and non-native grassland are considered sensitive vegetation communities in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Diegan Coastal Sage Scrub–Baccharis-Dominated (32530). Diegan coastal sage scrub–Baccharis-dominated is similar to Diegan coastal sage scrub but dominated by *Baccharis* species including desert broom (*B. sarothroides*) and/or coyote brush (*B. pilularis*) (Oberbauer et al. 2008). This community typically occurs on disturbed sites or those with nutrient-poor soils and is often found within other forms of Diegan coastal sage scrub and on upper terraces of river valleys. This community is distributed along coastal and foothills areas in the County. Approximately 21.60 acres of Diegan coastal sage scrub–Baccharis-dominated on site occur in several locations, with the majority in the southern portion of the project site north of Carlton Hills Boulevard. Diegan

coastal sage scrub–Baccharis-dominated is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Granitic Southern Mixed Chaparral (37121). Granitic southern mixed chaparral is similar to southern mixed chaparral but dominated by granitic soils. Granitic southern mixed chaparral is a drought- and fire-adapted community of woody shrubs from 5 to 10 feet tall that often forms dense, impenetrable stands. It develops primarily on mesic north-facing slopes and in canyons, and is characterized by crown- or stump-sprouting species that regenerate following fire. This association typically contains chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), wild lilac (*Ceanothus* spp.), and laurel sumac.

Due to its high-density cover, there is little or no understory in this community, except for in openings. The dominant species in the southern mixed chaparral on site are chamise, laurel sumac, white sage (*Salvia apiana*), coyote brush, and sticky monkeyflower (*Diplacus aurantiacus*).

Approximately 601.06 acres of granitic southern mixed chaparral occur on site in several locations in the northwestern portion of the project site. Granitic southern mixed chaparral is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018), as a form of mixed chaparral.

Grasslands, Vernal Pools, Meadows, and Other Herb Communities (40000)

Valley Needlegrass Grassland (42110). Valley needlegrass grassland is characterized by a sparse to dense cover of perennial grasses typically up to 2 feet tall. This vegetation community typically occurs on fine-textured soils, often clay, that are moist or wet in the winter and very dry during summer and fall. Characteristic plant species typically include native grass species such as purple needlegrass, bromes, and goldfields (*Lasthenia* spp.) (Oberbauer et al. 2008). Plant species observed within native grassland include purple needlegrass, with forbs such as common goldenstar (*Bloomeria crocea*) and California blue-eyed grass (*Sisyrinchium bellum*). The percentage cover of native species can be quite low, but an area can be designated as native grassland if there is 20 percent cover of native grassland species. In the County, native grassland often occurs where the native vegetation has been disturbed by grazing, fire, agriculture, or other activities.

A total of 113.82 acres of valley needlegrass grassland communities occur on site in several locations, primarily along the southern and western boundaries. In addition, 64.14 acres of disturbed valley needlegrass grassland on site occur in two areas, including east and north of Sycamore Canyon Road on the western portion of the project site. Valley needlegrass grassland (including disturbed) is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Non-Native Grassland (42200). Non-native grassland consists of dense to sparse cover of annual grasses with flowering culms between 0.5 to 3 feet in height (Oberbauer et al. 2008). In the County the presence

of wild oat, bromes, stork's bill, and mustard are common indicators. In some areas, depending on past disturbance and annual rainfall, annual forbs may be the dominant species; however, it is presumed that grasses will dominate. Non-native grassland totals 211.65 acres on site and 2.72 acres occur off site within the Cuyamaca Street extension. Non-native grassland is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Non-Native Grassland/Non-Native Vegetation (42200/11000). Non-native grassland–non-native vegetation is similar to non-native grassland but dominated by non-native wattle (*Acacia* spp.) plantings. This vegetation community is not included in Holland (1986) or Oberbauer et al. (2008). This combination of vegetation communities is project specific and is mapped in areas supported by more than 20 percent non-native vegetation within non-native grassland. See descriptions for non-native grassland and non-native vegetation in previously in this section. Non-native grassland/non-native vegetation totals 14.96 acres on site adjacent to Fanita Parkway. Non-native grassland/non-native vegetation is not considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Vernal Pool (44000). Vernal pools are seasonally flooded wetland communities (Oberbauer et al. 2008). Vernal pools are depressions that support distinctive living communities adapted to seasonally dry and wet hydrologic conditions. Vernal pools are associated with two important physical conditions: a subsurface hardpan or claypan that inhibits the downward percolation of water and a topography characterized by a series of low hummocks called mima mounds and low depressions (the vernal pools), which prevent above groundwater runoff. Vernal pools capture and store precipitation on the surface and/or subsurface in low depressions, which prevent above groundwater runoff (Bauder et al. 2009). Water collects in these depressions during the rainy season, and as the rainy season ends and the dry season begins, the water that has collected in these vernal pools gradually evaporates. The chemical composition of the remaining pool water becomes more concentrated as the pool water evaporates, which creates a chemical micro-environmental complex system for unique wetland-dependent vernal pool plant and wildlife communities to develop (Bauder et al. 2009). Vernal pools retain pooled water for approximately 2 weeks after significant rain events. Indicator species for vernal pools include woolly marbles (*Psilocarphus* spp.), toothed calicoflower (*Downingia cuspidata*), and crustaceans. The following criteria differentiate vernal pools from other temporary wetlands: the basin is at least partially vegetated during the normal growing season or is unvegetated due to heavy clay or hardpan soils that do not support plant growth; and the basin contains at least one vernal pool indicator species (Oberbauer et al. 2008).

Vernal pools occur within 0.80 acre on site along the western boundary and in the southern portion of the site and within 0.01 acre off site within the Cuyamaca Street extension. Vernal pools mapped on the project site include features (i.e., natural vernal pools and street ruts) containing both plant and wildlife (i.e., San Diego fairy shrimp and western spadefoot) indicator species. Six vernal pool plant indicator species were observed on site: winged water-starwort (*Callitriche marginata*),

shortseed waterwort (*Elatine brachysperma*), California waterwort (*Elatine californica*), water pygmyweed (*Crassula aquatica*), annual hairgrass (*Deschampsia danthonioides*), and woolly marbles (*Psilocarphus brevissimus*). As a wetlands community, vernal pools are considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018) and potentially by the resource agencies.

Bog and Marsh (50000)

Cismontane Alkali Marsh (52310). Cismontane alkali marsh is a wetland community dominated by low, perennial, herbaceous plants adapted to places where standing water or saturated soils are present for a considerable portion of the year (Oberbauer et al. 2008). High evaporation and low input of freshwater render these marshes somewhat alkaline, especially during the summer. Plant species composition within this community tends to consist of halophytes, plants adapted to grow in saline/salty conditions, such as southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), and certain sedges over the typical cattail-bulrush mix of freshwater marsh.

Cismontane alkali marsh covers 0.40 acre on site within the central portion of the project site east of Sycamore Canyon Road and adjacent to Stathmore Drive. As a wetlands community, cismontane alkali marsh is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018) and by the resource agencies.

Coastal and Valley Freshwater Marsh (52410). Coastal and valley freshwater marsh is a wetland habitat that is permanently flooded by freshwater lacking a significant current (Oberbauer et al. 2008). Because it is permanently flooded by fresh water, there is an accumulation of deep, peaty soils. It typically is dominated by species such as cattail, sedge (*Carex* spp.), yellow nutsedge (*Cyperus esculentus*), and bulrushes (*Schoenoplectus* spp.). Coastal and valley freshwater marsh totals 0.02 acre on site and is located in several areas, primarily west of Santee Lakes Recreation Preserve and west of Sycamore Canyon Road. In addition, 0.12 acre of disturbed coastal and valley freshwater marsh on site occur in two areas, both east of Santee Lakes Recreation Preserve adjacent to Fanita Parkway. As a wetlands community, coastal and valley freshwater marsh is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Riparian and Bottomland Habitat (60000)

Southern Arroyo Willow Riparian Forest (61320). Southern arroyo willow riparian forest is a winter-deciduous riparian forest dominated by broad-leafed trees and arroyo willow. Typically it consists of a moderately tall, closed, or nearly closed canopy, with an understory of shrubby willows (Oberbauer et al. 2008). Southern arroyo willow riparian forest is characterized by the presence of several species besides arroyo willow (*Salix lasiolepis*), including San Diego sagewort (*Artemisia palmeri*), mulefat (*Baccharis salicifolia*), manroot (*Marah macrocarpus*), California sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii* ssp. *fremontii*), Goodding's willow (*Salix gooddingii*), narrowleaf willow (*Salix exigua*), and yellow willow (*Salix lasiandra*)

(Oberbauer et al. 2008). Southern arroyo willow riparian forest occurs in sub-irrigated and frequently overflowed areas along rivers and streams that are perennially wet (Oberbauer et al. 2008).

Approximately 1.54 acres of southern arroyo willow riparian forest occur on site in one area north of Sycamore Canyon Road. On the project site, southern arroyo willow riparian forest is dominated by arroyo willow. As a wetlands community, southern arroyo willow riparian forest is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018) and by the resource agencies.

Southern Sycamore–Alder Riparian Woodland (62400). Southern sycamore–alder riparian woodland is characterized by tall, open, broad-leaved woodland dominated by California sycamore and white alder (*Alnus rhombifolia*) (Oberbauer et al. 2008). The woodland includes scattered trees in shrubby thickets of sclerophyllous and deciduous species. Characteristic species include coast live oak (*Quercus agrifolia*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), and poison oak (*Toxicodendron diversilobum*). Southern sycamore–alder riparian woodland totals 3.23 acres on site. Southern sycamore–alder riparian woodland occurs in three areas, one area in Sycamore Canyon and two areas in drainages that act as tributaries to Sycamore Canyon. As a wetlands community, southern sycamore–alder riparian woodland is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Mulefat Scrub (63310). Mulefat scrub is a depauperate (lacking in numbers or variety of species), tall, herbaceous riparian scrub strongly dominated by mulefat. This early seral community is maintained by frequent flooding. Site factors include intermittent stream channels with fairly coarse substrate and moderate depth to the water table (Oberbauer et al. 2008). This community type is widely scattered along intermittent streams and near larger rivers. Mulefat scrub totals 1.86 acres on site in the western portion of the project site within Sycamore Canyon and in a drainage that acts as a tributary to Sycamore Canyon. As a wetlands community, mulefat scrub is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Southern Willow Scrub 63220). Southern willow scrub is a dense, broad-leafed, winter-deciduous riparian thicket dominated by several willow species, with scattered emergent Fremont cottonwood and California sycamore. This community was formerly extensive along the major rivers of coastal Southern California, but is now much reduced (Oberbauer et al. 2008).

Approximately 0.86 acre of southern willow scrub occurs on site in several small patches, with the largest occurrence mapped west of Santee Lakes Recreation Preserve and adjacent to Sycamore Canyon Road. This vegetation community primarily occurs within drainages. In addition, 0.48 acre of disturbed southern willow scrub on site occurs in three small patches, including east and west of Santee Lakes Recreation Preserve. As a wetland community, southern willow scrub is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Non-Vegetated Channel or Floodway (64200). According to Oberbauer et al. (2008), non-vegetated channel is the sandy, gravelly, or rocky fringe of waterways or flood channels that is unvegetated on a relatively permanent basis. Vegetation may be present but is usually less than 10 percent total cover and grows on the outer edge of the channel. There are 9.82 acres of non-vegetated channel or floodway on site and an additional 0.05 acre off site. Non-vegetated channel is considered a jurisdictional resource and a sensitive community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Arundo-Dominated Riparian (65100). Arundo-dominated riparian vegetation community is composed of monotypic or nearly monotypic stands of giant reed, which is a non-native species that is fairly widespread in Southern California. Typically, it occurs on moist soils and in streambeds and may be related directly to soil disturbance or the introduction of propagates by grading or flooding. Mapped occurrences may include surrounding native trees. Giant reed often occupies jurisdictional wetlands.

Approximately 1.93 acres of arundo-dominated riparian occurs in several small patches on site, including west of Santee Lakes Recreation Preserve adjacent to Pebble Beach Drive, and along the central western boundary of the project site north of Sycamore Canyon Road. Since this is a non-native vegetation community, only the portion of arundo-dominated riparian (1.40 acres) associated with a drainage feature and regulated by the California Department of Fish and Wildlife (CDFW) is considered sensitive.

Woodland (70000)

Coast Live Oak Woodland (71160). Coast live oak woodland is dominated by a single evergreen species: coast live oak with a canopy height reaching approximately 33 to 82 feet (Oberbauer et al. 2008). The shrub layer is poorly developed, but may include toyon (*Heteromeles arbutifolia*), gooseberry (*Ribes* spp.), or laurel sumac. Other shrub species include chamise, California buckwheat, and chaparral yucca (*Hesperoyucca whipplei*). The herb component is continuous, dominated by a variety of introduced species (Oberbauer et al. 2008).

On the project site, coast live oak woodland is dominated by coast live oak and comprises 29.63 acres on site. Coast live oak woodland occurs primarily in several patches along the northwestern boundary of the project site. Coast live oak woodland is considered a sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018), and a portion of this community (25.08 acres) is regulated by CDFW.

Floral Diversity

A total of 420 species of plants were observed within the Fanita Ranch project site during the 2004 and 2016 surveys conducted by biologists (Appendix D). There are 78 families represented on site, with nearly half of the species coming from the Asteraceae, Poaceae, Boraginaceae, and Fabaceae families. Species composition includes 333 (79 percent) native species and 87 (21 percent) non-

native species occurring on site. A cumulative list of plant species observed during these surveys is provided in Appendix D.

On the project site, 14 special-status plant species were observed, 4 of which are MSCP Covered Species—San Diego goldenstar (*Bloomeria clevelandii*), San Diego barrel cactus (*Ferocactus viridescens*), variegated dudleya (*Dudleya variegata*), and willowy monardella. Details on species coverage by the Draft Santee MSCP Subarea Plan are addressed in Section 4.3.2.3. Sensitive and special-status plant species that have been observed or have a moderate potential to occur on the project site or off-site improvement areas are described in Section 4.3.1.4.

Wildlife Resources

The project site supports habitat for common upland and riparian species. Chaparral, coastal scrub, woodland, riparian, and non-native habitats (e.g., non-native vegetation and non-native grassland) on the project site provide foraging and nesting habitat for migratory and resident birds and other wildlife species. Rock outcroppings, chaparral, coastal scrub, grassland, and woodlands on the project site provide cover and foraging opportunities for wildlife species, including reptiles and mammals.

There were 274 species observed on the project site during the 2014, 2015, 2016, and 2017 surveys. Of the total species observed, 41 (15 percent) are considered special status (9 of which are MSCP Covered Species). Species observed on the project site were recorded during focused surveys, habitat assessments, vegetation mapping, and sensitive plant surveys. A cumulative list of wildlife species observed during these surveys is provided in Appendix D. Species richness on the project site is moderate due to the property size, amount of undeveloped land, and the number of native upland habitats. Species richness is generally increased with the presence of more habitat types and ecotones. The project site is dominated by three habitat types: coastal sage scrub communities compose 55 percent, grassland communities compose 15 percent, and granitic southern mixed chaparral compose 22 percent of the project site. Although species richness is moderate, the number of species and the wildlife population levels (i.e., number of individuals) is typical for undeveloped areas in this region, particularly those areas that support multiple upland habitat types. The project site supports numerous special-status wildlife species, which are addressed in Section 4.3.5.1.

Birds

A total of 137 species of birds were observed on the project site or immediately off site during the surveys conducted from 2003 to 2017. Some of the species observed include rufous-crowned sparrow (*Aimophila ruficeps*), California quail (*Callipepla californica*), Anna's hummingbird (*Calypte anna*), California (western) scrub-jay (*Aphelocoma californica*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), red-tailed hawk (*Buteo jamaicensis*), and northern mockingbird (*Mimus polyglottos*).

A total of 22 special-status birds were observed: Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), grasshopper sparrow

(*Ammodramus savannarum*), oak titmouse (*Baeolophus inornatus*), coastal cactus wren, northern harrier (*Circus cyaneus*), willow flycatcher (*Empidonax traillii*), merlin (*Falco columbarius*), American peregrine falcon (*Falco peregrinus anatum*), yellow-breasted chat (*Icteria virens*), loggerhead shrike (*Lanius ludovicianus*), osprey (*Pandion haliaetus*), coastal California gnatcatcher, rufous hummingbird (*Selasphorus rufus*), yellow warbler (*Setophaga petechia*), Brewer's sparrow (*Spizella breweri*), golden eagle (*Aquila chrysaetos*), Bell's sage sparrow (*Artemisiospiza belli belli*), long-eared owl (*Asio otus*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), and least Bell's vireo.

Three of the bird species observed are MSCP Covered Species: coastal California gnatcatcher, coastal cactus wren, and least Bell's vireo.

Reptiles and Amphibians

A total of 31 species of reptiles and amphibians were observed on the project site during the various surveys conducted for the proposed project. Some of the more common species observed on site include western fence lizard (*Sceloporus occidentalis*), common side-blotched lizard (*Uta stansburiana*), western skink (*Plestiodon skiltonianus*), striped racer (*Coluber lateralis*), gophersnake (*Pituophis catenifer*), western rattlesnake (*Crotalus oreganus*), and southern alligator lizard (*Elgaria multicarinata*).

Six special-status amphibians and reptiles were observed: western spadefoot, red diamondback rattlesnake (*Crotalus ruber*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), two-striped gartersnake (*Thamnophis hammondii*), and Blainville's horned lizard (*Phrynosoma blainvillii*).

Three reptile and amphibian species observed are MSCP Covered Species: Belding's orange-throated whiptail, Blainville's horned lizard, and western spadefoot.

Two non-native and invasive species, African clawed frog (*Xenopus laevis*) and American bullfrog (*Lithobates catesbeianus*), were detected during previous surveys conducted in 1997, 2005, and 2006. African clawed frog occurred in two vernal pools (30 and 44) in the future planned Habitat Preserve in the western portion of the site and in one street rut (124) within the fuel modification zone (FMZ) street in the eastern portion of the site. The vernal pools (30 and 44) are approximately 700 feet and 880 feet, respectively, northeast of Sycamore Canyon Creek and therefore it is likely that this species originated from Sycamore Canyon Creek. The non-vegetated channel approximately 300 feet southeast of the street rut (124) is likely the originating stream for this species. American bullfrog locations were not mapped; however, it is likely that this species is using Sycamore Canyon Creek and potentially seasonal basin features on the project site.

Mammals

A total of 37 species of mammals were detected on the project site by direct observation or sign. Common species on site include, brush rabbit (*Sylvilagus bachmani*), desert wood rat (*Neotoma lepida*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus [Otospermophilus] beecheyi*), coyote (*Canis latrans*), and mule deer (*Odocoileus hemionus*). The special-status San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) was also commonly observed on the project site.

A total of 10 special-status mammals were observed: San Diego black-tailed jackrabbit, San Diego desert woodrat (*Neotoma lepida intermedia*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western red bat (*Lasiurus blossevillii*), western yellow bat (*Lasiurus xanthinus*), western small-footed myotis (*Myotis ciliolabrum*), Yuma myotis (*Myotis yumanensis*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*).

Invertebrates

A total of 69 species of invertebrates, the majority of which were butterflies, were identified on the project site by direct observation. Common species on site include Behr's metalmark (*Apodemia mormo virgulti*), common California ringlet (*Coenonympha tullia*), Pacific Sara orangetip (*Anthocharis sara sara*), and checkered white (*Pontia protodice*). Three special-status invertebrates were observed: San Diego fairy shrimp, Quino checkerspot butterfly, and Hermes copper butterfly. All three species are Draft Santee MSCP Subarea Plan Covered Species.

4.3.1.3 Jurisdictional Aquatic Resources

Jurisdictional aquatic resources include wetlands and non-wetland waters under the jurisdiction of the U.S. Army Corps of Engineers (ACOE) and Regional Water Quality Control Board (RWQCB) and streambeds and riparian habitat under the jurisdiction of the CDFW. Jurisdictional aquatic resources on the project site (including off-site Cuyamaca Street and Magnolia Avenue extension areas) total 44.97 acres, comprising 5.16 acres of ACOE/RWQCB/CDFW-jurisdictional wetlands/riparian habitat, 9.88 acres of ACOE/RWQCB/CDFW-jurisdictional non-wetland waters of the United States/streambed, 0.02 acre of ACOE/RWQCB/ CDFW-jurisdictional non-wetland waters of the United States/riparian habitat, and 29.91 acres of CDFW-only jurisdictional riparian habitat. Acreages for jurisdictional resources are summarized in Table 4.3-2 and represented on Figure 4.3-1, Jurisdictional Aquatic Resources.

Table 4.3-2. Jurisdictional Aquatic Resources on the Project Site and Off-Site Improvement Areas

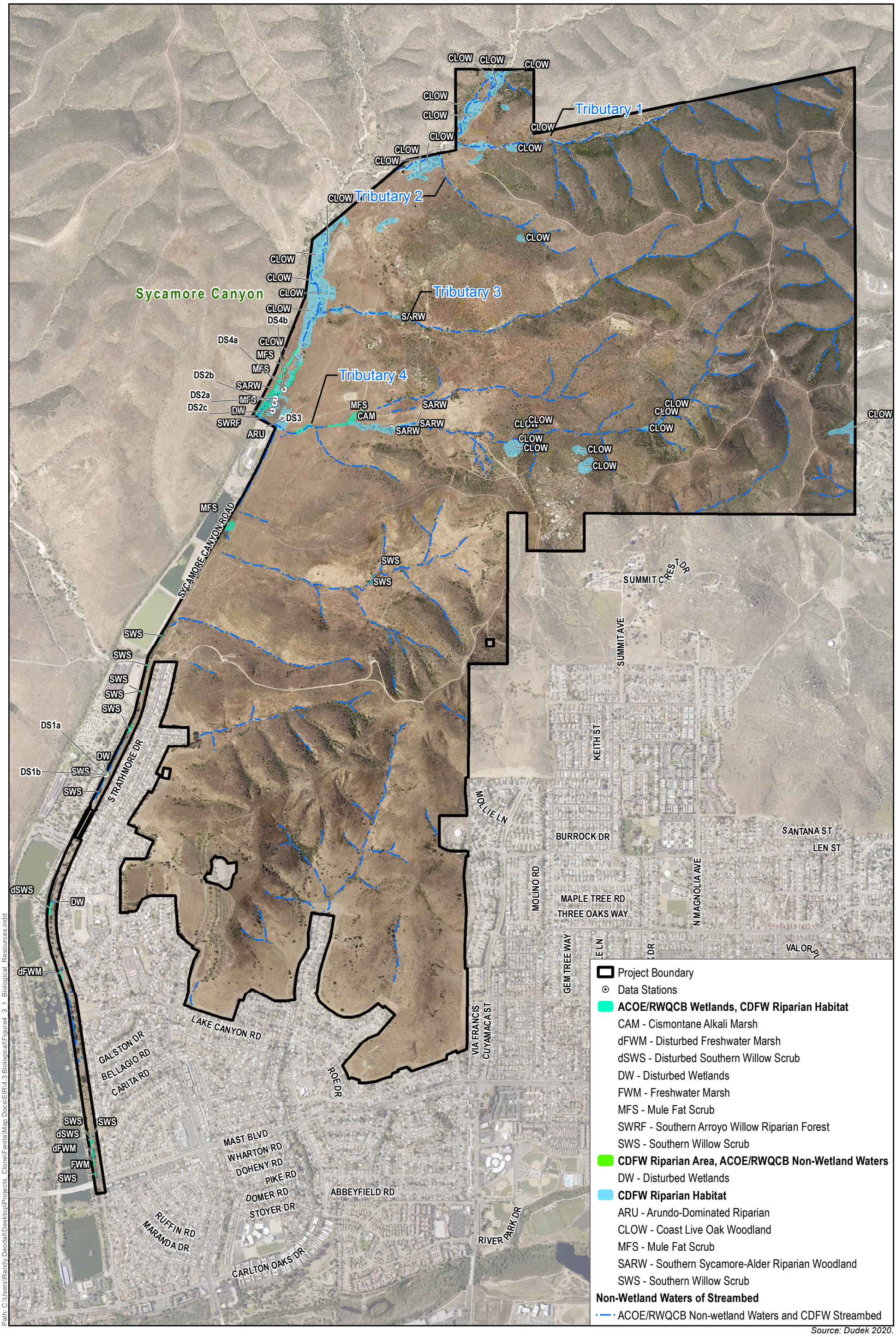
Wetlands Vegetation Community	On Site (acres)	Off Site (acres)	Total Acreage
ACOE/RWQCB Wetlands and CDFW Riparian Areas			
Disturbed Wetland	0.07	—	0.07
Cismontane Alkali Marsh	0.40	—	0.40
Coastal and Valley Freshwater Marsh	0.02	—	0.02
Coastal and Valley Freshwater Marsh (Disturbed)	0.12	—	0.12
Southern Arroyo Willow Riparian Forest	1.54	—	1.54
Mulefat Scrub	1.73	—	1.73
Southern Willow Scrub	0.79	—	0.79
Southern Willow Scrub (Disturbed)	0.48	—	0.48
ACOE/RWQCB Wetlands and CDFW Riparian Areas Subtotal[1]	*5.16*	—	*5.16*
ACOE/RWQCB Non-Wetland Waters and CDFW Streambed			
Non-Vegetated Channel or Floodway	9.82	0.05	9.88
ACOE/RWQCB Non-Wetland Waters and CDFW Riparian Habitat			
Disturbed Wetlands	0.02	—	0.02
CDFW-Only Riparian Habitat			
Southern Sycamore–Alder Riparian Woodland	3.23	—	3.23
Mulefat Scrub	0.13	—	0.13
Southern Willow Scrub	0.07	—	0.07
Arundo-Dominated Riparian	1.40	—	1.40
Coast Live Oak Woodland	25.08	—	25.08
CDFW-Only Riparian Habitat Subtotal[1]	*29.91*	—	*29.91*
Total Jurisdictional Area[1]	**44.91**	**0.05**	**44.97**

Source: Appendix D.

Notes: ACOE = U.S. Army Corps of Engineers; CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board

[1] Totals may not sum due to rounding and are pending agency review.

Several unvegetated channels are located throughout the project site. They total 9.88 acres on the project site and off-site improvement areas and are considered waters of the United States under the jurisdiction of ACOE and waters of the State of California under the jurisdiction of the RWQCB as non-wetland waters and under CDFW as streambeds. Although there is a main drainage, Sycamore Canyon, that runs north–south along the western border of the project site, most of the on-site drainages flow east–west. The drainages on site eventually flow into the San Diego River, which runs west less than 0.5 mile south of the project site. The San Diego River flows into the Pacific Ocean, a navigable water of the United States. These on-site drainages do not contain hydrophytic vegetation or hydric soils; however, they do exhibit evidence of hydrology and a clear bed and bank. These drainages are mapped on Figure 4.3-1 as line features.



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Source: Dudek 2020.

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Figure 4.3-1

Jurisdictional Aquatic Resources

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Approximately 0.02 acre of CDFW-jurisdictional disturbed wetland is associated with one of the unvegetated channels and is considered ACOE and RWQCB-jurisdictional non-wetland waters (lacked hydric soils to make it an ACOE and RWQCB-jurisdictional wetland) and CDFW-jurisdictional riparian habitat.

In addition, 5.16 acres of ACOE, RWQCB, and CDFW-jurisdictional wetlands/riparian habitat, including cismontane alkali marsh, coastal and valley freshwater marsh (including disturbed), southern willow scrub (including disturbed), disturbed wetlands, mulefat scrub, and southern arroyo willow riparian forest, are located primarily in the western portion of the project site. There are also 29.91 acres of CDFW-only riparian habitat that have hydric vegetation but lack hydric soils and/or suitable hydrology to be under the jurisdiction of the ACOE and RWQCB.

4.3.1.4 Sensitive Biological Resources

Sensitive resources are defined as (1) habitat areas of vegetation communities that are unique, are of relatively limited distribution, or are of particular values to wildlife; and (2) species (plants and wildlife) that have been given special recognition by federal or state agencies, or are included in regional plans due to limited, declining, or threatened populations.

Sensitivity Designations

Federal listing of endangered and threatened wildlife and plants is administered by the U.S. Fish and Wildlife Service (USFWS). The USFWS also recognizes species of special concern that are candidates for listing. Before a plant or wildlife species can receive protection under the federal Endangered Species Act (FESA), it must first be placed on the federal list. The program follows a strict legal process to determine whether to list a species. An "endangered" species is one that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is one that is likely to become endangered in the foreseeable future. The USFWS also maintains a list of plant and animals native to the United States that are species of special concern for possible addition to the federal list but that are not regulated.

CDFW's implementation of the California Endangered Species Act (CESA) has created a program that is similar in structure to, but different in detail from, the USFWS program implementing FESA. The CDFW maintains a list of designated endangered, threatened, and rare plant and wildlife species. Listed species are either designated under the Native Plant Protection Act or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFW affords interim protection to candidate species while they are being reviewed by the Fish and Game Commission. The CDFW also maintains a list of "Species of Special Concern," most of which are species whose breeding populations in California may face extirpation. Although these species have no legal status, the CDFW recommends consideration of them during analysis of the impacts of

proposed projects to protect declining populations and avoid the need to list them as endangered in the future. CESA also protects plant species, which FESA does not.

Under the provisions of Section 15380(d) of CEQA, the lead agency, in making a determination of significance, must treat rare non-listed plant and wildlife species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFW considers species on Lists 1A, 1B, or 2 of the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (CNPS 2020) as qualifying for consideration under this CEQA provision. Species on the California Rare Plant Rank (CRPR) List 3 or 4 may, but generally do not, qualify for protection under this provision. Species on CRPR List 1A are "presumed extinct in California." Species on List 1B are "rare or endangered in California and elsewhere." Species on List 2 are "rare or endangered in California and are more common elsewhere." Species on Lists 3 and 4 are those that require more information to determine status and plants of limited distribution.

Sensitive and/or Regulated Habitats

Sensitive habitats are those that are considered rare or declining in the region or support sensitive plant and/or wildlife species. In particular, the Draft Santee MSCP Subarea Plan and local and regional wildlife agencies (i.e., CDFW and USFWS) consider the following habitats sensitive. Impacts to these communities require specific mitigation in order to comply with the Draft Santee MSCP Subarea Plan and other regional conservation goals. Regulated habitats are those under the jurisdiction of the ACOE, CDFW, and/or RWQCB. These habitats would be considered to be sensitive for CEQA purposes. The sensitive habitats found on the project site include coast live oak woodland, valley needlegrass grassland (including disturbed), arundo-dominated riparian, disturbed wetlands, mulefat scrub, coastal and valley freshwater marsh (including disturbed), cismontane alkali marsh, non-vegetated channel or floodway, southern sycamore–alder riparian woodland, southern arroyo willow riparian forest, southern willow scrub (including disturbed), vernal pool, Diegan coastal sage scrub (including disturbed, grassland associations, and fire recovered), Diegan coastal sage scrub–baccharis-dominated, granitic southern mixed chaparral, and non-native grassland.

Sensitive Plant Species

Special-status plant surveys were conducted to determine the presence or absence of plant species that are considered endangered, rare, or threatened under CEQA Guidelines, Section 15380 (14 CCR 15380). Focused sensitive plant surveys were conducted during the flowering seasons of species with the potential to occur on the project site. Through discussions between the City and wildlife agencies, it was determined that the 2004 plant surveys were still useful for analysis purposes because they occurred right after the Cedar fire, which burned off years of debris, allowing the ground to be the most visible it could be; because appropriate rainfall during the winter following the fire allowed for good growth of these species; and because periods of subsequent growth of non-native annual grasses combined with drought left the project site in a current condition that was

densely covered by a debris layer that created poor survey visibility. It was determined that follow-up surveys would likely result in fewer detections so the most conservative existing dataset was used for analysis. Although comprehensive surveys for special-status plants were not conducted in 2016 (surveys focused only on willowy monardella where observations had been previously recorded), spot checking previously detected locations confirmed continued presence of populations.

A total of 14 special-status plant species were observed on the project site. Of this total, six special-status plant species were anecdotally observed during surveys conducted in 2016 and 2017. The special-status plant populations observed within project site are summarized in Table 4.3-3 and presented on Figures 4-1a through 4-1af in Section 4.1, Vegetation Communities and Land Cover Types, in Appendix D.

Table 4.3-3. Special-Status Plants on the Project Site and Off-Site Improvement Areas

Plant Species	Status (Federal/State/CNPS/ Draft Santee MSCP Subarea Plan)	On Site		Off Site[1]	Total
		Pre-2016	2016/2017	Pre-2016	
San Diego Sagewort (*Artemisia palmeri*)	None/None/4.2/None	220	—	—	220
Coulter's Saltbush (*Atriplex coulteri*)	None/None/1B.2/None	65	—	—	65
San Diego Goldenstar (*Bloomeria clevelandii*)	None/None/1B.1/ Covered	17,628	690	—	18,318
Small-flowered Morning-glory (*Convolvulus simulans*)	None/None/4.2/None	13	—	—	13
Variegated Dudleya (*Dudleya variegata*)	None/None/1B.2/ Covered NE	8,937	—	5	8,942
San Diego Barrel Cactus (*Ferocactus viridescens*)	None/None/2B.1/ Covered	4,846	10	—	4,856
Palmer's Grapplinghook (*Harpagonella palmeri*)	None/None/4.2/None	440	10	10	460
Graceful Tarplant (*Holocarpha virgata* ssp. *elongata*)	None/None/4.2/None	6	—	—	6
Willowy Monardella (*Monardella viminea*)	FE/CE/1B.1/Covered	1,588	34	—	1,622
California Adder's-tongue (*Ophioglossum californicum*)	None/None/4.2/None	250	—	—	250
Chaparral Rein Orchid (*Piperia cooperi*)	None/None/4.2/None	1	—	—	1
Engelmann Oak (*Quercus engelmannii*)	None/None/4.2/None	4	1	—	5
Ashy Spike-Moss (*Selaginella cinerascens*)	None/None/4.1/None	*Not mapped due to low ranking and prevalence on the project site.*			
San Diego County Viguiera (*Viguiera laciniata*)	None/None/4.2/None	2,046	—	5	2,051

Source: Appendix D.
Notes: MSCP = Multiple Species Conservation Program; NE = narrow endemic.
[1] No special-status plants were surveyed within the off-site areas in 2016/2017.
Status Legend
Federal
FE: Federally listed as endangered.
State
CE: State-listed as endangered.
CRPR: California Rare Plant Rank (previously known as the CNPS List)
1B: Plants rare, threatened, or endangered in California and elsewhere
2B: Plants rare, threatened, or endangered in California, but more common elsewhere
4: Plants of limited distribution – a watch list
Threat Rank
.1 – Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
.2 – Fairly threatened in California (20 percent–80 percent occurrences threatened/moderate degree and immediacy of threat)
Draft Santee MSCP Subarea Plan (City of Santee 2018)
Covered: Draft Santee MSCP Subarea Plan Covered Species

Sensitive Wildlife Species

Focused surveys for various wildlife species were conducted according to the methods presented in Section 4.3.1.1 (Dudek 1997, 2005, 2006, 2007, as cited in Appendix D). A total of 41 special-status species were observed during surveys conducted in 2016 and 2017 and during previous surveys (refer to Figures 4-1a through 4-1af in Section 4.1 in Appendix D). Those species observed on the project site are discussed in detail in Appendix D. There are additional species with a moderate potential to occur that were not observed on the project site and are described in Appendix D. A summary of special-status wildlife species observed or detected during surveys is provided in Table 4.3-4.

Table 4.3-4. Special-Status Wildlife Species Observed on the Project Site and Off-Site Improvement Areas

Wildlife Species	Status (Federal/State/ Draft Santee MSCP Subarea Plan/Other)	On-Site Recordings[1]		Off-Site Recordings[1]	
		Pre-2016	2016/2017	Pre-2016	2016/2017
Amphibians and Reptiles					
Western spadefoot (*Spea hammondii*)	None/SSC/Covered/None	38 features[2]		–	–
San Diegan Tiger Whiptail[3] (*Aspidoscelis tigris stejnegeri*)	None/SSC/None/None	2	–	–	–
Red Diamondback Rattlesnake[3] (*Crotalus ruber*)	None/SSC/None/None	9	1	–	–
Blainville's Horned Lizard[3] (*Phrynosoma blainvillii*)	None/None/Covered/None	24	3	–	–
Belding's Orange-throated Whiptail[3] (*Aspidoscelis hyperythra beldingi*)	None/WL/Covered/None	47	6	1	–

Table 4.3-4. Special-Status Wildlife Species Observed on the Project Site and Off-Site Improvement Areas

Wildlife Species	Status (Federal/State/ Draft Santee MSCP Subarea Plan/Other)	On-Site Recordings[1]		Off-Site Recordings[1]	
		Pre-2016	2016/2017	Pre-2016	2016/2017
Two-striped Garter Snake (*Thamnophis hammondii*)	None/SSC/None/None	1	–	–	–
Birds					
Cooper's hawk[3] (*Accipiter cooperii*)	None/WL/None/None	11	4	1	–
Southern California rufous-crowned[3] (*Aimophila ruficeps canescens*)	None/WL/None/None	126	28	1	–
Grasshopper sparrow[3] (*Ammodramus savannarum*)	None/SSC/None/None	68	19	–	–
Golden Eagle (*Aquila chrysaetos*)	BCC/FP, WL/None/None	1	–	–	–
Bell's sage sparrow[3] (*Artemisiospiza belli belli*)	BCC/WL/None/None	15	–	–	–
Long-eared owl (*Asio otus*)	None/SSC/None/None	1	–	–	–
Oak titmouse[3] (*Baeolophus inornatus*)	BCC/None/None/None	–	3	–	–
Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	BCC/SSC/Covered/None	N/A[4]	5 clusters[4]	–	–
Northern harrier (*Circus cyaneus*)	None/SSC/None/None	6	–	–	–
Willow flycatcher (*Empidonax traillii*)	BCC/SE/None/None	–	1	–	–
Merlin (*Falco columbarius*)	None/WL/None/None	1	–	–	–
American peregrine falcon (*Falco peregrinus anatum*)	BCC/FP/None/None	1	2	–	–
Yellow-breasted chat (*Icteria virens*)	None/SSC/None/None	2	1	–	–
Loggerhead shrike[3] (*Lanius ludovicianus*)	BCC/SSC/None/None	8	–	–	–
Osprey (*Pandion haliaetus*)	None/WL/None/None	–	2	–	–
Coastal California gnatcatcher (*Polioptila californica californica*)	FT/SSC/Covered/None	4 pairs, 1 individual[5]	39 Use Areas[6]	–	–
Rufous hummingbird (*Selasphorus rufus*)	BCC/None/None/None	–	1	–	–
Brewer's Sparrow (*Spizella breweri*)	BCC/None/None/None	Not mapped due to low ranking and prevalence on the project site.			
Yellow warbler (*Setophaga petechial*)	BCC/SSC/None/None	3	3	–	–

Table 4.3-4. Special-Status Wildlife Species Observed on the Project Site and Off-Site Improvement Areas

Wildlife Species	Status (Federal/State/ Draft Santee MSCP Subarea Plan/Other)	On-Site Recordings[1]		Off-Site Recordings[1]	
		Pre-2016	2016/2017	Pre-2016	2016/2017
Least Bell's Vireo (*Vireo bellii pusillus*)	FE/SE/Covered/None	1	2	–	–
White-tailed kite (*Elanus leucurus*)	None/FP/None/None	4	–	–	–
California Horned Lark[3] (*Eremophila alpestris actia*)	None/WL/None/None	*Not mapped due to low ranking and prevalence on the project site.*			
Mammals					
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	None/SSC/None/None	*Not mapped due to low ranking and prevalence on the project site.*			
Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)	None/SSC/None/None				
San Diego Desert Woodrat (*Neotoma lepida intermedia*)	None/SSC/None/None				
Pallid Bat (*Antrozous pallidus*)	None/SSC/None/WBWG: H	*Acoustically detected. See Section 3.5.2.3 in Appendix D for discussion on focused bat survey results.*			
Townsend's Big-eared Bat (*Corynorhinus townsendii*)	None/SSC/None/WBWG: H				
Western Red Bat (*Lasiurus blossevillii*)	None/SSC/None/WBWG: H				
Western Yellow Bat (*Lasiurus xanthinus*)	None/SSC/None/WBWG: H				
Western Small-footed Myotis (*Myotis ciliolabrum*)	None/None/None/WBWG: M				
Yuma Myotis (*Myotis yumanensis*)	None/None/None/ WBWG: LM				
Pocketed Free-tailed Bat (*Nyctinomops femorosaccus*)	None/SSC/None/WBWG: M				
Invertebrates					
San Diego Fairy Shrimp (Branchinecta sandiegonensis)	FE/None/Covered/None	71 features[2]		1 feature[2]	
Quino checkerspot butterfly (Euphydryas editha quino)[7]	FE/None/Covered/None	1	–	–	–
Hermes copper (Lycaena hermes)[7]	FC/None/Covered/None	3	–	–	–

Source: Appendix D.

Notes: MSCP = Multiple Species Conservation Program

[1] Species counts are based on recordings during surveys. Totals are for individuals unless otherwise noted.

[2] Based on occupied features rather than number of records/individuals. Number of occupied features for western spadefoot includes those recorded in 2004, 2005, 2016, and 2017. Number of occupied features for San Diego fairy shrimp includes those

with San Diego fairy shrimp present as well as features with immature or female brachiopods that could not be identified to species and is based on the protocol-level survey results from 2004, 2004/2005, and 2015/2016.

[3] For some widely distributed and more common species, the numbers do not represent the actual population, which may be significantly higher in population and distribution.

[4] The habitat for historical occurrences of coastal cactus wren burned and is in the process of recovery. There were five clusters of coastal cactus wren observations observed during surveys in 2017. Clusters rather than individual records were considered for impacts given the localized groups that this species occurs in.

[5] Coastal California Gnatcatcher total based on results in Appendix D during 2005 focused surveys.

[6] Based on coastal California gnatcatcher Use Areas documented during 2016 focused surveys.

[7] Data includes historical occurrences; however, 2016 focused surveys were negative.

Status Legend

FE: Federally Endangered

FT: Federally Threatened

FC: Federal Candidate

BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern

SSC: California Species of Special Concern

FP: California Fully Protected Species

WL: California Watch List Species

SE: State Endangered

ST: State Threatened

Draft Santee MSCP Subarea Plan (City of Santee 2018)

Covered: Draft Santee MSCP Subarea Plan Covered Species

WBWG: Western Bat Working Group

H: High

HM: High-Medium

M: Medium

LM: Low-Medium

L: Low

4.3.1.5 Wildlife Corridors and Habitat Linkages

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 in several ways: (1) they ensure continual exchange of genes between populations, which helps maintain genetic diversity; (2) they provide access to adjacent habitat areas representing additional territory for foraging and mating; (3) they allow for a greater carrying capacity; and (4) they provide routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes (i.e., the rescue effect).

Habitat linkages are patches of natural habitat that join two larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. 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 entire project site currently functions as a habitat block with no distinct wildlife corridors or linkages. Wildlife crisscross up and down slopes and use existing trails, ridges, and valleys throughout the project site as shown on Figure 4.3-2, Sample Game Trails. This figure depicts

examples across the project site where game trails crisscross up and down slope. Since the project site is adjacent to both Goodan Ranch/Sycamore Canyon County Preserve and Marine Corps Air Station (MCAS) Miramar, which are large patches of natural open space that provide avenues for the immigration and emigration of wildlife, the purpose of the wildlife movement study was to assess the degree to which the project site functions as a regional wildlife movement corridor and to evaluate wildlife movement on the project site and off-site lands adjacent to the proposed project. See Section 4.5.4 in Appendix D for details on the results of the wildlife movement camera study.

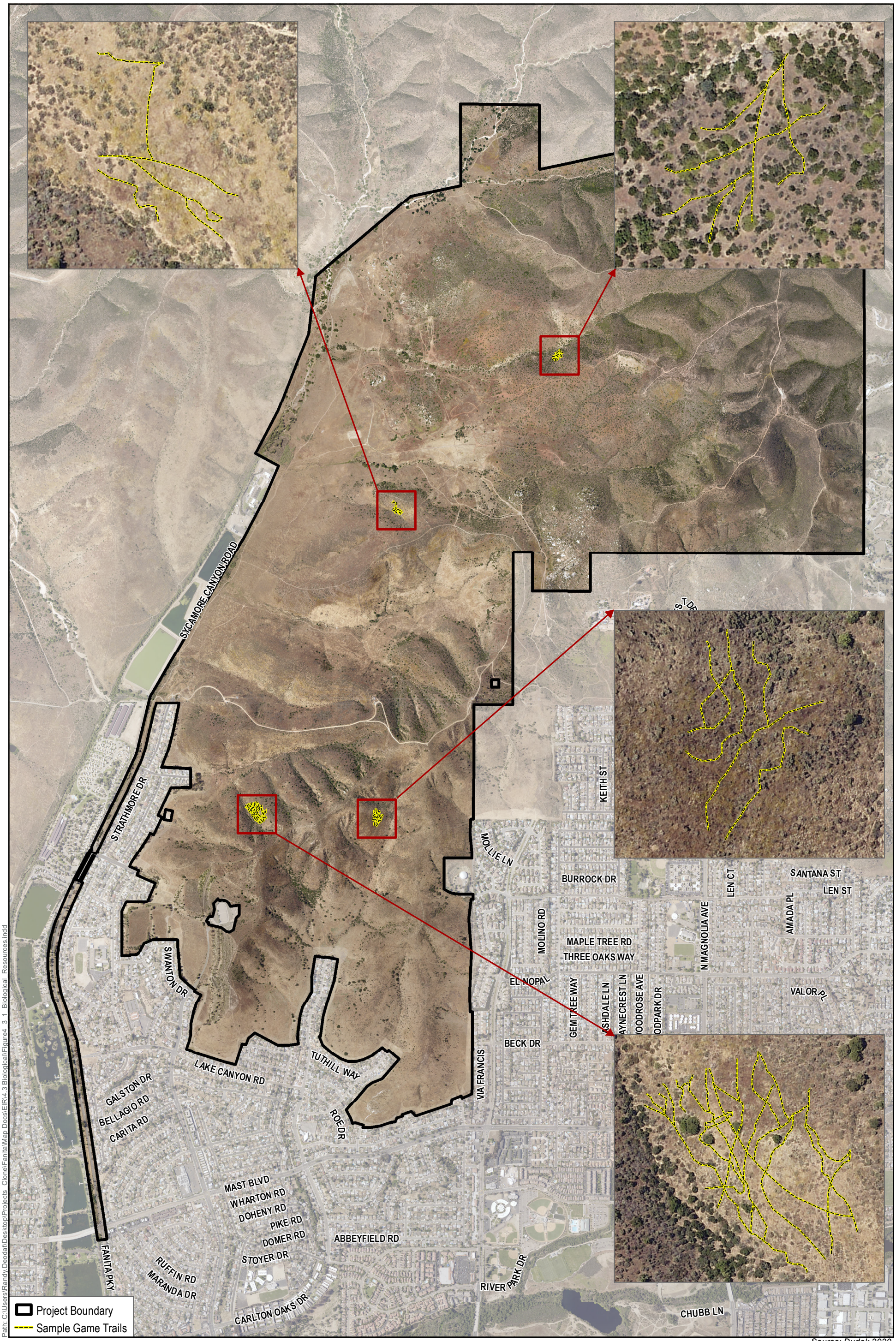
4.3.2 Regulatory Framework

4.3.2.1 Federal

Endangered Species Act

FESA of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration, and National Marine Fisheries Service (NMFS). This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. As part of this regulatory act, FESA provides for designation of Critical Habitat, defined in FESA Section 3(5)(A) as specific areas within the geographical range occupied by a species where physical or biological features "essential to the conservation of the species" are found and that "may require special management considerations or protection." Critical Habitat may also include areas outside the current geographical area occupied by the species that are nonetheless "essential for the conservation of the species." Under provisions of Section 9(a)(1)(B) of FESA, it is unlawful to "take" any listed species. "Take" is defined in Section 3(19) of FESA as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

Section 7(a)(2) of FESA directs federal agencies to consult with the USFWS for any actions they authorize, fund, or carry out that may affect listed species or federally designated Critical Habitat. Consultation begins when the federal agency submits a written request for initiation to the USFWS or NMFS, along with the agency's Biological Assessment of its proposed action (if necessary), and USFWS or NMFS accepts that sufficient information has been provided to initiate consultation. If the USFWS or NMFS concludes that the action is not likely to adversely affect a listed species, the action may be conducted without further review under FESA. Otherwise, the USFWS or NMFS must prepare a written Biological Opinion describing how the agency's action will affect the listed species and its Critical Habitat.



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Source: Dudek 2020.

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Figure 4.3-2

Sample Game Trails

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In 1982, FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCPs) pursuant to Section 10(a) of FESA. Upon development of an HCP, the USFWS can issue Incidental Take Permits for listed species where the HCP specifies, at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the ACOE regulates the discharge of dredged and/or fill material into "waters of the United States." The term "wetlands" (a subset of waters) is defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR 328.3[b]). In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark" (33 CFR 328.3[e]).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the Migratory Bird Treaty Act, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). In December 2017, Department of the Interior Principal Deputy Solicitor Jorjani issued a memorandum (M-37050) that interprets the Migratory Bird Treaty Act's "take" prohibition to apply only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs. Unintentional or accidental take is not prohibited (DOI 2017). Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with the USFWS to develop a memorandum of understanding. The USFWS reviews actions that might affect these species.

Bald and Golden Eagle Protection Act

Bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are federally protected under the Bald and Golden Eagle Protection Act, which was passed in 1940 to protect bald eagles and amended in 1962 to include golden eagles (16 USC 668 et seq.). This act prohibits the take, possession, sale, purchase, barter, offer to sell or purchase, export or import, or transport of bald eagles and golden eagles or their parts, eggs, or nests without a permit issued by the

USFWS. The definition of "take" includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. The definition of "disturb" has been further clarified by regulation as follows: "Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior" (50 CFR, Part 22.3).

The Bald and Golden Eagle Protection Act prohibits any form of possession or taking of both eagle species, and the statute imposes criminal and civil sanctions and an enhanced penalty provision for subsequent offenses. Further, the Bald and Golden Eagle Protection Act provides for the forfeiture of anything used to acquire eagles in violation of the statute. The statute exempts from its prohibitions on possession the use of eagles or eagle parts for exhibition, scientific, or Native American religious uses.

4.3.2.2 State

California Endangered Species Act

CDFW administers CESA (California Fish and Game Code, Section 2050 et seq.), which prohibits the "take" of plant and wildlife species designated by the Fish and Game Commission as endangered, candidate, or threatened in the State of California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Sections 2080 through 2085 address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (California Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

Section 2081(b) and (c) of the California Fish and Game Code authorizes take of endangered, threatened, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. In certain circumstances, Section 2080.1 of CESA allows the CDFW to adopt a federal incidental take statement or a Section 10(a) permit as its own based on its findings that the federal permit adequately protects the species and is consistent with state law. A Section 2081(b) permit may not authorize the take of "fully protected" species, "specifically protected mammal" species, and "specified birds" (California Fish and Game Code, Sections 3505, 3511, 4700, 5050, 5515, and 5517). If a project is planned in an area where a fully protected species, specified mammal species, or a specified bird occurs, an applicant must design the project to avoid take.

Natural Community Conservation Planning Act

In 1991, California's Natural Community Conservation Planning Act (NCCPA) (California Fish and Game Code, Section 2800 et seq.) was enacted to implement broad-based planning that balances appropriate development and growth with conservation of wildlife and habitat. Pursuant to the NCCPA, local, state, and federal agencies are encouraged to prepare Natural Community Conservation Plans (NCCPs) to provide comprehensive management and conservation of multiple species and their habitats under a single plan, rather than through preparation of numerous individual plans on a project-by-project basis. The NCCPA is broader in its orientation and objectives than are CESA and FESA. Additionally, preparation of an NCCP is a voluntary action. The primary objective of the NCCP program is to conserve natural communities at the ecosystem scale while accommodating compatible land use. To be approved by the CDFW, an NCCP must provide for the conservation of species and protection and management of their habitat and natural communities in the plan area in perpetuity.

The 1991 NCCPA was repealed and replaced with a substantially revised and expanded NCCPA in 2002. While the revised NCCPA established new standards and guidance on many facets of the program, including scientific information, public participation, biological goals, interim project review, and approval criteria, amendments to the NCCPA enacted effective January 1, 2003 (Section 2830[b][2] expressly provide that Subarea Plans for the San Diego MSCP will be solely governed in accordance with the NCCPA as it read on December 31, 2001). The City enrolled as an NCCP participant and entered into a Memorandum of Agreement for coordinated habitat planning on May 13, 1992 (City of Santee City Council Resolution No. 54-92).

Section 2835 of the California Fish and Game Code allows the CDFW to authorize take of species addressed by an NCCP. Take may be authorized for identified species whose conservation and management is provided for in the NCCP, whether the species is listed as threatened or endangered under FESA or CESA, provided that the NCCP complies with the conditions established in Section 2081 of the California Fish and Game Code. The NCCPA provides the framework for the San Diego MSCP Plans.

California Fish and Game Code Section 1600 et seq.

Streambed Alteration Agreement

Pursuant to Section 1600 et seq. of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required if the activity may substantially adversely affect fish and wildlife resources in accordance with Section 1603 of the California Fish and Game Code.

Fully Protected Species and Resident and Migratory Birds

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code designates certain birds, mammals, reptiles, and amphibians and fish as "fully protected" species. Fully protected species may not be taken or possessed without a permit. The CDFW may not authorize the take of such species except (1) for necessary scientific research, (2) for the protection of livestock, and (3) when the species is a Covered Species under an approved NCCP.

In addition, the California Fish and Game Code prohibits the needless destruction of nests or eggs of native bird species (California Fish and Game Code, Section 3503), and it states that no birds in the orders of Falconiformes or Strigiformes (birds of prey) can be taken, possessed, or destroyed (California Fish and Game Code, Section 3503.5). For the purposes of Section 3503, the CDFW currently considers an active nest as one that is under construction or in use and includes existing nests that are being modified. For example, if a hawk is adding to or maintaining an existing stick nest in a transmission tower, then it would be considered to be active and covered under these California Fish and Game Code sections.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (California Fish and Game Code, Section 1900–1913) directed the CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare," and prohibited take, with some exceptions, of endangered and rare plants. When CESA was amended in 1984, it expanded on the original Native Plant Protection Act, enhanced legal protection for plants, and created the categories of "threatened" and "endangered" species to parallel FESA. The 1984 amendments to CESA also made the exceptions to the take prohibition set forth in Section 1913 of the Native Plant Protection Act applicable to plant species listed as threatened or endangered under CESA. CESA categorized all rare wildlife as threatened species under CESA but did not do so for rare plants, which resulted in three listing categories for plants in California: rare, threatened, and endangered. The Native Plant Protection Act remains part of the California Fish and Game Code, and mitigation measures for impacts to rare plants are specified in a formal agreement between the CDFW and project proponents.

Porter–Cologne Water Quality Control Act

The intent of the Porter–Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and it applies to both surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the Regional Water Quality Control Boards (RWQCBs) develop basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. All waters of the state are regulated

under the Porter–Cologne Water Quality Control Act, including isolated waters that are no longer regulated by the ACOE. Developments with impact to jurisdictional waters of the state must demonstrate compliance with the goals of the act by developing Stormwater Pollution Prevention Plans (SWPPPs), Standard Urban Stormwater Mitigation Plans, and other measures to obtain a Clean Water Act Section 401 certification and/or waste discharge requirement.

California Environmental Quality Act

CEQA requires identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines, Section 15380(b)(1), defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines, Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

4.3.2.3 Local

Multiple Species Conservation Program Plan

The proposed project is located within the boundaries of the MSCP Plan (City of San Diego 1998). The MSCP Plan is a multi-jurisdictional habitat conservation planning program that involves USFWS, CDFW, the County of San Diego, the City of San Diego, the City of Chula Vista, and other local jurisdictions and special districts. Local jurisdictions and special districts implement the MSCP Plan for their respective portions through Subarea Plans. The combination of the MSCP Plan and Subarea Plans serve as a HCP pursuant to Section 10(a)(1)(B) of FESA, and as an NCCP pursuant to the California NCCP Act of 1991 (City of San Diego 1998).

The MSCP Plan study area encompasses 582,243 acres within the southwestern portion of the County. As stated in the MSCP Plan, an objective of the MSCP is to conserve a connected system of biologically viable habitat lands in a manner that maximizes the protection of sensitive species and precludes the need for future listings of species as threatened or endangered. The MSCP Plan identifies a Multi-Habitat Planning Area (MHPA), which is the area within which the permanent

MSCP Preserve will be assembled and managed for its biological resources. The MHPA is defined in many areas by mapped boundaries in figures in the MSCP Plan, and is also defined by quantitative targets for conservation of vegetation communities and goals and criteria for preserve design. The MSCP Plan targets 171,917 acres within the MHPA for conservation (City of San Diego 1998).

A total of 85 plant and wildlife species are "covered" by the MSCP Plan. The MSCP Plan Final EIR/Environmental Impact Statement identifies "Vegetation Community Conservation Target Areas" for conservation by subarea (MSCP Plan, Appendix B). A total of 2,067 acres are expected to be conserved within the Santee Subarea MHPA. With approval of each Subarea Plan and corresponding Implementing Agreement, each participating local jurisdiction receives permits and/or authorization to directly impact or take MSCP Covered Species. The Covered Species include species listed as endangered or threatened by FESA or CESA, as well as unlisted species. Table 3-5 in the MSCP Plan provides a list of the MSCP Covered Species, and includes specific conditions required for take authorizations (City of San Diego 1998).

Draft Santee Multiple Species Conservation Program Subarea Plan

The City of Santee has been preparing its Subarea Plan since the original approval of the MSCP Plan and is currently in the process of completing the Santee MSCP Subarea Plan (Figure 4.3-3, Regional Planning Context – Draft Santee MSCP Subarea Plan). Although the Draft Santee MSCP Subarea Plan has not yet been approved or permitted, it is used by the City as the guidance document for projects occurring in the City. The proposed project would qualify as a hardline Covered Project under the Santee Subarea Plan and would obtain take coverage for impacts to species through authorization from the City when the plan is adopted. The Draft Santee MSCP Subarea Plan seeks coverage for 22 species (8 plants and 14 wildlife species) and relies on a combination of hardline preserve areas and soft-line criteria-based protection zones to protect species and habitat. Coverage for species is dependent on a number of factors, including adequate building of the preserve system, adequate protection of certain populations, and other factors. Not all MSCP Covered Species occur in each jurisdiction; therefore, the number of species covered by each Subarea Plan may be a subset of the total list. It should be noted that, if the Draft Santee MSCP Subarea Plan is not approved, the proposed project would seek take authorization through FESA Section 7 or an individual Section 10 permit.

The Draft Santee MSCP Subarea Plan preserve boundaries are a result of the City's efforts to refine and expand the MHPA boundaries, to better define conservation priorities within the City and to formulate an HCP under the MSCP Plan. Implementation of the Draft Santee MSCP Subarea Plan proposes to conserve approximately 3,060 acres (67.8 percent) of the remaining natural habitat within the jurisdictional boundaries of the City. Since the Draft Santee MSCP Subarea Plan is still being developed, portions of the MSCP Subarea Plan may still change, including Covered Species. The Subarea Plan Preserve System is divided into six subunits: San Diego River Subunit, Rattlesnake Mountain Subunit, Mission Trails Subunit, Magnolia Summit Subunit, Non-Contiguous, and Fanita

Ranch Subunit. The Fanita Ranch Subunit would represent over half of the Santee MSCP Subarea Plan Preserve System and includes habitat for a number of Covered Species.

Within the context of the Draft Santee MSCP Subarea Plan, the current primary preserve goals for the Fanita Ranch Subunit, of which the proposed project is the primary component, are as follows:

- Protect and enhance habitat to support Covered Species by requiring conservation of chaparral, coastal sage scrub, and vernal pools
- Maintain a north–south wildlife movement corridor (with functional wildlife crossing) through the Fanita Ranch property
- Maintain connectivity with the Subarea Plan Preserve System in the North Magnolia Subunit, with open space areas on MCAS Miramar (to the west), and in the County (to the north and east)
- Provide management and restoration of habitat to offset impacts to Covered Species and their habitats
- Reduce edge effects and minimize disturbance during the nesting season
- Implement a managing public access program that allows trail use within the preserve area that is consistent with the goal of species and habitat protection
- Implement fire protection measures to reduce the potential for habitat degradation due to fire

Integrated Natural Resources Management Plan

While the MCAS Miramar Integrated Natural Resources Management Plan does not directly affect the proposed project, it does affect the management of adjacent areas to the west and, as such, has bearing on the viability of overall landscape-level resource management on the project open space.

MCAS Miramar is composed of large swaths of open space that contain vernal pools, wetland areas, upland habitat, and the federally listed plant and wildlife species occurring in these areas. Additionally, these lands function as wildlife corridors for the movement and dispersal of wildlife. The Integrated Natural Resources Management Plan guides land use activities, natural resource management, and conservation and ensures compliance with environmental laws and regulations on MCAS Miramar. The USFWS identifies Essential Habitat as areas eligible for designation as Critical Habitat, and the Integrated Natural Resources Management Plan incorporates Essential Habitat into high-priority management areas (MAs) to benefit the conservation of species. MAs Level I through Level V have been developed to support the conservation and management of regulated resources occurring in MCAS Miramar. Level I MAs mainly support vernal pool habitat and their associated watersheds; Level II MAs focus on non-vernal pool, federally listed species; Level III MAs support riparian vegetation and wildlife corridors/linkages; Level IV MAs support some sensitive and protected resources; and Level V MAs are associated with developed land uses and are the first considered for new development (MCAS Miramar 2018).

Santee General Plan

Divided into nine elements, the Santee General Plan is a statement of intent by the City as to the future development of the community. This is accomplished through objectives and policies that serve as a long-term policy guide for physical, economic, and environmental growth.

As discussed in the Conservation Element of the Santee General Plan, the City provides four types of recreational accommodations for residents and visitors. The Conservation Element also contains goals, guidelines, and policies to guide the management of the community's natural and human-made resources and requires that the Fanita Ranch site conserve and manage the natural resources and open space present on the project site. Conservation objectives and policies that relate to the proposed project include the following (City of Santee 2003):

- **Objective 1.0:** Protect areas of unique topography or environmental significance to the greatest extent possible.
- **Objective 2.0:** Protect floodways to reduce flood hazards, protect biological resources and preserve the aesthetic quality along water corridors.
- **Objective 7.0:** Preserve significant biological resources.
  - **Policy 7.1:** The City shall encourage the preservation and enhancement of significant biological resources in areas designated as permanent open space.
  - **Policy 7.2:** The City shall require that all development proposals provide appropriate mitigation for identified significant biological resources including selective preservation, sensitive site planning techniques and in-kind mitigation for identified impacts.
  - **Policy 7.3:** The City shall require that, for all development proposals involving the setting aside of land for permanent open space either on-site or off-site, provisions are in place to ensure the long-term management of the open space and biological resources.
- **Objective 10.0:** Preserve significant natural resources, such as mineral deposits, biological resources, watercourses, groundwater, hills, canyons, and major rock outcroppings, as part of a Citywide open space system.
  - **Policy 10.1:** The City should encourage the conservation of rare or unique plants and wildlife by identifying such resources through the environmental review process and by using open space preservation, where appropriate, to preserve the resources as a condition of a project approval, consistent with the City's future Multiple Species Conservation Program Subarea Plan.

Project Boundary

Project Site Plan

- Permanent Impacts
- Temporary Impacts
- Proposed Trail
- Impact Neutral
- Habitat Preserve
- MCAS Miramar

Draft Santee MSCP Subarea Plan

- City of Santee
- City of Santee MSCP Preserve

San Diego County MSCP

- Hardline Preserve
- Pre-Approved Mitigation Area
- Hardline Development Areas
- Unincorporated Land in Metro-Lakeside-Jamul Segment

City of San Diego MSCP

- City of San Diego Multiple Habitat Planning Area

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Figure 4.3-3

Regional Planning Context - Draft Santee MSCP Subarea Plan

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4.3.3 Thresholds of Significance

Thresholds used to evaluate potential biological resources impacts are based on applicable criteria in Appendix G of the CEQA Guidelines. A significant impact would occur if the proposed project would:

- **Threshold 1:** Have a substantial adverse 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 CDFW or USFWS.
- **Threshold 2:** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.
- **Threshold 3:** Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- **Threshold 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.
- **Threshold 5:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- **Threshold 6:** Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state HCP.

4.3.4 Method of Analysis

This section addresses direct and indirect impacts to biological resources that would result from implementation of the proposed project and provides an analysis of significance for each. Mitigation would include open space land dedication incorporated into the MSCP Preserve.

Direct impacts were quantified by overlaying the anticipated limits of grading on the biological resources maps and quantifying impacts. Refer to Figures 5-1a through 5-1af in Section 5 of Appendix D for additional detail depicting the impacts to biological resources on the project site. The limits of grading are presumed to encompass all future development and use areas (i.e., worst-case scenario), including the three Villages, the Farm, off-site impacted areas, basins, easements, FMZs, streets, and the Special Use area. Fuel modification for the project site is proposed for the entire exterior perimeter, along roadways, and also interior landscaped areas adjacent to natural open space.

Permanent impacts are those that would be permanently impacted and include proposed trails in the Habitat Preserve, detention basins, the three Villages including the Farm, FMZ 1 and 2 and associated streets, grading buffer, manufactured slopes occurring internally in the development footprint, neighborhood development, streets, and the Special Use area. Temporary impacts include manufactured slopes adjacent to the Habitat Preserve and grading buffers that would be revegetated following construction. It should be noted that, although the Habitat Preserve totals 1,518.50 acres in Table 4.3-5, the final acreage will include the proposed trails (10.52 acres), the

SDG&E access road (6.88 acres), and on-site temporary impact areas (114.47 acres) for a total of 1,650.38 acres. Impact neutral areas, which are areas that are not impacted but for which the proposed project would not be requesting preservation credit, include the following: passive park, riparian areas surrounded by development, and the FMZ adjacent to existing development. Table 4.3-5 summarizes project impact categories (impact neutral, Habitat Preserve, temporary impact, permanent impacts) on the project site and off-site improvement areas.

Table 4.3-5. Impact Categories on the Project Site and Off-Site Improvement Areas

Category	On-Site Acreage	Off-Site Acreage[1]	Total Acreage
Impact Neutral – 76.32 acres			
FMZ Adjacent Owner Easement/FMZ Zone Interim	54.59	—	54.59
Passive Park	10.51	—	10.51
Riparian Open Space	12.10	—	12.10
Impact Neutral Total	*77.20*	—	*77.20*
Habitat Preserve			
Habitat Preserve	1,518.50	—	1,518.50
Temporary Impacts			
Grading Buffer	—	<0.01	<0.01
Manufactured Slopes	114.47	7.28	121.75
Temporary Impact Total	*114.47*	*7.29*	*121.75*
Permanent Impacts			
Proposed Habitat Preserve Trails[2,3]	10.94	—	10.94
SDG&E Access Road[4]	7.14	—	7.14
Detention Basin	37.36	—	37.36
Farm	26.93	—	26.93
FMZ 1	45.79	—	45.79
FMZ 2	70.82	0.21	71.03
FMZ Connecting Street	7.12	—	7.12
FMZ Road	—	12.96	12.96
Manufactured Slopes	24.23	—	24.23
Neighborhood Development	444.73	—	444.73
Street	180.81	12.14	192.95
Special Use Area	31.87	—	31.87
Water Tank and Access Road	4.86	—	4.86
Permanent Impact Total	*927.90*	*25.32*	*953.22*
Grand Total	**2,638.07**	**32.60**	**2,670.67**

Notes: FMZ = fuel modification zone; SDG&E = San Diego Gas & Electric.
Totals may not sum due to rounding.

1 "Off site" includes the impacts associated with the Cuyamaca Street and Magnolia Avenue street extensions.

2 See Table 5-1b, Trail Categories within the Project Area, in Appendix D for a detailed breakdown of trails on the project site.

3 Of the 10.94 acres of permanent impacts from trails, only 10.52 acres will be included within the Habitat Preserve. The remaining portion totaling 0.41 acre is within Impact Neutral or other permanent impact areas and therefore are not counted toward the Habitat Preserve total.

4 Only a portion (6.88 acres) of the SDG&E road will be included within the Habitat Preserve. The remaining portion (0.25 acres) would be considered a permanent impact occurring outside the Habitat Preserve.

The proposed Habitat Preserve currently contains an extensive existing trail system, much of which is subject to frequent, unauthorized off-road vehicle traffic and unauthorized human activities that have been detrimental to the sensitive habitats on site. These effects were greater around the time the MSCP Plan was finalized, but a variety of reasons resulted in consolidation and elimination of use in several areas (e.g., different ownership and management, fencing and control, increased first responder presence, fire and subsequent annual grass growth masking historical disturbances, and other factors). As a result, the current baseline is less disturbed than the existing condition when the MSCP Plan was analyzed and approved. The project proposes to do the following regarding the trail system within the Habitat Preserve: (1) close-off and revegetate a large proportion of the existing trails, (2) retain a portion of the existing trails for pedestrian and bicycle use, and (3) create new trails within the Habitat Preserve. It should be noted that in many cases, existing trails would be realigned to avoid sensitive resources (e.g., 100-foot buffer around vernal pools, willowy monardella locations, and Quino checkerspot butterfly suitable ridges and hilltops) thus creating the need for a new proposed trail in the vicinity. Where these realignments were made, the old trails will be closed and restored. After project implementation, 10.52 acres of trails, including 6 acres of created trails, and 4.52 acres of existing trails, would occur in the Habitat Preserve. The Habitat Preserve would also include a portion of the existing SDG&E access road (6.88 acres of the 7.14-acre total). A total of 34.31 acres of existing trails in the Habitat Preserve would be closed and restored. The trail category breakdown on the project site is summarized in Table 4.3-6.

Table 4.3-6. Trail Categories on the Project Site

Category	Habitat Preserve (Acres)	Impact Neutral (Acres)	Permanent (Acres)	Temporary (Acres)	Total (Acres)
Existing Trails					
Existing Trails (Off Site)	—	—	0.12	—	**0.12**
Habitat Preserve Trails[1]	4.52	—	—	—	**4.52**
SDG&E Access Road[1]	6.88	—	0.25	—	**7.14**
Interior Development Trails	—	—	01.06	—	**01.06**
Proposed Trail Creation (New)					
Habitat Preserve Trails[1]	6.00	—	—	—	**6.00**
Multi-Purpose Trail (Off Site)	—	—	1.35	—	**1.35**
Interior Development Trail	—	—	28.73	—	**28.73**
Existing Trails (Closed)					
Closed and Restored Trails	34.31	2.09	0.30	—	**36.69**
Closed Trails (Permanently Impacted by Development)	—	—	27.24	—	**27.24**
Closed (Impacted by Off-Site Development)	—	—	1.88	0.87	**2.75**
Total	**51.73**	**2.09**	**60.93**	**0.87**	**115.62**

Note: SDG&E = San Diego Gas & Electric; Totals may not sum due to rounding.
[1] Habitat Preserve trails (10.52 acres for existing and new) and the SDG&E access road (6.88 acres) are considered permanent impacts but will be included in the final Habitat Preserve boundary.

Indirect impacts result from adverse edge effects, either temporary indirect impacts related to construction, or permanent, chronic indirect impacts associated with the location of urban development in proximity to biological resources within natural open space.

Trails are known to be a source of indirect effect on surrounding natural resources. As shown on Figures 1-5 and 1-6 of Appendix D, in the past and currently there is more off-road vehicle activity and trail-related disturbance on site than would occur under the proposed project. While the current levels of activity and estimated post-project use levels are not known, it is probable that at least some portions of the trail system would receive more use than they do now. For instance, trail segments closer to access points are more likely to receive use and trail segments more distant from access locations are less likely to receive use. There is no data on the existing and potential use of the proposed Fanita Ranch Preserve, but Goodan Ranch/Sycamore Canyon County Preserve receives between 11 and 20 visits per day, Crestridge Ecological Reserve receives between 51 and 100 persons per day, and Mission Trails Regional Park receives over 251 visits per day. It is reasonable to assume that the Fanita Ranch Preserve would receive use somewhere between and closer to the Crestridge Ecological Reserve and the Goodan Ranch/Sycamore Canyon County Preserve. Given these rates, it is likely that there is currently an indirect effect

from trail use and that there would continue to be an indirect effect due to trail use. These indirect impacts from existing and proposed trails and trail use are analyzed further in Section 4.3.5.

During construction of the proposed project, temporary indirect impacts may include dust and noise, which could disrupt habitat and species vitality temporarily, and construction-related soil erosion and runoff; however, all project grading is subject to established restrictions and requirements that restrict erosion and runoff, including the federal Clean Water Act and National Pollution Discharge Elimination System (NPDES), as well as preparation of a SWPPP. These programs minimize project impacts to erosion/runoff. Permanent indirect impacts to adjacent open space may include intrusions by humans and domestic pets, noise, lighting, invasion by exotic plant and wildlife species, effects of toxic chemicals (e.g., fertilizers, pesticides, herbicides, and other hazardous materials), urban runoff from developed areas, soil erosion, litter, fire, and hydrologic changes (e.g., changes in groundwater level and quality).

Regardless of the ultimate development on the proposed school site (school or residential), the impacts to biological resources would be the same due to similar ground disturbance activities. Therefore, the analysis below adequately addresses the proposed project's preferred land use plan with school and the land use plan without school.

4.3.5 Project Impacts and Mitigation Measures

4.3.5.1 Threshold 1: Candidate, Sensitive, or Special-Status Species

Would the proposed project have a substantial adverse 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 CDFW or USFWS?

Impact: The proposed project could have direct and indirect impacts on candidate, sensitive, or special-status plant or wildlife species that occur within and in the vicinity of the project site.	**Mitigation:** Preserve Management Plan (BIO-1), Upland Restoration Plan (BIO-2), Narrow Endemic Plant Species (BIO-3), Oak Tree Restoration Plan (BIO-4), Preconstruction Surveys and Avoidance and Minimization Measures for Special-Status Plant Species (BIO-5), Land Use Adjacency Guidelines (BIO-6), Stormwater Pollution Prevention Plan (BIO-7), Approved Biologist (BIO-8), Habitat Preserve Protection (BIO-9), Weed Control Treatments (BIO-10), Argentine Ant Control and Monitoring (BIO-11), Vernal Pool Mitigation Plan (BIO-12), Western Spadefoot Relocation (BIO-13), Nesting Bird Survey (BIO-14), Wetland Mitigation Plan (BIO-15), Coastal Cactus Wren Habitat Management (BIO-16), Brown-Headed Cowbird Trapping (BIO-17), Restoration of Suitable Habitat for Quino Checkerspot Butterfly and Hermes Copper Butterfly (BIO-18), African Clawed Frog Trapping (BIO-19), Wildlife Protection (BIO-20), Fire Protection Plan (BIO-21).
Significance Before Mitigation: Potentially significant.	**Significance After Mitigation:** Less than significant.

Impact Analysis

Sensitive Plant Species

Direct Impacts. Sensitive and special-status plant species which have been observed or have a moderate potential to occur on the project site or off-site improvement areas (except for the Magnolia Avenue improvements) are listed in Section 4.3.1.4. Implementation of the proposed project would result in the direct loss of locations and individuals of 14 sensitive plant species (refer to Figures 5-1a through 5-1af in Section 5 of Appendix D). The Magnolia Avenue extension is highly disturbed and the potential for special-status plant species to occur is low. This area was not surveyed for special-status plant species due to lack of legal access to the parcels. Preconstruction surveys will be conducted when legal access is provided. Table 4.3-7 lists all mapped special-status plant species that would be subject to direct impacts from project development on and off site, including Habitat Preserve and brush management (impact neutral) areas (Figure 4.3-4, Habitat Preserve Plan).

Table 4.3-7. Summary of Direct Impacts to Special-Status Plant Species

Plant Species	Status (Federal/State/ CNPS/Draft Santee MSCP Subarea Plan)	Impacts (Individuals)			Habitat Preserve	Impact Neutral	Total Individuals
		On-Site[1]	Off-Site	Total Impact (Percent Impacted)			
San Diego sagewort (*Artemisia palmeri*)	None/None/4.2/ None	190	—	190 (86%)	30	—	220
Coulter's saltbush (*Atriplex coulteri*)	None/None/1B.2/ None	15	—	15 (23%)	—	50	65
San Diego goldenstar (*Bloomeria clevelandii*)	None/None/1B.1/ Covered	7,964 (67)	—	7,964 (44%)	10,354	—	18,318
Small-flowered morning-glory (*Convolvulus simulans*)	None/None/4.2/ None	3	—	3 (23%)	7	3	13
Variegated dudleya (*Dudleya variegata*)	None/None/1B.2/ Covered NE	781	5	786 (9%)	8,156	—	8,942
San Diego barrel cactus (*Ferocactus viridescens*)	None/None/2B.1/ Covered	585 (10)	—	585 (12%)	4,270	1	4,856
Palmer's grapplinghook (*Harpagonella palmeri*)	None/None/4.2/ None	384	10	394 (86%)	16	50	460
Graceful tarplant (*Holocarpha virgata* ssp. *elongata*)	None/None/4.2/ None	2	—	2 (33%)	4	—	6
Willowy monardella (*Monardella viminea*)	FE/CE/1B.1/ Covered	1*	—	1* (<1%)	1,621	—	1,622
California Adder's-tongue (*Ophioglossum californicum*)	None/None/4.2/ None	—	—	— (0%)	250	—	250

Table 4.3-7. Summary of Direct Impacts to Special-Status Plant Species

Plant Species	Status (Federal/State/ CNPS/Draft Santee MSCP Subarea Plan)	Impacts (Individuals)			Habitat Preserve	Impact Neutral	Total Individuals
		On-Site[1]	Off-Site	Total Impact (Percent Impacted)			
Chaparral rein orchid (*Piperia cooperi*)	None/None/4.2/ None	—	—	— (0%)	1	—	1
Engelmann oak (*Quercus engelmannii*)	None/None/4.2/ None	5	—	5 (100%)	—	—	5
Ashy spike-moss (*Selaginella cinerascens*)	None/None/4.1/ None	*Not mapped due to low ranking and prevalence on the project site.*					
San Diego County viguiera (*Viguiera laciniata*)	None/None/4.2/ None	84	5	89 (4%)	1,959	3	2,051

Notes: CNPS = California Native Plant Society; MSCP = Multiple Species Conservation Program; NE = narrow endemic.

[1] Acreage in parentheses includes the portion of the total permanently impacted by the proposed trails.

* It should be noted that there are 49 individuals occurring along existing retained trails and adjacent to proposed trail creation areas. Impacts to these individuals would be avoided through the maintenance and management of trails as outlined in the Public Access Plan (Appendix T of EIR Appendix D).

Status Legend

Federal

FE: Federally listed as endangered.

State

CE: State-listed as endangered.

CRPR: California Rare Plant Rank (previously known as the CNPS List)

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

2B: Plants rare, threatened, or endangered in California, but more common elsewhere

4: Plants of limited distribution – a watch list

Threat Rank

.1 – Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)

.2 – Fairly threatened in California (20 percent–80 percent occurrences threatened/moderate degree and immediacy of threat)

Draft Santee MSCP Subarea Plan (City of Santee 2018)

Covered: Draft Santee MSCP Subarea Plan Covered Species

Impacts to the following species listed in Table 4.3-7 would not be significant due to the lack of sensitivity of the species (not state or federally listed, CRPR List 3 or 4, or not listed by CNPS): San Diego sagewort, small-flowered morning-glory, Palmer's grapplinghook, graceful tarplant, California adder's-tongue, ashy spike-moss, chaparral rein orchid, and San Diego County viguiera. None of these species are proposed for coverage by the Draft Santee MSCP Subarea Plan. Each of these species is a CRPR 4 species, which are relatively common in this portion of the County and are not considered significantly rare. Therefore, impacts to these non-Covered Species would not be significant under CEQA, and direct impacts would be less than significant.

Other sensitive plant species that occur in the region (e.g., Encinitas baccharis [*Baccharis vanessae*], gabbro-endemic species, clay-endemic species) were not detected in focused surveys; therefore, there would be no significant direct impacts to these species.

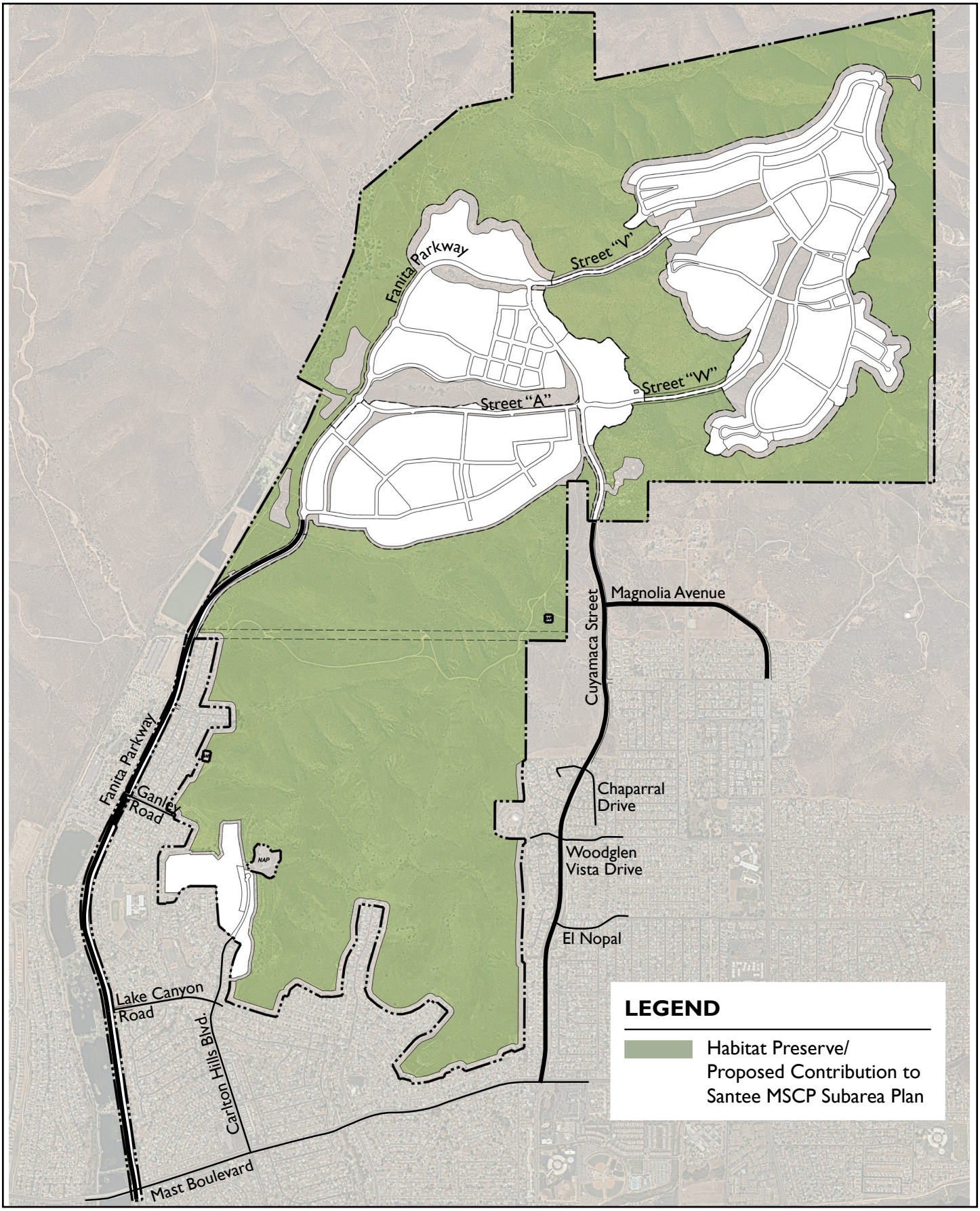
Implementation of the proposed project would result in direct impacts to covered special-status plant species, including San Diego goldenstar, variegated dudleya, San Diego barrel cactus, and willowy monardella. All permanent and temporary impacts, in both on- and off-site areas, to these species would be significant.

A total of 117.56 acres of USFWS-designated Critical Habitat for willowy monardella occur along the northwestern boundary of the project site (refer to Appendix D, Figure 5-5a, Impacts to USFWS Designated Critical Habitat – Willowy Monardella). The majority of the Critical Habitat (110.54 acres) would be in the Habitat Preserve, and only 7.02 acres would be impacted from project implementation. Although 7.02 acres of Critical Habitat for willowy monardella would be both permanently (4.39 acres) and temporarily (2.63 acres) impacted, only 1.39 acres of it is suitable habitat for this species despite being designated. Appendix D, Table 5-5a, Impacts to Vegetation Communities and Land Cover Types within Willowy Monardella Critical Habitat Areas, summarizes the vegetation communities impacted in the Critical Habitat area. Impacts would occur to one willowy monardella individual in the Critical Habitat area, adjacent to the detention basin (temporary impact). Impacts to the 49 individuals along the existing retained trails and adjacent to proposed trail creation areas would be avoided. Impacts to this species would be significant.

According to the Draft Santee MSCP Subarea Plan, impacts to individual mature oak trees (i.e., oak trees with at least one trunk of 6-inch or more diameter at breast height [DBH] or multi-trunked native oak trees with aggregate diameter of 10-inch DBH) would be significant and require mitigation. Direct impacts to Coulter's saltbush would also occur, resulting in a significant impact to this species.

Indirect Impacts. Indirect impacts to special-status plants would primarily result from adverse edge effects. During construction of the proposed project, edge effects may include dust, which could disrupt plant vitality in the short term, as well as construction-related soil erosion and runoff.

Permanent indirect edge effects could include intrusions by humans and domestic pets and possible trampling of individual plants, unauthorized trail use, invasion by exotic plant and wildlife species, exposure to urban pollutants, soil erosion, litter, fire, and hydrological changes (e.g., changes in surface and groundwater level and quality). Not only can altered hydrology directly affect special-status plants, increased moisture associated with irrigation and runoff can attract invasive Argentine ants (*Linepithema humile*), which could displace native ants (e.g., harvester ants (*Messor* spp., *Pogonomyrmex* spp.) that are potential pollinators and seed dispersers for special-status plants. Argentine ants are ineffective at seed dispersal and can wreak ecological havoc, disrupt ecosystem processes, and threaten future stability. Permanent indirect impacts to special-status plants as a result of trampling by humans and domestic pets would be potentially significant.



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Source: Fanita Ranch Specific Plan 2020.

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Figure 4.3-4

Habitat Preserve Plan

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Sensitive Wildlife Species

Direct Impacts. Sensitive wildlife species that have been observed or have potential to occur on the project site or off-site improvement areas are described in Section 4.3.1.4. The proposed project would impact these species through new development that would displace individual animals and destroy portions of their habitat. In addition, some of the smaller and less mobile species, such as reptiles and rodents, could be killed or wounded by clearing, grading, and other construction activities.

Implementation of the proposed project would result in the direct loss of habitat, including foraging habitat, for the majority of the special-status wildlife species described in Section 4.3.1.4, as well as those species with modeled suitable habitat and a moderate potential to occur on the project site. These species include the following: western spadefoot, southern California legless lizard, California glossy snake, San Diego tiger whiptail, red diamondback rattlesnake, Blainville's horned lizard, Coronado Island skink, Belding's orange-throated whiptail, coast patch-nosed snake, two-striped garter snake, Cooper's hawk, Southern California rufous-crowned sparrow, grasshopper sparrow, golden eagle, Bell's sage sparrow, northern harrier, American peregrine falcon, long-eared owl, oak titmouse, coastal cactus wren, merlin, yellow-breasted chat, prairie falcon, loggerhead shrike, coastal California gnatcatcher, rufous hummingbird, Brewer's sparrow, yellow warbler, least Bell's vireo, white-tailed kite, California horned lark, San Diego black-tailed jackrabbit, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego desert woodrat, pallid bat, western mastiff bat, Townsend's big-eared bat, western red bat, western yellow bat, long-eared myotis, western small-footed myotis, Yuma myotis, big free-tailed bat, pocketed free-tailed bat, San Diego fairy shrimp, Quino checkerspot butterfly, and Hermes copper butterfly.

No direct impacts are expected to osprey because this species was observed perched on site but foraging within nearby Santee Lakes Recreation Preserve, and there is no suitable foraging or nesting habitat for this species on site. Willow flycatcher has a low potential to nest on site since only one willow flycatcher was observed in May 2017 during focused surveys and was not observed during subsequent visits. In accordance with the survey protocol guidelines, this individual was determined to be a migrant subspecies and not southwestern willow flycatcher. Therefore, direct impacts to breeding willow flycatchers would not occur.

A total of 2,407.40 acres of USFWS-designated Critical Habitat for coastal California gnatcatcher occur on the project site (refer to Appendix D, Figure 5-5b, Impacts to USFWS Designated Critical Habitat – Coastal California Gnatcatcher). Implementation of the proposed project would result in impacts to 987.58 acres of Critical Habitat for coastal California gnatcatcher, including both permanent and temporary impacts; however, only 399.19 acres would be considered suitable habitat for this species. Impacts would occur to 12 coastal California gnatcatcher use areas within the designated Critical Habitat area. Refer to Appendix D, Table 5-5b, Impacts to Vegetation Communities and Land Cover Types within Coastal California Gnatcatcher Critical Habitat Areas,

which summarizes the vegetation communities impacted within the coastal California gnatcatcher Critical Habitat area on the project site.

A total of 2,426.06 acres of proposed USFWS Critical Habitat for Hermes copper butterfly occur on the project site (refer to Appendix D, Figure 5-5c, Impacts to USFWS Proposed Critical Habitat – Hermes Copper Butterfly). It should be noted that the USFWS modeling used to prepare the proposed Critical Habitat designations is based on a combination of internal and external opinion and buffering of assumed habitat and does not take into account the site-specific suitable habitat. In this instance, suitable habitat refers to redberry buckthorn within 15 feet of California buckwheat. Therefore, proposed USFWS Critical Habitat designations can overestimate the actual suitable habitat within an area and include many acres of unsuitable habitat (e.g., areas where redberry buckthorn and/or California buckwheat are not present). Table 5-5c in Appendix D includes a breakdown of suitability within the proposed USFWS Critical Habitat mapping based on field surveys for the Hermes copper butterfly host plant species conducted specifically for the proposed project. Implementation of the proposed project would result in impacts to 974.11 acres of proposed Critical Habitat for Hermes copper butterfly, including both permanent and temporary impacts; however, only 52.97 acres would be considered potentially suitable habitat for this species. Refer to Appendix D, Table 5-5c, Impacts to Vegetation Communities and Land Cover Types within the Proposed Hermes Copper Butterfly Critical Habitat Areas, which summarizes the vegetation communities impacted within the proposed Critical Habitat area on the project site.

For the purposes of this analysis, it is assumed that this is a hardline Covered Project under the Draft Santee MSCP Subarea Plan. As such, impacts to covered narrow endemic species are subject to the narrow endemic species policy identified in the Draft Santee MSCP Subarea Plan which requires 100 percent conservation within open space (i.e., hardline preserve) and 80 percent conservation through translocation within permanent impact (i.e., take-authorized) areas. Refer to Figures 5-1a through 5-1af in Section 5 of Appendix D to see the locations of and impacts to biological resources on the project site. Species-specific impact figures include western spadefoot shown on Figure 4.3-5, Quino checkerspot butterfly shown on Figures 4.3-6a through 4.3-6c, and Hermes copper butterfly shown on Figure 4.3-7. Table 4.3-8a lists all special-status wildlife species that would be subject to direct impacts from project development including brush management activities and off-site improvement areas. Table 4.3-8a outlines the impacts to suitable habitat (including foraging habitat), the significance determination, and the mitigation measure proposed to reduce the impact to less than significant for each species. Table 4.3-8b provides a detailed impact summary for Quino checkerspot butterfly, and Table 4.3-8c provides a detailed impact summary for Hermes copper butterfly.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Amphibians and Reptiles				
western spadefoot (*Spea hammondii*)	None/SSC/Covered	395.24 acres[3] and 242 features with the potential to support this species; 38 occupied features[3]	230.36; 14 occupied features. See Figure 4.3-5.	Potentially significant direct impacts to western spadefoot would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, which would conserve 24 occupied features and 146.24 acres of suitable habitat in a configuration that preserves genetic exchange and species viability; Mitigation Measure BIO-12, which would require a Vernal Pool Mitigation Plan for enhancing and restoring 0.50 acre of vernal pool resources; and Mitigation Measure BIO-13, which would relocate individuals within impact areas to suitable breeding habitat outside of impact areas.
Southern California legless lizard (*Anniella stebbinsi*)	None/SSC/None	638.67 acres; moderate potential to occur	358.98	Potentially significant direct impacts to Southern California legless lizard would be reduced to less than significant with implementation of the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 276.10 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
California glossy snake (*Arizona elegans occidentalis*)	None/SSC/None	2,072.47 acres; moderate potential to occur	782.33	Potentially significant direct impacts to California glossy snake would be reduced to less than significant with implementation of the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,263.65 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*)	None/SSC/None	638.67 acres; two locations (pre-2016)	358.98	Potentially significant direct impacts to San Diegan tiger whiptail would be reduced to less than significant with implementation of the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 276.10 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Red diamondback rattlesnake (*Crotalus ruber*)	None/SSC/None	2,331.42 acres; 9 locations (pre-2016) and 1 location (2016/2017)	923.30	Potentially significant direct impacts to red diamondback rattlesnake would be reduced to less than significant with implementation of the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,371.31 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Blainville's horned lizard (*Phrynosoma blainvillii*)	None/ SSC/Covered	2,309.77 acres; 24 locations (pre-2016) and 3 locations (2016/2017)	922.90; 17 locations	Potentially significant direct impacts to Blainville's horned lizard would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1, which would conserve 10 known locations and provide 1,348.66 acres of suitable habitat in a configuration that preserves genetic exchange and species viability and through Mitigation Measure BIO-2, which would restore 103.15 acres of temporary impacts to suitable habitat for this species.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Coronado Island skink (*Plestiodon skiltonianus interparietalis*)	None/ WL/None	2,110.08 acres; moderate potential to occur	786.82	Potentially significant direct impacts to Coronado Island skink would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,293.72 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*)	None/SSC/Covered	2,102.10 acres; 48 locations (pre-2016; 1 off site) and 6 locations (2016/2017)	784.78; 23 locations	Potentially significant direct impacts to Belding's orange-throated whiptail would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1, which would conserve 30 known locations and provide 1,290.01 acres of suitable habitat in a configuration that preserves genetic exchange and species viability; and through Mitigation Measure BIO-2, which would restore 91.10 acres of temporary impacts to suitable habitat for this species.
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	None/SSC/None	2,072.47 acres; moderate potential to occur	782.33	Potentially significant direct impacts to coast patch-nosed snake would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,263.65 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Two-striped garter snake (*Thamnophis hammondii*)	None/SSC/None	18.66 acres; 1 location (pre-2016)	6.28	Potentially significant direct impacts to Two-striped garter snake would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 9.94 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Birds				
Cooper's hawk (*Accipiter cooperii*) (nesting)	None/WL/None	34.41 acres nesting; 2,640.56 acres foraging; 12 locations (pre-2016; 1 off site) and 4 locations (2016/2017)	2.65 nesting; 1,056.61 foraging	Potentially significant impacts to Cooper's hawk would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, which would provide 28.87 acres of suitable nesting habitat and 1,510.85 acres of suitable foraging habitat in a configuration that preserves genetic exchange and species viability; Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat and appropriate buffers if active nests are found; and through Mitigation Measure BIO-15, which would restore temporary impacts in wetland areas.
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	None/WL/None	2,072.47 acres nesting/foraging; 127 locations (pre-2016; 1 off site) and 28 locations (2016/2017)	782.33	Potentially significant impacts to Southern California rufous-crowned sparrow would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, which would provide 1,263.65 acres of suitable nesting and foraging habitat in a configuration that preserves genetic exchange and species viability; and through implementation of Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Grasshopper sparrow (*Ammodramus savannarum*) (nesting)	None/SSC/None	552.11 acres nesting/foraging; 68 locations (pre-2016) and 19 locations (2016/2017)	260.89	Potentially significant impacts to grasshopper sparrow would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, which would provide 272.71 acres of suitable nesting and foraging habitat in a configuration that preserves genetic exchange and species viability; and through implementation of Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys.
Golden eagle (*Aquila chrysaetos*) (nesting and wintering)	BCC/FP, WL/None	834.23 acres; 1 flyover (pre-2016)	368.33 foraging	The project site does not contain suitable nesting habitat for golden eagle. Potential suitable foraging habitat does occur; however, the site is unoccupied by golden eagles. The proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 442.46 acres of potential suitable foraging habitat that would reduce potential impacts to this species to less than significant.
Bell's sage sparrow (*Artemisiospiza belli belli)*	BCC/WL/None	2,072.47 acres; 15 individuals (pre-2016)	782.33	Potentially significant impacts to Bell's sage sparrow would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, which would provide 1,263.65 acres of suitable nesting habitat in a configuration that preserves genetic exchange and species viability; and through implementation of Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Long-eared owl (*Asio otus*)	None/SSC/None	37.61 acres; 1 individual (pre-2016)	4.49	Potentially significant impacts to long-eared owl would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, which would provide 30.07 acres of suitable nesting habitat in a configuration that preserves genetic exchange and species viability; and through implementation of Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat.
Oak titmouse (*Baeolophus inornatus*)	BCC/None/None	29.63 acres; 3 individuals (pre-2016)	2.45	Potentially significant impacts to oak titmouse would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, which would provide 26.36 acres of suitable habitat in a configuration that preserves genetic exchange and species viability; and through implementation of Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat.
Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	None/SSC/Covered	0.99 acre; 5 clusters[4]	0.57; 3 clusters	Potentially significant impacts to coastal cactus wren would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1, which would conserve 0.42 acre of suitable habitat containing 2 coastal cactus wren clusters; Mitigation Measure BIO-2, which would restore 0.02 acre of temporary impacts to cactus patch areas; Mitigation Measure BIO-14, which would require nesting bird surveys; Mitigation Measure BIO-16, coastal cactus wren management plan; and through Mitigation Measure BIO-9, which would require planting of cactus patches along brush management zones.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Northern harrier (*Circus cyaneus*)	None/SCC/None	1,879.23 foraging; 6 individuals (pre-2016)	639.10	Northern harrier has low potential for nesting on the project site due to lack of preferred nesting habitat and lack of observations. The proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,199.13 acres of suitable foraging habitat in a configuration that preserves genetic exchange and species viability and would reduce potential impacts to this species to less than significant.
Willow flycatcher (*Empidonax traillii*)	BCC/ SE/None	7.98 acres; one individual observed but low potential to nest	2.05	One willow flycatcher individual observed during focused surveys on May 23, 2017. The individual was not observed during subsequent visits and assumed to be a migrant. Direct impacts to nesting willow flycatchers are not expected.
Merlin (*Falco columbarius*) Foraging/wintering habitat	None/WL/None	437.45 acres foraging; observed during winter months	213.71	Since Merlin does not breed in California, this species does not have the potential to nest on the project site. The proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 207.88 acres of suitable foraging or wintering habitat that would reduce potential impacts to this species to less than significant.
Prairie falcon (*Falco mexicanus*)	BCC/ WL/None	420.90 acres; moderate potential to forage	216.92	Suitable breeding habitat is not present on the project site. The proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 188.56 acres of suitable foraging habitat that would reduce impacts to this species to less than significant.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
American peregrine falcon (*Falco peregrinus anatum*)	BCC/FP/None	8.52 acres foraging; 1 pre-2016 observation and 2 observations during 2016/2017	2.19	Suitable breeding habitat is not present on the project site. The proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 3.71 acres of suitable foraging habitat that would reduce potential impacts to American peregrine falcon to less than significant.
Yellow-breasted chat (*Icteria virens*)	None/SSC/None	36.75 acres; 2 pre-2016 observation and 1 observation during 2016/2017	3.68	Potentially significant impacts to yellow-breasted chat would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1, which would provide 30.03 acres of suitable habitat in a configuration that preserves genetic exchange and species viability; Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat and appropriate buffers if active nests are found; Mitigation Measure BIO-17, which would remove brown-headed cowbirds from the project site; and Mitigation Measure BIO-15, which would restore temporary impacts in wetland areas.
Loggerhead shrike (*Lanius ludovicianus*) (nesting)	BCC/SSC/None	2,602.41 acres; 8 individuals observed in 2015 and during previous studies	1,051.97	Potentially significant impacts to loggerhead shrike would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,480.78 acres of suitable habitat in a configuration that preserves genetic exchange and species viability. Potentially significant impacts to nesting birds would be reduced to less than significant through implementation of Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat and appropriate buffers if active nests are found.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Osprey (*Pandion haliaetus*)	None/WL/None	N/A; observed in 2016, species has low potential to nest or forage due to lack of suitable habitat.	N/A	No direct impacts are expected to osprey.
Coastal California gnatcatcher (*Polioptila californica californica*)	FT/SSC/Covered	1,471.40 acres; 39 Use Areas[5]	427.85; 14 Use Areas	Potentially significant impacts to coastal California gnatcatcher would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1, which would conserve 1,017.61 acres of suitable habitat containing 25 Use Areas[3] (64% preserved); Mitigation Measure BIO-2, which would restore 45.54 acres of temporary impacts to suitable habitat areas; Mitigation Measure BIO-14 which would require preconstruction nesting bird surveys in suitable habitat; and through Mitigation Measure BIO-17, which would remove brown-headed cowbirds from the project site.
Rufous hummingbird (*Selasphorus rufus*)	BCC/None/None	1,509.01 acres; one observation (2016/2017)	432.34	Potentially significant impacts to Rufous hummingbird would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,047.68 acres of suitable foraging habitat in a configuration that preserves species viability.
Brewer's sparrow (*Spizella breweri*)	BCC/None/None	2,072.47 acres; one observation (2016/2017)	782.33	Potentially significant impacts to Brewer's sparrow would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,263.65 acres of suitable habitat in a configuration that preserves species viability.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Yellow warbler (*Setophaga petechia*)	BCC/SSC/None	36.75 acres; 3 locations (in both 2016 and 1997)	3.68	Potentially significant impacts to yellow warbler would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1, which would provide 30.03 acres of suitable nesting habitat in a configuration that preserves genetic exchange and species viability; through implementation of Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat and appropriate buffers if active nests are found; Mitigation Measure BIO-17, which would remove brown-headed cowbirds from the project site; and Mitigation Measure BIO-15, which would restore temporary impacts in wetland areas.
Least Bell's vireo (*Vireo bellii pusillus*)	FE/SE/Covered	7.98 acres; three individuals[6]	2.05; two individuals	One pair of Least Bell's vireo was observed within coastal sage scrub/chaparral during the 2016 focused survey; however, the pair disbanded and no nesting least Bell's vireo were observed during focused surveys. The individual observed during the 1997 survey is located within riparian habitat within the Habitat Preserve. Impacts to suitable nesting habitat would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1, which would conserve 3.71 acres of suitable habitat (46% preserved); Mitigation Measure BIO-14, which would require preconstruction nesting bird surveys in suitable habitat; Mitigation Measure BIO-17, which would remove brown-headed cowbirds from the project site; and Mitigation Measure BIO-15, which would restore 0.46 acres of temporary impacts in suitable wetland habitat areas.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
White-tailed kite (*Elanus leucurus*)	None/FP/None	2,029.58 acres foraging; 4 observations pre-2016	698.17	This species is unlikely to nest on the project site. The proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,261.09 acres of suitable foraging habitat in a configuration that preserves species viability and would reduce impacts to white-tailed kite to less than significant.
California horned lark (*Eremophila alpestris actia*)	None/WL/ None	527.92 acres foraging; prevalent within project site	267.71	Potentially significant impacts to California horned lark would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, which would provide 217.06 acres of suitable foraging habitat in a configuration that preserves species viability.
Mammals				
pallid bat (*Antrozous pallidus*)	None /SSC/None	2,657.30 acres; acoustically detected	1,062.41	Potentially significant impacts to pallid bat would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Dulzura pocket mouse (*Chaetodipus californicus femoralis*)	None/SSC/None	2,630.02 acres; moderate potential to occur	1,052.48	Potentially significant impacts to Dulzura pocket mouse would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,507.06 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Townsend's big-eared bat (*Corynorhinus townsendii*) foraging habitat	None/SSC/None	2,657.30 acres; acoustically detected	1,062.41	Potentially significant impacts to Townsend's big-eared bat would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Western mastiff bat (*Eumops perotis californicus*)	None/SSC/None	2,657.30 acres; moderate potential to occur	1,062.41	Potentially significant impacts to western mastiff bat would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability and would reduce impacts to this species to less than significant.
Western red bat (*Lasiurus blossevillii*)	None/SSC/None	2,657.30 acres; acoustically detected	1,062.41	Potentially significant impacts to Western red bat would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Western yellow bat (*Lasiurus xanthinus*) foraging habitat	None/SSC/None	2,657.30 acres; acoustically detected	1,062.41	Potentially significant impacts to Western yellow bat would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Long-eared myotis (*Myotis evotis*) foraging habitat	None/SSC/None	2,657.30 acres; moderate potential to occur	1,062.41	Potentially significant impacts to long-eared myotis would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Western small-footed myotis (*Myotis ciliolabrum*) foraging habitat	None/None/None	2,657.30 acres; acoustically detected	1,062.41	Potentially significant impacts to Western small-footed myotis would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Yuma myotis (*Myotis yumanensis*)	None/None/None	2,657.30 acres; acoustically detected	1,062.41	Potentially significant impacts to Yuma myotis would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Pocketed free-tailed bat (*Nyctinomops femorosaccus*) foraging habitat	None/SSC/None	2,657.30 acres; acoustically detected	1,062.41	Potentially significant impacts to pocketed free-tailed bat would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Big free-tailed bat (*Nyctinomops macrotis*)	None/SSC/None	2,657.30 acres; moderate potential to occur	1,062.41	Potentially significant impacts to big free-tailed bat would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,517.69 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	None/SSC/None	2,630.02 acres; prevalent within project site	1,052.48	Potentially significant impacts to San Diego black-tailed jackrabbit would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,507.06 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	None/SSC/None	2,479.75 acres; prevalent within project site	993.44	Potentially significant impacts to Northwestern San Diego pocket mouse would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,445.16 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.
San Diego desert woodrat (*Neotoma lepida intermedia*)	None/SSC/None	2,072.47 acres; prevalent within project site	782.33	Potentially significant impacts to San Diego desert woodrat would be reduced to less than significant through the proposed project's on-site Habitat Preserve, outlined in Mitigation Measure BIO-1, would provide 1,263.65 acres of suitable habitat in a configuration that preserves genetic exchange and species viability.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Invertebrates				
San Diego fairy shrimp (Branchinecta sandiegonensis)	FE/None/Covered	242 potential features; 72 occupied features[7]	34 occupied features impacted (33 on site and 1 off site).	Potentially significant impacts to 34 features occupied by San Diego fairy shrimp, an MSCP Covered Species, would be significant absent mitigation. Impacts to San Diego fairy shrimp would be reduced to less than significant through Mitigation Measure BIO-12, which would require a Vernal Pool Mitigation Plan for enhancing and restoring 0.50 acre of vernal pool resources, and through the preservation of 38 occupied features (Mitigation Measure BIO-1).
Quino checkerspot butterfly (Euphydryas editha quino)	FE/None/Covered	1,724.71 acres of potential habitat based on the 2009 extrapolation model,[8] 634.55 acres based on the 1-kilometer model (all locations),[9] and 11.21 acres based on the 1-kilometer model (excluding the 2005 location);[10] 1 individual from 2005 (not observed during focused surveys in 2016	581.39 acres of potential suitable habitat (2009 model), 396.53 acres of potential suitable habitat (1-kilometer model), or 3.82 acres of potential suitable habitat (1-kilometer model excluding the 2005 location). See Figures 4.3-6a through 4.3-6c and Table 4.3-8b for Quino checkerspot butterfly impact summary.	Suitable habitat associated with this covered Quino checkerspot butterfly would be directly impacted by project implementation. However, the 2016 focused surveys for this species were negative. The 2009 model (581.39 acres) was used to determine significance for this species. Impacts would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1, which would conserve 1,096.57 acres of suitable habitat; and Mitigation Measure BIO-18, which would restore/enhance suitable habitat within temporary impact areas and through habitat management, including success criteria, specifically for this species.

Table 4.3-8a. Direct Impacts to Special-Status Wildlife Species

Wildlife Species Common Name (Scientific Name)	Regulatory Status: Federal/ State/Draft Santee MSCP Subarea Plan	Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations for Covered Species)	Significance Determination and Mitigation Measures[2]
Hermes copper butterfly (Lycaena hermes)	FC/ None/Covered	148.44 acres;[11] a total of 3 individuals (1 individual per survey year) were observed in 2003, 2004, and 2005 (not observed during focused surveys in 2016)	52.98 acres of suitable habitat; 1 historical location (2004). See Figure 4.3-7 and Table 4.3-8c for Hermes copper butterfly impact summary.	Suitable habitat associated with this covered Hermes copper butterfly would be directly impacted by project implementation. However, the 2016 focused surveys for this species were negative. Impacts are based on the 2004 survey and 2014 and 2016 host plant mapping. Impacts would be reduced to less than significant through the proposed project's on-site Habitat Preserve outlined in Mitigation Measure BIO-1 and Mitigation Measure BIO-18, which would conserve 94.77 acres of potential suitable habitat containing two historical locations.

Notes: MSCP = Multiple Species Conservation Program.

[1] Impacts include permanent, temporary, and proposed trails unless otherwise noted.

[2] Mitigation Measures referred to as "MM" throughout table.

[3] The following criteria was used for western spadefoot habitat modeling: within 984 feet of an occupied features, within vernal pool, non-native grassland, native grassland, or coastal sage scrub, and less than 20 percent slope. Based on occupied features rather than number of records/individuals. Number of occupied features for western spadefoot includes those recorded in 2004, 2005, 2016, and 2017.

[4] The habitat for historical occurrences of coastal cactus wren burned and is in the process of recovery. Five clusters of coastal cactus wrens were observed during surveys in 2017. Clusters rather than individual records were considered for impacts given the localized groups that this species occurs in.

[5] Based on Use Areas documented during 2016 focused surveys. With the exception of one Use Area (impacts are less than 1 acre), only Use Areas 100 percent within the Habitat Preserve are considered preserved. Proposed trails are not considered impacts to Use Areas within the Habitat Preserve.

[6] Records for least Bell's vireo include one from 1997 and a single pair from 2016.

[7] Number of San Diego fairy shrimp includes features that had immature or female brachiopods that could not be identified to species and is based on the protocol-level survey results from 2004, 2004/2005, and 2015/2016.

[8] The model includes areas within 656 feet of mapped host plants within coastal scrub, grassland, vernal pools, disturbed habitat, and non-native vegetation.

[9] This model includes all suitable habitat (i.e., coastal scrub, grassland, vernal pools, and disturbed habitat) within a 1-kilometer buffer around all known Quino checkerspot observations that overlap the project site.

[10] This model includes all suitable habitat (i.e., coastal scrub, grassland, vernal pools, and disturbed habitat) within a 1-kilometer buffer around known Quino checkerspot observations (excluding the 2005 on-site observation) that overlap the project site.

[11] Suitable habitat for Hermes copper butterfly based on presence of redberry buckthorn (*Rhamnus crocea*) within 15 feet of California buckwheat.

Status Legend

FE: Federally Endangered

FT: Federally Threatened

FC: Federal Candidate

BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
SSC: California Species of Special Concern
FP: California Fully Protected Species
WL: California Watch List Species
SE: State Endangered
ST: State Threatened
MSCP: Draft Santee MSCP Subarea Plan (City of Santee 2018)
Covered: Draft Santee MSCP Subarea Plan Covered Species

Table 4.3-8b. Quino Checkerspot Butterfly Impact Summary

Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations)
• Figure 4.3-6a: 1,724.71 acres of potential habitat based on the 2009 extrapolation model[2] • Figure 4.3-6b: 634.55 acres based on the 1-kilometer model (all locations)[3] • Figure 4.3-6c: 11.21 acres based on the 1-kilometer model (excluding the 2005 location)[4] • 1 individual from 2005 (not observed during focused surveys in 2016)	• Figure 4.3-6a: 581.39 acres of potential suitable habitat (2009 model) • Figure 4.3-6b: 396.53 acres of potential suitable habitat (1-kilometer model) • Figure 4.3-6c: 3.82 acres of potential suitable habitat (1-kilometer model excluding the 2005 location) • No impacts to observation locations[5]

Notes:
1 Impacts include permanent, temporary, and proposed trails.
2 The model includes areas within 656 feet (200 meters) of mapped host plants within coastal scrub, grassland, vernal pools, and disturbed habitat.
3 This model includes all suitable habitat (i.e., coastal scrub, grassland, vernal pools, and disturbed habitat) within a 1-kilometer buffer around all known Quino checkerspot observations that overlap the project site.
4 This model includes all suitable habitat (i.e., coastal scrub, grassland, vernal pools, and disturbed habitat) within a 1-kilometer buffer around known Quino checkerspot observations that overlap the project site (excluding the 2005 on-site observation).
5 The one observation on the project site from 2005 is located within an impact neutral area and will not be impacted by the proposed project.

Table 4.3-8c. Hermes Copper Butterfly Impact Summary

Suitable Habitat and Occurrence in Project Site	Impacts[1] (acres/locations)
• Figure 4.3-7: 148.44 acres[2] • A total of 3 individuals (1 individual per survey year) were observed in 2003, 2004, and 2005 (not observed during focused surveys in 2016)	• 52.98 acres of suitable habitat • 1 historic location (2004)

Notes:
1 Impacts include permanent, temporary, and proposed trails unless otherwise noted.
2 Suitable habitat for Hermes copper butterfly based on presence of redberry buckthorn within 15 feet of California buckwheat.

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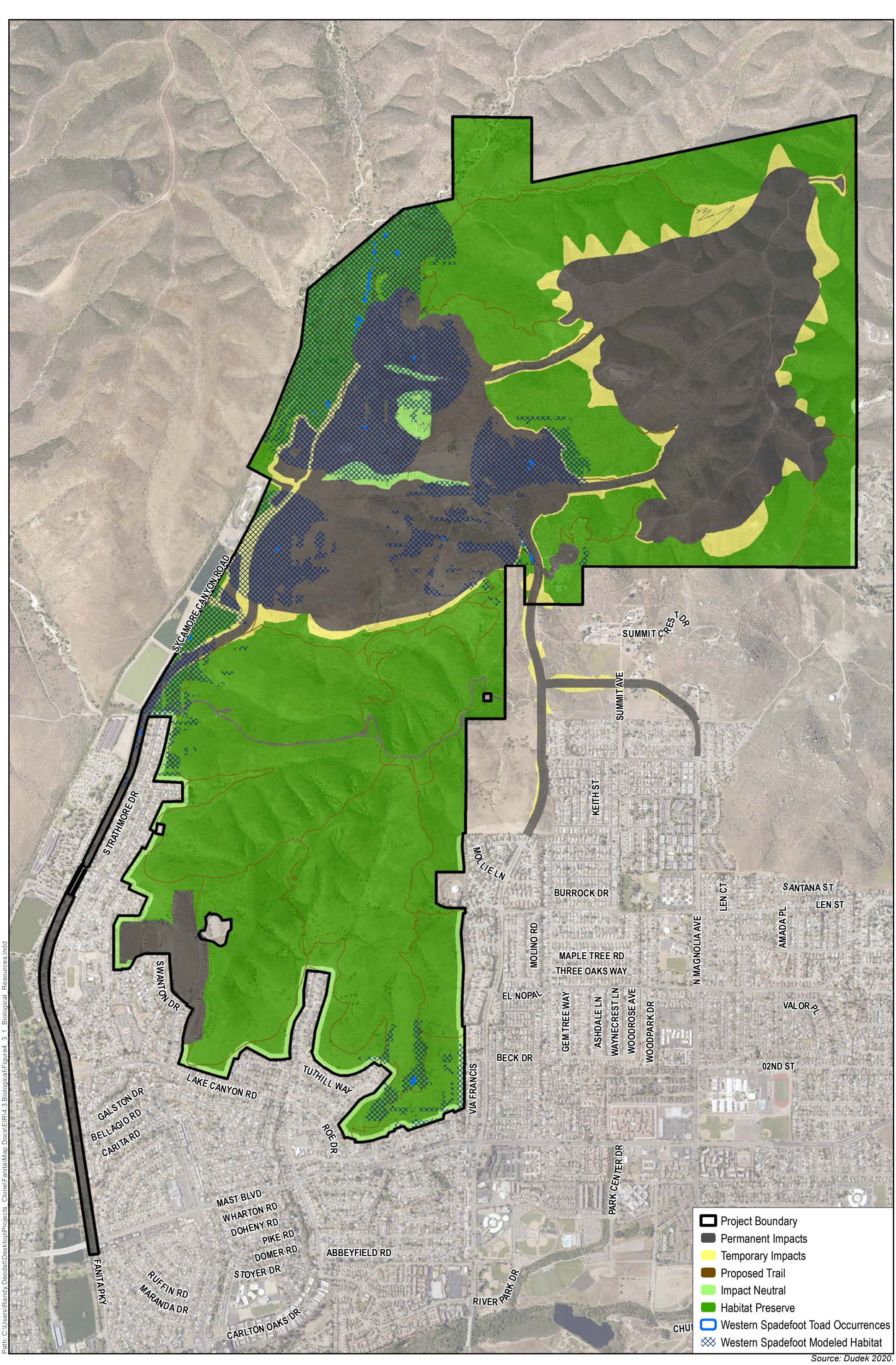

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Source: Dudek 2020.

Harris & Associates

N

0 750 1,500

Feet

Figure 4.3-5

Impacts to Western Spadefoot Toad

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2005
SYCAMORE CANYON ROAD
FANITA PKY
SUMMIT CREST DR
SUMMIT AVE
KEITH ST
STRATHMORE DR
MOLLIE LN
BURROCK DR
LEN CT
SANTANA ST
LEN ST
AMADA PL
MOLINO RD
MAPLE TREE RD
THREE OAKS WAY
N MAGNOLIA AVE
EL NOPAL
GEM TREE WAY
ASHDALE LN
WAYNECREST LN
WOODROSE AVE
WOODPARK DR
VALOR PL
BECK DR
02ND ST
SWANTON DR
FANITA PKY
LAKE CANYON RD
TUTHILL WAY
VIA FRANCIS
GALSTON DR
BELLAGIO RD
CARITA RD
ROE DR
PARK CENTER DR
MAST BLVD
WHARTON RD
DOHENY RD
PIKE RD
DOMER RD
STOYER DR
ABBEYFIELD RD
RUFFIN RD
MARANDA DR
RIVER PARK DR
CARLTON OAKS DR
FANITA PKY

Project Boundary
Permanent Impacts
Temporary Impacts
Proposed Trail
Impact Neutral
Habitat Preserve
Quino Checkerspot Butterfly
Quino checkerspot butterfly modeled habitat

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Source: Dudek 2020.

Harris & Associates

N

0 750 1500
Feet

Figure 4.3-6a

Impacts to Quino Checkerspot Butterfly 1-Kilometer Model (Excluding the 2005 Location)

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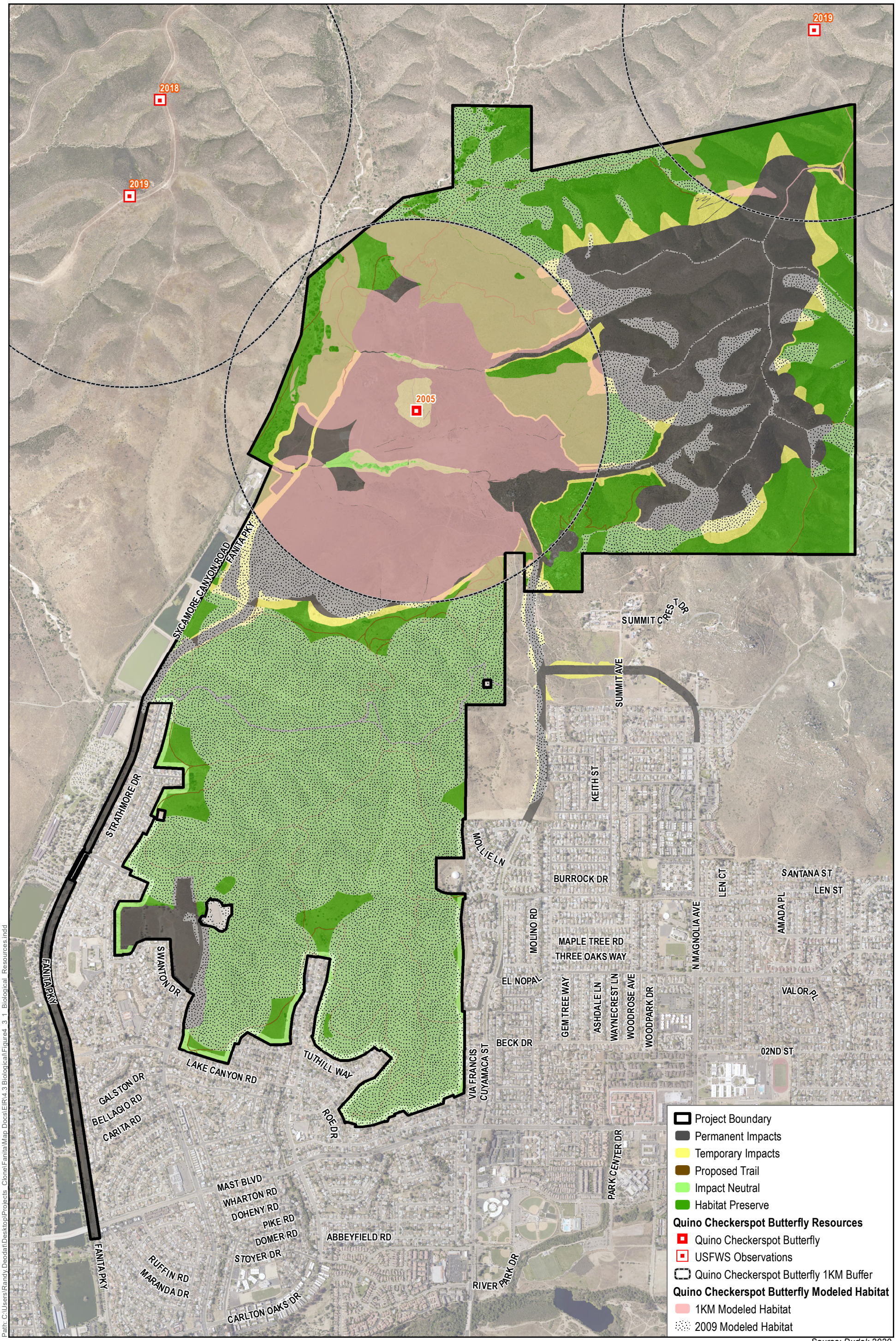

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Source: Dudek 2020.

Harris & Associates

N

0 750 1500

Feet

Figure 4.3-6b

Impacts to Quino Checkerspot Butterfly 1-Kilometer Model (All Locations)

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2019
2018
2019
SYCAMORE CANYON ROAD
FANITA PKY
SUMMIT CREST DR
SUMMIT AVE
KEITH ST
STRATHMORE DR
MOLLIE LN
BURROCK DR
SANTANA ST
LEN ST
LEN CT
AMADA PL
N MAGNOLIA AVE
MOLINO RD
MAPLE TREE RD
THREE OAKS WAY
EL NOPAL
GEM TREE WAY
ASHDALE LN
WAYNECREST LN
WOODROSE AVE
WOODPARK DR
VALOR PL
BECK DR
02ND ST
VIA FRANCIS
CUYAMACA ST
SWANTON DR
TUTHILL WAY
LAKE CANYON RD
GALSTON DR
BELLAGIO RD
CARITA RD
ROE DR
PARK CENTER DR
MAST BLVD
WHARTON RD
DOHENY RD
PIKE RD
DOMER RD
STOYER DR
ABBEYFIELD RD
RUFFIN RD
MARANDA DR
CARLTON OAKS DR
RIVER PARK DR
FANITA PKY

Project Boundary
Permanent Impacts
Temporary Impacts
Proposed Trail
Impact Neutral
Habitat Preserve

Quino Checkerspot Butterfly Resources

USFWS Observations
Quino Checkerspot Butterfly 1KM Buffer

Quino Checkerspot Butterfly Modeled Habitat

Within 1KM Modeled Habitat
2009 Modeled Habitat

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Source: Dudek 2020.

Harris & Associates

N

0 750 1500
Feet

Figure 4.3-6c

Impacts to Quino Checkerspot Butterfly 2009 Model

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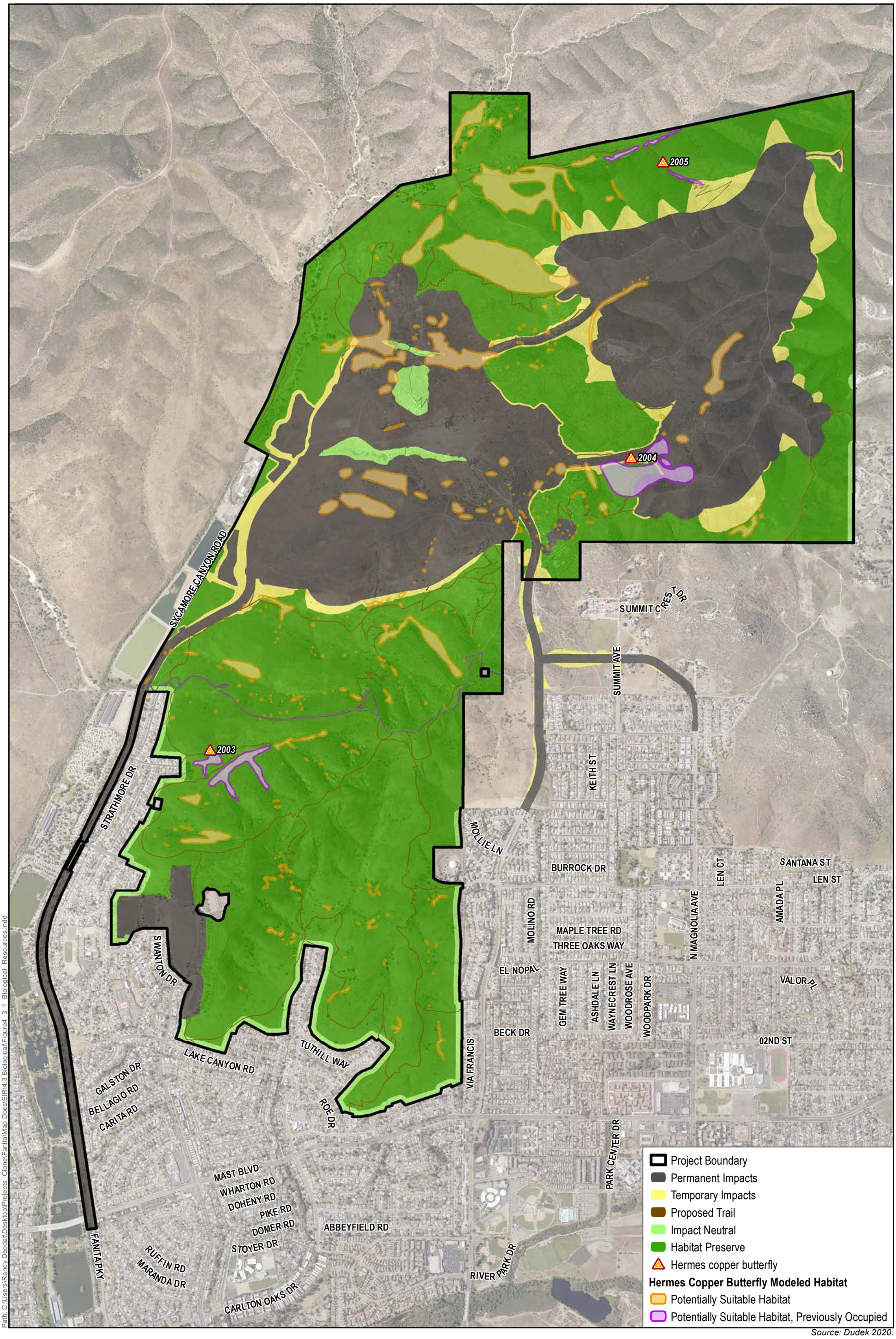

Source: Dudek 2020.

Harris & Associates

N

0 1000 2000

Feet

Figure 4.3-7

Impacts to Hermes Copper Butterfly

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Indirect Impacts. Temporary construction-related indirect impacts to wildlife generally include noise, vibration, lighting, increased human activity, hydrologic and water quality (e.g., chemical pollution, increased turbidity, excessive sedimentation, flow interruptions, and changes in water temperature), and trash and garbage, which can attract predators, such as American crows, common ravens, and coyotes, and mesopredators, such as raccoons and striped skunks. Permanent development-related indirect impacts to wildlife generally include noise, lighting, increased predation or harassment by pet, stray, and feral cats and dogs as well as other mesopredators, invasion by exotic wildlife species, pesticide use, altered fire regimes, and increased roadkill. These temporary construction-related and permanent development-related impacts would have a significant impact on the special-status wildlife species identified in Table 4.3-8.

Due to the probable increase in manicured lawns and decrease in overall open space, there may be increased parasitism of native birds by brown-headed cowbirds (*Molothrus ater*). Parasitism to shrub nesting bird species would be a significant indirect permanent impact. Implementation of the proposed project would result in potentially significant impacts to nesting birds.

Permanent indirect impacts to special-status wildlife species could occur from Argentine ants. Argentine ants are known to displace native insects that are the main prey base for many special-status wildlife species and possibly help promote other non-native invertebrates such as earwigs and sowbugs, which could affect the Quino checkerspot butterfly.

Western spadefoot and San Diego fairy shrimp are generally vulnerable to exotic wildlife (including African clawed frog) and disease (e.g., viruses and chytridiomycosis caused by the chytrid fungus). The lower seasonal basins in the western portion of the project site (typically adjacent to Goodan Ranch/Sycamore Canyon County Preserve) support predatory African clawed frogs. This species could have a negative permanent effect on remaining San Diego fairy shrimp, western spadefoot, and other native amphibians that use the basins as breeding resources and could also have a negative effect on the success of created basins in which they could invade. Implementation of the proposed project would result in potentially significant indirect impacts to western spadefoot and San Diego fairy shrimp.

Project construction could result in temporary construction and permanent development-related indirect impacts to individuals and suitable habitat for reptile species and small mammals. Implementation of the proposed project would result in potentially significant impacts to special-status reptiles and small mammal species.

In addition to general temporary construction-related and permanent development-related indirect effects to host plants on site (e.g., dust, trampling, non-native species), the Quino checkerspot butterfly and Hermes copper butterfly are vulnerable to pesticides that could kill individuals and wildfire that could eliminate host plants and kill individuals, including adults and larvae. Adult

butterflies also would be at risk of habitat fragmentation, isolation and vehicle collisions when dispersing. Wildfires may result in loss of habitat for these species as well. Therefore, implementation of the proposed project would also result in potentially significant indirect impacts to Quino checkerspot butterfly and Hermes copper butterfly.

Permanent development-related indirect impacts may occur to grasshopper sparrow from altered fire regimes. The grasshopper sparrow prefers fairly continuous grassland (preferably native grasslands) for foraging and nesting with occasional taller grasses, forbs, or shrubs for song perches. The reduction or elimination of wildfires on the project site could cause the annual grassland habitat to permanently revert back to scrub habitat and contribute to a potentially significant impact to the grasshopper sparrow.

Mitigation Measures

Sensitive Plant Species

The proposed project would result in direct impacts to covered special-status plant species, including San Diego goldenstar, variegated dudleya, San Diego barrel cactus, and willowy monardella. Permanent and temporary impacts to these species, in both on- and off-site areas, are considered significant and would be reduced to less than significant with implementation of Mitigation Measures BIO-1 and BIO-2. The Preserve Management Plan addresses potential indirect impacts to sensitive plant species from soil erosion, litter, fire, and hydrologic changes occurring within the Habitat Preserve (Mitigation Measure BIO-1). Implementation of Mitigation Measures BIO-1 and BIO-2 would preserve or restore sensitive vegetation communities that provide suitable habitat for these species and provide translocation for certain species. For the purposes of this analysis, it is assumed that this is a Draft Santee MSCP Subarea Plan Covered Project and that impacts to covered narrow endemic species are subject to the narrow endemic species policy identified in the Draft Santee MSCP Subarea Plan, included in the proposed project as Mitigation Measure BIO-3 that requires 100 percent conservation within open space (i.e., hardline preserve) and 80 percent conservation through translocation within permanent impact (i.e., take-authorized) areas. Direct impacts to the non-covered CRPR 1B species Coulter's saltbush would also be subject to the narrow endemic plant species policy (Mitigation Measure BIO-3). Direct impacts to Engelmann oak (five individuals) would be reduced to a less than significant level through Mitigation Measure BIO-4, which would replant seedling oak trees at a 3:1 ratio according to the Draft Santee MSCP Subarea Plan.

Application of Mitigation Measures BIO-5 through BIO-7 would reduce indirect impacts to special-status plant species to a less than significant level through preparing a SWPPP, conducting preconstruction surveys, and implementing standard best management practices and requirements that address erosion and runoff, including the construction-related minimization measures required by the MSCP, federal Clean Water Act, and NPDES.

Mitigation Measure BIO-9 would reduce permanent indirect impacts to special-status plants by planting cactus species in brush management zones, temporary impact areas, and between roadways and open space to help protect against incursions by domestic pets, children, or recreationists. Additionally, Mitigation Measure BIO-10 would require that all herbicides used during landscaping activities be contained within the proposed project's impact footprint and weed control treatments include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County agriculture commissioner. Implementation of Mitigation Measure BIO-11 would establish control measures for, and quarterly monitoring of, Argentine ants along the construction–Habitat Preserve interface to reduce impacts to native ants so that the impact to special-status plant species would be less than significant.

Implementation of Mitigation Measures BIO-1 through BIO-11 would reduce direct and indirect permanent and temporary impacts to sensitive plant species to below a level of significance.

The mitigation measures are as follows:

BIO-1: **Preserve Management Plan.** Within the on-site Habitat Preserve, the applicant shall preserve in perpetuity a total of 1,650.38 acres of on-site Multiple Species Conservation Program open space including 1,518.50 acres within the Habitat Preserve (including 1,448.84 acres of sensitive upland habitats), 10.52 acres of proposed trails, 6.88 acres of San Diego Gas & Electric access road, and 114.47 acres of on-site temporary impacts that shall become part of the Habitat Preserve once restored (see Mitigation Measure BIO-2, Upland Restoration Plan). Preservation of on-site open space requires recordation of a Habitat Preserve conservation easement and in-perpetuity management by the Preserve Manager in accordance with a Preserve Management Plan, which would be funded by an endowment or other acceptable permanent funding mechanism. The Preserve Management Plan includes a combination of active and passive restoration programs to gradually increase biological resources within open space areas through periodic treatments, mainly involving seed application on a landscape level combined with weed control activities.

An example diagram of a Preserve Management Plan is included in the Biological Resources Report for the Fanita Ranch Project (Appendix D), Figure 6-1, Potential Restoration Treatment Areas, and an example diagram of the rotational hexagonal treatment areas is included as Figure 6-2, Habitat Treatment Areas, but the actual distribution of restoration and long-term treatment blocks shall be proposed in the Preserve Management Plan and the restoration plans. As shown in Appendix D, Figure 6-2, Conceptual Habitat Treatment Areas, the Habitat Preserve was divided into Zones A and B. Zone A includes areas that will receive treatment on a rotational basis, whereas Zone B will receive as-needed treatment since this area of the Habitat Preserve is more

intact than in Zone A. Each hexagon is approximately 12 acres and numbered 1 through 8, which represents the year that treatment activities will take place within that hexagon. This would be separate from the treatments occurring from restoration activities associated with the proposed project's temporary impacts. Some of these treatments shall be directed to increase biological resources for specific Covered Species such as Quino checkerspot butterfly, Hermes copper butterfly, coastal California gnatcatcher, and coastal cactus wren. It is anticipated that gradual habitat enhancements shall focus on mapped disturbed habitat and mapped disturbed native vegetation communities such as coastal sage scrub and valley grasslands. The Preserve Management Plan addresses the salvage of individual plants of sensitive species from the project development impact footprint prior to construction and translocation into open space areas.

As outlined in the Preserve Management Plan (Appendix P of the Biological Resources Technical Report for the Fanita Ranch Project), at a minimum, the Preserve Management Plan addresses long-term, permanently funded management for the on-site open space that accomplishes the goal of maintaining appropriate, high-value native plant communities throughout the Habitat Preserve. The Preserve Management Plan addresses management and monitoring of vegetation communities through specific minimum survey and management requirements. Multiple Species Conservation Program-level monitoring is the responsibility of the City of Santee or designee. The Preserve Management Plan discusses appropriate signage and fencing to protect certain sensitive resources, trash receptacle placement, and bicycle access and speed limits in the Habitat Preserve. The Preserve Management Plan also designates and describes all permitted land uses and activities (e.g., trails and utilities) in the open space area and how impacts to preserved vegetation communities shall be avoided and minimized. The Preserve Management Plan includes long-term management and monitoring measures for four covered plant species (variegated dudleya, San Diego goldenstar, willowy monardella, and San Diego barrel cactus) and one sensitive plant species (Coulter's saltbush) to maximize the likelihood of their long-term viability.

As identified in Table 4.3-9, temporary impacts to 116.45 acres (including on- and off-site areas) of sensitive upland vegetation communities are expected with project implementation. All on-site temporary impacts, totaling 114.47 acres, shall become part of the Habitat Preserve once restored, including 110.59 acres of on-site sensitive upland vegetation communities.

Table 4.3-9. Restoration Requirement for Temporary Impacts to Sensitive Upland Vegetation Communities

Vegetation Community	Temporary Impacts (On Site)	Temporary Impacts (Off Site)	Mitigation Ratio [1]	Total Restoration Requirement (Acres)
Scrub and Chaparral				
Diegan Coastal Sage Scrub	33.09	1.33	1:1	34.42
Diegan Coastal Sage Scrub (Disturbed)	4.20	3.28	1:1	7.48
Diegan Coastal Sage Scrub/Valley Needlegrass Grassland	0.50	0.09	1:1	0.60
Diegan Coastal Sage Scrub/Valley Needlegrass Grassland (Disturbed)	1.48	0.94	1:1	2.41
Diegan Coastal Sage Scrub–Baccharis-dominated	0.62	—	1:1	0.62
Granitic Southern Mixed Chaparral	45.53	—	1:1	45.53
Scrub and Chaparral Subtotal	*85.43*	*5.64*	—	*91.07*
Grasslands, Vernal Pools, Meadows, and Other Herb Communities				
Valley Needlegrass Grassland	7.92	—	2:1	15.85
Valley Needlegrass Grassland (Disturbed)	5.84	—	2:1	11.68
Non-Native Grassland	11.40	0.21	1:1	11.61
Grasslands Subtotal	25.16	*0.21*	—	*39.14*
Total Acreage[2]	**110.59**	**5.86**	**—**	**130.21**

[1] Mitigation ratios are based on Table 5-14 in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

[2] Totals may not sum due to rounding.

BIO-2: Upland Restoration Plan. Temporary impacts to sensitive upland vegetation communities occurring in both on- and off-site improvement areas are anticipated to require a total of 130.21 acres of restoration. Temporary impacts shall require restoration in place. A 1:1 ratio of in-place restoration for impacts to native grassland areas (i.e., valley and needlegrass grassland [including disturbed]), in addition to a 1:1 ratio of preservation and/or creation of native grassland within the Habitat Preserve, would satisfy the 2:1 mitigation ratio for impacts to native grassland outlined in Table 5-14 in the Draft Santee Multiple Species Conservation Program Subarea Plan. Restoration and creation of native grassland will have the added benefit of increasing suitable habitat for grasshopper sparrow.

Temporary impact areas shall be restored to the appropriate native vegetation community type. In order to determine the appropriate restored habitat, the Upland Restoration Plan includes an evaluation of restoration suitability specific to proposed vegetation types, soil preparation, plant palettes, irrigation, erosion control, maintenance and monitoring program, and success criteria. All areas shall be monitored for a minimum of 5 years to maximize the likelihood of establishment of intended plant communities. If temporary impact areas are not considered appropriate for restoration of the sensitive native plant community that originally was mapped in that area, these areas shall be considered

permanently impacted and mitigated in conformance with mitigation ratios for permanent impacts to sensitive upland vegetation communities as outlined in Mitigation Measure BIO-1, Preserve Management Plan. There is currently a surplus of approximately 145.51 acres in the Habitat Preserve that would be available to accommodate these additional impacts if deemed necessary. The Upland Restoration Plan is included as Appendix Q in the Biological Resources Report for the Fanita Ranch Project.

BIO-3: Narrow Endemic Plant Species. Mitigation requirements for impacts to special-status plant species proposed under the Draft Santee Multiple Species Conservation Program (MSCP) Subarea Plan shall seek to establish adequate preservation of the species to ensure long-term population stability. The narrow endemic species policy identified in the Draft Santee MSCP Subarea Plan requires 100 percent conservation in open space (i.e., hardline preserve) and 80 percent conservation through translocation in permanent impact (i.e., take-authorized) areas. Based on the current project impacts, two special-status plant species (Coulter's saltbush and San Diego goldenstar) shall require translocation of individuals and/or planting to meet the 80 percent conservation in take-authorized areas. Conservation of Coulter's saltbush, although not a Covered Species, shall be treated in a manner consistent with the narrow endemic policy of the Draft Santee MSCP Subarea Plan. Implementation of this policy ensures adequate conservation of each species in the subarea and regionally in the MSCP Plan area. Mitigation requirements are summarized in Table 4.3-10.

Table 4.3-10. Mitigation Requirements for Impacts to Sensitive Plant Species

Species/Status (Federal/State/CNPS/ Draft Santee MSCP Subarea Plan)	Total Individuals	Individuals Impacted (Percent Impacted)	Habitat Preserve Individuals (Percent Conserved)	Individuals Needed to Meet the 80% Conservation Requirement	Translocation Requirement[1] (Individuals)
Coulter's saltbush (*Atriplex coulteri*)[2] None/None/1B.2/None	65	15 (23%)	50* (77%)	52	2
San Diego goldenstar (*Bloomeria clevelandii*)[2] None/None/1B.1/Covered	18,318	7,964 (44%)	10,354 (56%)	14,654	4,300
Variegated dudleya (*Dudleya variegata*)[3] None/None/1B.2/Covered NE	8,942	786 (9%)	8,156 (91%)	7,154	0
San Diego barrel cactus (*Ferocactus viridescens*)[3] None/None/2B.1/Covered	4,856	585 (12%)	4,270 (88%)	3,885	0
Willowy monardella (*Monardella viminea*) FE/CE/1B.1/Covered	1,622	1** (<1%)	1,621 (99%)	1,298	0

Notes: CNPS = California Native Plant Society; MSCP = Multiple Species Conservation Program.

1 The number of individuals proposed for translocation is the minimum needed to meet 80 percent preservation. It is likely that more individuals will be translocated to ensure translocation success.

2 Species that require translocation to meet 80 percent preservation.

3 This species meets the 80 percent preservation; however, individuals occurring within the impact area will be targeted for collection and translocation.

* It should be noted that these individuals do not occur with the Habitat Preserve. However, since they occur in the impact neutral area and will not be impacted with project implementation, they are considered preserved.

** All impacts to the 49 individuals occurring along existing retained trails and adjacent to proposed trail creation areas would be avoided through the maintenance and management of trails as outlined in the Public Access Plan (Appendix D).

Status Legend

Federal

FE: Federally listed as endangered.

State

CE: State-listed as endangered.

CRPR: California Rare Plant Rank (previously known as the CNPS List)

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

2B: Plants rare, threatened, or endangered in California, but more common elsewhere

4: Plants of limited distribution – a watch list

Threat Rank

.1 – Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)

.2 – Fairly threatened in California (20–80 percent occurrences threatened/moderate degree and immediacy of threat)

Draft Santee MSCP Subarea Plan (City of Santee 2018)

Covered: Draft Santee MSCP Subarea Plan Covered Species

Coulter's saltbush and San Diego goldenstar require translocation or planting of impacted populations in order to adequately mitigate project impacts. Translocation requires evaluation of the donor site for suitability of translocation method and of the receptor site for suitability of sustaining Coulter's saltbush and San Diego goldenstar. The translocation program is detailed in the Upland Restoration Plan and Preserve Management Plan and will be integrated with the overall uplands and wetlands restoration of the project site.

The rare plant mitigation component of the Upland Restoration Plan discusses appropriate methods for plant salvage and/or growing and planting; in general, the impacted population of the sensitive plant shall be targeted for salvage and translocation in order to meet the 80 percent minimum translocation survival rate. Where this is not feasible, germination and growing of appropriate genetic stock shall occur and be planted on site in suitable receptor sites. Success of the translocation program in the receptor sites such that the plant and acreage goals as required in Table 4.3-10 are established shall be measured through 5 years of monitoring and annual reporting to the City of Santee.

BIO-4: **Oak Tree Restoration.** Impacts to 5 individual Engelmann oak trees and 17 individual oak trees in the coast live oak woodland vegetation community shall be mitigated at a ratio of 3:1; that is, three established sleeve-sized seedlings for each mature tree (i.e., oak trees with at least one trunk of 6-inch or more diameter at breast height or multi-trunked native oak trees with aggregate diameter of 10-inch diameter at breast height) to be impacted by the proposed project. Therefore, a total of 66 oak trees shall be planted to meet the 3:1 mitigation ratio requirement. Oak tree restoration shall be included as a component of the Wetland Mitigation Plan (included in the Biological Resources Report for the Fanita Ranch Project as Appendix S) and shall be prepared prior to issuance of grading permits with review and approval by the City of Santee. The oak tree restoration component of the Wetland Mitigation Plan shall be used to guide the oak restoration effort. Replanting shall occur in the general areas where grasslands occur adjacent to existing oak trees and shall be conducted by a City of Santee-approved contractor. "Established" shall be defined as 5 years of sustained life without the assistance of irrigation and growth rates that are similar to those of naturally occurring reference oak trees. In the event the "established" success criteria cannot be achieved, the applicant and the City of Santee shall jointly agree on the implementation of remedial measures to mitigate for impacts to individual oak trees.

BIO-5: **Preconstruction Surveys and Avoidance and Minimization Measures for Special-Status Plant Species.** Within the 13.44 acres of off-site impact areas not previously surveyed along Magnolia Avenue and prior to the commencement of construction activities in suitable habitat, a preconstruction survey shall be conducted in suitable

habitat, determined by the project biologist, to determine whether special-status plants are present in the construction zone or within 50 feet of the construction zone boundary. Focused surveys for special-status plant species shall be conducted by a qualified biologist according to the California Native Plant Society Botanical Survey Guidelines, Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities, and U.S. Fish and Wildlife Service General Rare Plant Survey Guidelines. The preconstruction survey shall be conducted during a period when the target species would be observable and identifiable (e.g., blooming period for annuals). The target species list will include all species observed on the project site and those that have a high to moderate potential to occur in the construction zone or within 50 feet of the construction zone.

Avoidance, Minimization, and Mitigation Measures

If any covered narrow endemic plant species are detected during the preconstruction surveys, impacts would be subject to the narrow endemic species policy (Mitigation Measure BIO-3, Narrow Endemic Plant Species), and the location and number of individuals will be mapped and analyzed. If impacts to any covered narrow endemic species exceeds the threshold for the narrow endemic species policy, the following measures shall be implemented:

1. Special-status plants in the vicinity of the disturbance shall be temporarily fenced or prominently flagged and a 50-foot buffer established around the populations to prevent inadvertent encroachment by vehicles and equipment during the activity.
2. Seeds/bulbs shall be collected and stored in appropriate storage conditions (e.g., cool and dry), and dispersed/transplanted following the construction activity and reapplication of salvaged topsoil.
3. The top 6 inches of topsoil shall be salvaged, stockpiled, and replaced as soon as practicable after project completion. The salvaged topsoil shall be redistributed at the same depth and contoured to blend with surrounding grades.

BIO-6: Land Use Adjacency Guidelines. Mitigation for potential permanent indirect impacts to vegetation communities, wildlife, and jurisdictional resources shall require implementation of Land Use Adjacency Guidelines as specified in the Draft Santee Multiple Species Conservation Program Subarea Plan or the Preserve Management Plan. The City of Santee shall ensure that all project development adjacent to the boundary of the Habitat Preserve adhere to the following adjacency guidelines as outlined in the Draft Santee Multiple Species Conservation Program Subarea Plan:

- **Drainage —** All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, excess water, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem

processes within the preserves. This shall be accomplished using a variety of methods, including natural detention basins, grass swales, or mechanical trapping devices. The project design shall comply with the Standard Urban Stormwater Management Plan such that stormwater flows conveyed from the project site do not adversely affect off-site vegetation communities or jurisdictional resources by significantly altering natural hydrologic patterns.

- **Lighting —** Lighting of all developed areas adjacent to the Habitat Preserve shall be directed away from the Habitat Preserve wherever feasible and consistent with public safety. Low-pressure sodium lighting shall be used whenever possible.
- **Noise —** Uses adjacent to the Habitat Preserve shall be designed to minimize noise impacts. Berms or walls shall be constructed adjacent to commercial areas and any other use that may introduce noises that could affect or interfere with wildlife utilization of the Habitat Preserve.
- **Invasive species —** No invasive non-native plant or wildlife species shall be introduced into areas immediately adjacent to the Habitat Preserve. All open space slopes immediately adjacent to the Habitat Preserve shall be planted with native species that reflect the adjacent native habitat.
- **Buffers —** There are no requirements for buffers outside the Habitat Preserve, except as may be required for wetlands pursuant to federal and/or state permits or by California Environmental Quality Act mitigation conditions.
- **Fuel modification zones —** Fuel modification zones shall be fully contained adjacent to the project's development. Prior to implementing the project development adjacent to the Habitat Preserve, the local fire authority shall review and approve proposed fuel modification treatments to ensure that no new fuel modification will be required within the Habitat Preserve.

Conformance with the Land Use Adjacency Guidelines listed above shall be made a condition of project approval and shall be included in Covenants, Conditions, and Restrictions.

BIO-7: Stormwater Pollution Prevention Plan. The applicant shall prepare a Stormwater Pollution Prevention Plan pursuant to National Pollution Discharge Elimination System General Construction Permit (Water Quality Order 99-08-DWQ). The Stormwater Pollution Prevention Plan shall include, at a minimum, the best management practices listed below. The combined implementation of these requirements shall protect adjacent habitats and special-status species during construction to the maximum extent practicable with the goal of providing multiple beneficial uses. At a minimum, the following measures and/or restrictions shall be incorporated into the Stormwater Pollution Prevention Plan and noted on construction plans, where appropriate, to avoid impacts on special-status species, sensitive vegetation communities, and/or jurisdictional aquatic resources during construction. An

approved biologist (see Mitigation Measure BIO-8, Approved Biologist) shall verify the implementation of the following design requirements:

1. Fully covered trash receptacles that are wildlife-proof and weather-proof shall be installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Littering shall be prohibited, and trash shall be removed from construction areas daily. All food-related trash and garbage shall be removed from the construction sites on a daily basis.
2. Pets on or adjacent to construction sites shall not be permitted by the contractor.
3. Any equipment or vehicles driven and/or operated shall abide by a speed limit of 15 miles per hour during daylight hours and 10 miles per hour during dark hours.
4. Construction activity shall not be permitted in jurisdictional aquatic resources, except as authorized by applicable law and permit(s), including permits and authorizations approved by the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board.
5. Temporary structures and storage of construction materials shall not be located in jurisdictional aquatic resources.
6. Staging/storage areas for construction equipment and materials shall not be located in jurisdictional aquatic resources.
7. Any equipment or vehicles driven and/or operated in jurisdictional aquatic resources, as authorized by applicable law and permit(s), shall be checked and maintained by the operator daily to prevent leaks of oil or other petroleum products that could be deleterious to aquatic life if introduced to the watercourse.
8. No stationary equipment, such as motors, pumps, generators, and welders, or fuel storage tanks, shall be located within jurisdictional aquatic resources.
9. No debris, bark, slash sawdust, rubbish, cement or concrete, or washing thereof; oil; or petroleum products shall occur where it may be washed by rainfall or runoff into jurisdictional aquatic resources.
10. When construction operations are completed, any excess materials or debris shall be removed from the work area according to the conditions outlined in the permit(s).
11. No equipment maintenance shall be performed within or near jurisdictional aquatic resources, where petroleum products or other pollutants from the equipment may enter these areas.

BIO-8: Approved Biologist. To prevent inadvertent disturbance to areas outside the limits of grading, all grading locations shall be monitored by a biologist. Prior to the issuance of any grading permit for areas adjacent to open space, the applicant shall retain a City of Santee-approved biologist for monitoring activities. The biologist shall monitor all grading and other significant ground-disturbing activities in or adjacent to open space areas. The

biologist shall monitor these activities to ensure that the applicant complies with the appropriate standard conditions and mitigation measures, including the following:

1. Prior to the commencement of clearing and grading operations or other activities involving significant soil disturbance, all open space areas shall be identified with temporary fencing or other markers clearly visible to construction personnel.
2. A contractor education program shall be implemented for all workers and subcontractors and shall include a description of environmental restrictions relevant to construction and the penalties for violations. A chain of command and protocol for communicating problems or potential construction changes that may affect biological resources shall be established with the contractor and the City of Santee. Workers shall be made aware of what resources require protection through the use of photos or on-the-ground demonstration.
3. A monitoring biologist acceptable to the City of Santee shall be on site during any clearing of natural vegetation (i.e., annual ground cover, shrubs, or trees). The monitoring biologist shall flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush clearing and earthmoving activities.
4. Following the completion of initial clearing/grading/earthmoving activities, all open space areas to be avoided by construction equipment and personnel shall be marked with temporary fencing and other appropriate markers clearly visible to construction personnel. No construction access, parking, or storage of equipment or materials shall be permitted within such marked areas.
5. In areas bordering the open space area, vehicle transportation routes between cut-and-fill locations shall be restricted to a minimal number consistent with project construction requirements. Waste dirt or rubble shall not be deposited on adjacent protected habitats. Regular preconstruction meetings involving the monitoring biologist, construction supervisors, and equipment operators shall be conducted and documented to ensure maximum practicable adherence to these measures.
6. The monitoring biologist shall verify that the construction site is implementing the following Stormwater Pollution Prevention Plan best management practices:
    a. Dust-control fencing
    b. Removal of construction debris and a clean work area
    c. Covered trash receptacles that are wildlife-proof and weather-proof
    d. Prohibition of pets on the construction site
    e. A speed limit of 15 miles per hour during the daylight hours and 10 miles per hour during nighttime hours

7. Open space areas in the likely dust drift radius of construction areas shall be periodically sprayed with water to reduce accumulated dust on the leaves, as recommended by the monitoring biologist.
8. Oversee the construction site so that cover and/or escape routes for wildlife from excavated areas shall be provided on a daily basis. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighed down by sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and prior to sealing the exposed area) by an approved biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.

BIO-9: **Habitat Preserve Protection.** In order to protect against incursions by domestic pets, children, or recreationists, brush management zones, temporary impact zones between roadways, manufactured slopes in development areas, and open space shall be planted with cactus species, poison oak, stinging nettle, and redberry buckthorn as appropriate. Cactus shall be planted so that it does not hinder fire access but shall be clustered so that it discourages or inhibits encroachment. An added benefit is that these areas eventually could support coastal cactus wren. Suitable areas, acreages, and methods are addressed in the Preserve Management Plan.

BIO-10: **Weed Control Treatments.** Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County of San Diego agriculture commissioner. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a pest control advisor and implemented by a licensed applicator. Where manual and/or mechanical methods are used, disposal of the plant debris shall follow the regulations set by the County of San Diego agriculture commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the pest control advisor, the County of San Diego agriculture commissioner, and the California Invasive Plant Council with the goal of controlling populations before they start producing seeds. Additionally, the herbicides used during landscaping activities shall be contained within the proposed project's impact footprint.

Sensitive Wildlife Species

Mitigation Measures BIO-1, BIO-2, BIO-6 through BIO-8, and BIO-10 through BIO-20 would mitigate all direct and indirect permanent and temporary impacts to sensitive wildlife species to below a level of significance. Table 4.3-8a lists special-status wildlife species that would be subject

to direct impacts from project development and the mitigation measure proposed to reduce the impact to less than significant for each species.

Implementation of Mitigation Measures BIO-6 through BIO-10 and BIO-20 and BIO-21 would reduce indirect impacts to sensitive wildlife species on the project site to a less than significant level through non-invasive herbicide use; conformance with the SWPPP; biological monitoring; signs/fencing; planting of cactus patches, poison oak, and stinging nettle along the development–Habitat Preserve interface; non-invasive herbicide use; and implementation of a Fire Protection Plan.

Impacts to special-status amphibian and reptile species would be reduced to a less than significant level through implementation of Mitigation Measures BIO-1, preserving suitable habitat, and BIO-2, restoring temporary impacts to suitable habitat. Implementation of Mitigation Measure BIO-11 would reduce indirect impacts to native ants to less than significant through control measures and quarterly monitoring of Argentine ants that would occur along the construction–Habitat Preserve interface. In addition, implementation of Mitigation Measures BIO-12 and BIO-13 would reduce impacts to western spadefoot to less than significant requiring a Vernal Pool Mitigation Plan and relocating individuals in impact areas to suitable breeding habitat outside of impact areas. Implementation of Mitigation Measure BIO-19, which would monitor for presence of African clawed frogs within seasonal basins and require eradication if needed, would reduce potential impacts to western spadefoot and San Diego fairy shrimp to a less than significant level.

Impacts to nesting birds would be reduced to a less than significant level through implementation of Mitigation Measures BIO-14, nesting bird surveys; BIO-15, restoring temporary impacts in wetland areas; BIO-16, utilizing a coastal cactus wren management plan; and BIO-17, brown-headed cowbird trapping on the project site.

Impacts to special-status mammal species would be reduced to a less than significant level through implementation of Mitigation Measure BIO-1, management of the Habitat Preserve.

Impacts to special-status invertebrate species would be reduced to a less than significant level through implementation of Mitigation Measures BIO-1, BIO-12, and BIO-18, restoring and enhancing suitable habitat.

Implementation of Mitigation Measures BIO-1, BIO-2, BIO-6 through BIO-10, and Mitigation Measures BIO-11 through BIO-21 would reduce potentially significant direct and indirect impacts to special-status wildlife species to less than significant. The mitigation measures are as follows:

BIO-11: Argentine Ant Control and Monitoring. Upon initiating construction, including landscaping in the development area, quarterly monitoring by a qualified biologist shall be initiated for Argentine ants along the development–Habitat Preserve interface at sentinel locations where invasions could occur (e.g., where moist microhabitats that attract Argentine ants may be created). A qualified biologist shall determine the

monitoring locations. Ant pitfall traps, bait sampling, or similarly appropriate sampling method shall be placed in these sentinel locations and operated on a quarterly basis to detect invasion by Argentine ants. If Argentine ants are detected during monitoring, direct control measures shall be implemented immediately to help prevent the invasion from worsening. These direct controls may include but are not limited to nest/mound insecticide treatment or available natural control methods being developed. A general reconnaissance of the infested area shall also be conducted to identify and correct the possible source of the invasion, such as uncontrolled urban runoff, leaking pipes, or collected water. Quarterly monitoring reports, as needed, shall be submitted to the City of Santee Development Services Department. Monitoring reports shall include remedial recommendations and issue resolution discussions when necessary. Monitoring and control of Argentine ants shall occur in perpetuity and shall be included in the Preserve Management Plan (included as Appendix P in the Biological Technical Report for the Fanita Ranch Project). See Biological Technical Report for the Fanita Ranch Project, Appendix P, for additional details on monitoring methods and control of Argentine ants within the Habitat Preserve.

BIO-12: Vernal Pool Mitigation Plan. A Vernal Pool Mitigation Plan has been prepared and would allow disturbance of seasonal basin features (i.e., natural vernal pools and street ruts containing vernal pool indicator plant and wildlife species). The Vernal Pool Mitigation Plan is subject to approval from the Regional Water Quality Control Board, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service and shall comply with Clean Water Act Section 404 and 401 permit/certification by the U.S. Army Corps of Engineers and Regional Water Quality Control Board, respectively, as well as federal Endangered Species Act requirements. The Vernal Pool Mitigation Plan describes and identifies those areas slated for preservation, rehabilitation and enhancement, and requires the creation of new seasonal basin resources within the Habitat Preserve as mitigation for anticipated development impacts. The Vernal Pool Mitigation Plan is focused on seasonal basin features and associated upland watershed habitat enhancement opportunities and cover the following: vernal pool design and location, planting plan (planting palettes for both vernal pool and upland watershed habitats), and supplemental water program; maintenance and monitoring guidelines; San Diego fairy shrimp and western spadefoot translocation; and ownership arrangements and long-term management strategy.

Natural vernal pools shall be mitigated at a 4:1 ratio, including preservation and management of existing pools, rehabilitation/enhancement of existing features within the Habitat Preserve, and creation of new features. Constructed pools (i.e., artificial features and street ruts) shall be mitigated through rehabilitation/enhancement and/or creation at a 3:1 or 2:1 ratio, depending on whether the feature supports plant or wildlife indicator

species. Rehabilitation/enhancement shall occur in existing features within the Habitat Preserve that are not included as vernal pools (i.e., street ruts lacking vernal pool indicator species). This would entail repairing degraded features through the manipulation of surface topography to improve the overall ecological function of the vernal pool, control of invasive species, and planting of appropriate native species. Creation would consist of establishing new vernal pools in areas where they did not previously occur and/or the returning of areas to a pre-existing condition through manipulation of surface topography to support inundation and ponding for vernal pools. Created features shall exhibit the same or improved characteristics as those within the impact area currently supporting fairy shrimp, indicator vernal pool plant species, and western spadefoot, and shall maintain comparable individual pool sizes and watersheds.

Existing permanently impacted features that support San Diego fairy shrimp and indicator vernal pool plant species shall have the top 1 to 3 inches of soil removed and set aside prior to mass grading. This soil shall be kept in a dry location until it is deposited into the new features. Once the created or enhanced pools are proven to hold water for the appropriate amount of time, they shall be inoculated with the soil from the impacted features. The acreage of surface area that shall be created shall be verified using on-site soil hydrologic properties and modeling of rainfall seasons. The target surface area acreage is 0.50 acre, based on the acreage of impacted features recorded of which 0.40 acre shall need to include creation of new pools (Table 4.3-11). The Vernal Pool Mitigation Plan is included as Appendix R in the Biological Technical Report for the Fanita Ranch Project. This plan may be modified and augmented pending U.S. Army Corps of Engineers, Regional Water Quality Control Board, and wildlife agency (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) review. Table 4.3-11 identifies mitigation requirements for impacts to vernal pools.

Table 4.3-11. Mitigation Requirements for Impacts to Vernal Pools

Vernal Pool Type	Impacts	Mitigation Ratio[1]	Mitigation Acreage	Mitigation Credits (Habitat Preserve)	Total Mitigation Requirement[2] (Acres)
Natural Vernal Pool	0.02	4:1	0.09	0.10	+<0. 01
Street Rut – containing plant indicator species	0.03	3:1	0.08	0.13	+0. 05
Street Rut – containing wildlife indicator species	0.36*	2:1	0.72	0.17	-0.56
Total Acreage	**0.41***	**—**	**0.90**	**0.40****	**0.50**

Notes: Totals may not sum due to rounding.

[1] Mitigation ratios are based on the Draft Santee MSCP Subarea Plan (City of Santee 2018).

[2] Mitigation shall include both rehabilitation/enhancement of existing features within the Habitat Preserve and creation of new features. The exact breakdown by mitigation type shall be included in the Vernal Pool Mitigation Plan.

* This total includes 0.01 acre of off-site impacts.

** This acreage shall be included within the Habitat Preserve and shall be subject to long-term management and monitoring as directed by the Draft Santee Multiple Species Conservation Program Subarea Plan (City of Santee 2018).

BIO-13: Western Spadefoot Relocation. During the wet season prior to clearing or grading operations, biologists shall collect western spadefoot adults from areas within 300 meters of known occupied pools. Adults shall either be held by a U.S. Fish and Wildlife Service or California Department of Fish and Wildlife-approved biologist to be released back onto the site after construction activities using standard methods or be relocated to another area on the project site that has suitable breeding habitat and few or no western spadefoot individuals.

A Western Spadefoot Relocation Plan is included as a component of the Vernal Pool Mitigation Plan (included in the Biological Technical Report for the Fanita Ranch Project as Appendix R) and is subject to approval by the wildlife agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife). The Western Spadefoot Relocation Plan includes, at a minimum, the following elements:

- The timing and methods for surveying, capturing, and releasing adults. Long-term care methods shall also be discussed if this option is used.
- Collection shall occur during the first three or four large rain events of the season. Ideally, these rain events shall produce a minimum of 0.20 inch during a 24-hour period.

BIO-14: Nesting Bird Survey. To avoid impacts to nesting migratory birds and raptors and other nesting birds, which are a sensitive biological resources pursuant to the California Environmental Quality Act, the Migratory Bird Treaty Act, and the California Fish and Game Code, breeding season avoidance shall be implemented and included on all construction plans.

To the extent feasible, there shall be no brushing, clearing and/or grading allowed during the breeding season of migratory birds or raptors (between January 15 and September 15) or coastal California gnatcatcher (between February 15 and August 15). If vegetation is to be cleared during the nesting season, all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by the qualified biologist no earlier than 72 hours prior to clearing. The survey results shall be submitted by the applicant to the City of Santee Director of Development Services. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with an initial 300-foot buffer for coastal California gnatcatcher and up to a 500-foot maximum buffer for raptors. The nests shall be avoided until the nesting cycle is complete or it is determined that the nest has failed. The final appropriate buffer distance, as well as cycle completion or nest failure, shall be determined by an approved biologist. Factors used to determine and guide the appropriate buffer distance shall include individual pair behavior responses, amount of buffering topography, proximity to existing disturbance, and ambient noise levels. In addition, an approved biologist shall be present on the project site to monitor the vegetation removal to ensure that nests not detected during the initial survey are not disturbed (see Mitigation Measure BIO-8, Approved Biologist). If the monitoring biologist determines that the nesting activities are being substantially disrupted by adjacent construction activity, the City of Santee shall be notified, and measures to avoid or minimize such impacts shall be developed. Such measures might include installation of noise barriers, increased buffering, stopping construction in the area, or other measures, as developed.

BIO-15: Wetland Mitigation Plan. A total of 9.81 acres of impacts to jurisdictional resources, including 8.04 acres of permanent impacts and 1.77 acres of temporary impacts, would occur on and off site. Impacts to jurisdictional resources require permits and authorizations by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife prior to impacts. The applicant shall provide the City of Santee with permits and authorizations from each resource agency demonstrating approval of project impacts to aquatic resources prior to the approval of the grading and improvement plans.

A Wetland Mitigation Plan has been prepared and describes the on-site mitigation program to mitigate anticipated temporary and permanent development impacts to waters of the United States and wetland vegetation communities. Both on- and off-site mitigation sites are needed to provide full compensation for project impacts, and therefore, two plans shall be required. The off-site mitigation will provide wetland habitat through a combination of habitat preservation, enhancement, restoration, and creation. With this program, wetland habitat that is comparable in habitat type and quality to the impact area shall be enhanced, restored, or created within the City of Santee's jurisdiction and within the San Diego River and/or its tributaries. The off-site restoration program shall be subject to the same standards

and rules as the on-site mitigation program, including management of access control, invasive species, and native vegetation cover and diversity. Off-site restoration shall include these management efforts and a program of revegetation of wetland species with planting and seeding. The off-site habitat creation shall also include potential topographic alteration to expand and create bed and bank areas appropriate for the establishment of new wetland habitat. At least 7.53 acres of off-site mitigation shall be habitat creation and/or re-establishment. This total is based on the current aquatic resource assessment and impacts, and the no-net-loss requirement in the Draft Santee Multiple Species Conservation Program Subarea Plan. The off-site preservation/enhancement component may occur at the 11-acre parcel, owned by the project applicant, adjacent to the lower Santee Lakes to satisfy the off-site preservation/enhancement requirement. The City of Santee has agreed to allow the remaining off-site creation/re-establishment mitigation component to be completed within City of Santee-owned lands in the same hydrologic unit, next to the San Diego River. Based on preliminary evaluations, several opportunities have been identified to provide off-site mitigation for the remaining creation/re-establishment mitigation component, indicating that it is feasible to accomplish the off-site compensatory mitigation.

The Wetland Mitigation Plan is consistent with the U.S. Army Corps of Engineers' 2008 Compensatory Mitigation Rule and subsequent guidance documents. The Wetland Mitigation Plan shall use the latest available tentative tract map to define the mitigation areas. The Wetland Mitigation Plan provides a description of project impacts and required mitigation at approved replacement ratios. An implementation section includes the different types of wetland mitigation areas including treatments such as soil preparation, plant palettes, and temporary interim erosion control. Plant palettes incorporate sensitive species that will be impacted by the proposed project, as appropriate. A maintenance plan to promote the successful establishment of the target vegetation communities includes the specific activities to be performed over the 5-year maintenance period. A monitoring plan is included that describes performance criteria for each vegetation community, monitoring frequency, and methods. The Wetland Mitigation Plan includes reporting requirements and contingency measures.

Since temporary impact areas are not appropriate for restoration of jurisdictional resources, these areas shall be considered permanently impacted and shall be mitigated in conformance with the mitigation ratios for permanent impacts to jurisdictional resources. Mitigation ratios based on the Draft Santee Multiple Species Conservation Program Subarea Plan shall be included in the Wetland Mitigation Plan. A draft Wetland Mitigation Plan is included as Appendix S in the Biological Technical Report for the Fanita Ranch Project. This plan may be modified and augmented pending U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife review.

BIO-16: Coastal Cactus Wren Habitat Management. Coastal cactus wren is a Covered Species under the Draft Santee Multiple Species Conservation Program Subarea Plan. Because suitable and occupied habitat for this species shall be impacted by grading and construction of the proposed project, habitat enhancement and restoration of coastal cactus wren habitat shall occur. Based on project impacts to 0.57 acre of suitable habitat, a 2:1 mitigation ratio resulting in a total of 1.14 acres of habitat enhancement and restoration would be required for mitigation. This habitat restoration and enhancement is outlined within Upland Restoration Plan (Appendix Q), and the Preserve Management Plan (Appendix P) of the Biological Technical Report for the Fanita Ranch Project. This habitat shall need to be similar in extent and density to currently occupied patches to be impacted and shall show use by coastal cactus wren prior to clearing of currently occupied habitat. Use is minimally intended to prove that impacted coastal cactus wren have identified where these patches are located so that they can colonize them once their current habitat patches are cleared. It is anticipated that restoration and enhancement activities shall begin prior to construction, where practicable, to provide the most amount of time for maturation.

In order to enhance habitat for coastal cactus wren, appropriate areas in the Habitat Preserve shall be planted with coast prickly pear (*Opuntia littoralis*) and coastal cholla (*Cylindropuntia prolifera*) in a matrix that is optimal for coastal cactus wren. Studies performed on the Orange County Central Reserve found that an interstitial mix of cactus and sage scrub or grasslands may be optimal. This ratio has been implemented into the Upland Restoration Plan and Preserve Management Plan where appropriate, but likely, greater than 20 percent 1-meter-high cactus cover associated with *Sambucus mexicana* shall be best. Minimally, three habitat patches shall be planted along primarily southern exposure slopes to increase the amount of suitable nesting habitat for coastal cactus wren outside of the proposed development footprint.

The habitat enhancement program is focused on improving habitat conditions for coastal cactus wren within portions of the project site that are identified for preservation and along manufactured slopes in development areas. Site selection shall be based on the following criteria:

1. Slope aspect (prioritize southern exposures and southwest-facing ridgelines)
2. Habitat quality (prioritize areas where some cacti were present, but with adequate space to support additional cacti to improve habitat quality for coastal cactus wren)
3. Soil conditions (prioritize areas with similar soil conditions compared to occupied cactus scrub habitat)

4. Proximity to occupied cactus patches (prioritize areas that are closer to documented coastal cactus wren occurrences to provide opportunities for dispersal; try to enhance areas within 200 meter to 1,000 meter of occupied habitat)
5. Access (prioritize areas that would be accessible to a planting and maintenance crew)
6. Cactus plantings along manufactured slope areas shall be planted so that they do not hinder fire access but shall be clustered so that they discourage or inhibit encroachment by the public.

The approach to habitat enhancement shall include planting coast prickly pear and cholla by means of pad and segment cuttings in up to 10 selected enhancement areas. Cacti plants take several years to mature to the size that can support coastal cactus wren nesting. Therefore, the planted cuttings may be augmented with larger container plants in a subsequent year after the most successful planting sites can be determined. In addition, future preconstruction salvage of whole cactus plants and pads may be used to further enhance the structure of the cactus patch areas at the time of construction.

It is not expected that all 10 sites shall be successful or perform at equivalent levels. Therefore, a subset of planted areas shall be selected in the second year to focus maintenance efforts on sites with the greatest potential to develop into habitat suitable for coastal cactus wren occupation. The sites that develop into suitable habitat shall be monitored annually for coastal cactus wren use or occupation over a 5-year period in order to maintain a documented record of coastal cactus wren use of targeted areas for enhancement.

This measure shall also incorporate and implement enhancement methods and implementation procedures; a 2-year maintenance, monitoring, and reporting program; and an adaptive management strategy as outlined in the Biological Technical Report for the Fanita Ranch Project.

BIO-17: Brown-Headed Cowbird Trapping. A brown-headed cowbird trapping program shall be initiated on the project site as necessary. The trapping program includes the following: trapping shall begin during the first phase of grading and continue for a period of 15 years or until an alternative control method is developed, which would then replace the trapping program through the 15-year period. The trapping program shall be based on the most current trapping methods. Three traps shall be set at appropriate locations within open space or adjacent to open space on site, though there is flexibility to install one at another location within the City of Santee's sphere of influence (e.g., Santee Lakes Recreation Preserve) that might provide better local and regional benefits (e.g., along a river or creek or at a local equestrian center). Trapping shall be performed between April 1 and August 1 unless 21 days without brown-headed cowbirds occurs, then trapping may end for that year.

In order to establish whether a cowbird trapping program is necessary, focused surveys shall be conducted in and around the Habitat Preserve. A qualified biologist shall survey the Habitat Preserve during February, April, and May of each year during the construction phase through final buildout. If final buildout occurs before 10 years, then at least 10 years of surveys shall be required. During the survey, no single biologist may cover more than 300 acres of Habitat Preserve per day. If 10 or more males or 5 or more females or juveniles are observed on any single occasion, then trapping shall commence. No additional monitoring or trapping shall be required after 10 years even if the brown-headed cowbird occurrence thresholds have not been met. Since there is a small segment of trail designated for equestrian use, monitoring for brown-headed cowbirds is addressed in the Preserve Management Plan (included as Appendix P in the Biological Technical Report for the Fanita Ranch Project) and that area shall be monitored and managed in accordance with that plan, even if the 10-year threshold has been met for the remainder of the Habitat Preserve. Yearly reporting of the trapping results shall be provided with the other Preserve Management Plan reporting and will minimally include the rationale for trap placement, number of target species, non-target species, mortalities of each, sex and age of each as able to be determined, comparison to prior trapping, and suggestions for the following year.

BIO-18: Restoration of Suitable Habitat for Quino Checkerspot Butterfly and Hermes Copper Butterfly. Mitigation for impacts to suitable habitat for Quino checkerspot butterfly shall include a combination of in-perpetuity management of the Habitat Preserve that shall focus on removal of non-native grasses, weedy material, and duff layers and the supplemental planting of dot-seed plantain (*Plantago erecta*), woolly plantain (*Plantago patagonica*), Coulter's snapdragon (*Antirrhinum coulterianum*), rigid bird's beak (*Cordylanthus rigidus*), owl's clover (*Castilleja exserta*), Chinese houses (*Collinsia concolor*), and purple Chinese houses (*Collinsia heterophylla*) so that habitat is more suitable for Quino checkerspot butterfly. This shall include an endowment or other acceptable permanent funding mechanism and documented management plan as outlined in the Preserve Management Plan (included as Appendix P in the Biological Technical Report for the Fanita Ranch Project). Restoration/enhancement and creation of suitable habitat areas shall entail specific standards or guidelines on vegetation management. Tables 4.3-12 through 4.3-14 summarize the mitigation requirement scenarios based on the three potentially suitable habitat models for Quino checkerspot butterfly. Regardless of the model used, approximately 1,096.57 acres of suitable habitat based on the most conservative 2009 extrapolation model shall be managed for Quino checkerspot butterfly and other compatible species such as coastal California gnatcatcher, San Diego fairy shrimp, and Hermes copper butterfly, providing a minimum 1.9:1 mitigation ratio.

Table 4.3-12. Mitigation Scenario Based on the 2009 Extrapolation Model for Impacts to Suitable Habitat for Quino Checkerspot Butterfly

Suitable Habitat Model	Impact Acreage	Mitigation Acreage Credits (Habitat Preserve Suitable Habitat)[1]	Ratio of Mitigation Achieved with On-Site Habitat Preserve
2009 Extrapolation Model	581.39	1,096.57	1.9:1

Notes:
[1] This is the total acreage included within the Habitat Preserve and shall be subject to long-term management and monitoring as directed by the Preserve Management Plan.

Table 4.3-13. Mitigation Scenario Based on the 1-Kilometer Model (All Known Observations) for Impacts to Suitable Habitat for Quino Checkerspot Butterfly

Suitable Habitat Model	Impact Acreage	Mitigation Acreage Credits	Ratio of Mitigation Acheived[1]
1-Kilometer (all known observations)	396.53	218.22*	0.6:1
		878.35**	2.2:1
Total Suitable Habitat in the Habitat Preserve[2]		**1,096.57**	

Notes:
[1] Two mitigation ratios are provided based on (1) the amount of suitable habitat within the 1-kilometer buffer that overlaps the Habitat Preserve and (2) the remaining suitable habitat within the Habitat Preserve (based on the 2009 extrapolation model) outside the 1-kilometer buffer.
[2] This is the total suitable habitat acreage included within the entire Habitat Preserve (based on the 2009 extrapolation model) and shall be subject to long-term management and monitoring as directed by the Preserve Management Plan.
* Mitigation acreage available in the 1-kilometer buffer that overlaps the Habitat Preserve.
** This total represents the amount of remaining suitable habitat available in the Habitat Preserve (based on the 2009 extrapolation model) outside the 1-kilometer buffers.

Table 4.3-14. Mitigation Scenario Based on the 1-Kilometer Model (Without the 2005 Observation) for Impacts to Suitable Habitat for Quino Checkerspot Butterfly

Suitable Habitat Model	Impact Acreage	Mitigation Acreage Credits	Ratio of Mitigation Acheived[1]
1-Kilometer (Without the 2005 Observation)	3.82	7.39*	1.9:1
		1,089.18**	285:1
Total Suitable Habitat within the Habitat Preserve[2]		**1,096.57**	

Notes:
[1] Two mitigation ratios are provided based on (1) the amount of suitable habitat within the 1-kilometer buffer that overlaps the Habitat Preserve and (2) the remaining suitable habitat in the Habitat Preserve (based on the 2009 extrapolation model) outside the 1-kilometer buffer.
[2] This is the total suitable habitat acreage included in the entire Habitat Preserve (based on the 2009 extrapolation model) and shall be subject to long-term management and monitoring as directed by the Preserve Management Plan.
* Mitigation acreage available within the 1-kilometer buffer that overlaps the Habitat Preserve.
** This total represents the amount of remaining suitable habitat available in the Habitat Preserve (based on the 2009 Extrapolation model) outside the 1-kilometer buffer.

As described in the Draft Santee Multiple Species Conservation Program Subarea Plan, impacts to potentially suitable habitat for Hermes copper butterfly requires mitigation by preservation of suitable habitat at a ratio of 1:1, or 2:1 if the suitable habitat was previously occupied. Previously occupied habitat includes areas of potentially suitable habitat within 500 feet of a previously known occurrence of Hermes copper butterfly but where the butterfly was not identified during subsequent and more recent focused surveys. Mitigation of suitable habitat shall be included in the Preserve Management Plan (included as Appendix P in the Biological Technical Report for the Fanita Ranch Project) and occur in

the following ways: preservation and management of existing suitable habitat in the Habitat Preserve, restoration/enhancement of existing suitable habitat in the Habitat Preserve, and creation of new suitable habitat areas in the Habitat Preserve and along manufactured slopes in development areas, as appropriate. Restoration/enhancement and creation of new suitable habitat areas would entail repairing degraded habitat through the control of invasive species and/or planting of appropriate native species (i.e., redberry buckthorn within 15 feet of California buckwheat); see the Upland Restoration Plan included as Appendix Q in the Biological Technical Report for the Fanita Ranch Project for details. Table 4.3-15 summarizes the mitigation requirements for impacts to potentially suitable habitat for Hermes copper butterfly.

Table 4.3-15. Mitigation Requirements for Impacts to Suitable Habitat for Hermes Copper Butterfly

Habitat Type	Impact Acreage	Mitigation Ratio[1]	Mitigation Acreage	Mitigation Acreage Credits (Habitat Preserve)
Redberry Buckthorn within 15 feet of California Buckwheat				
Potentially Suitable Habitat	44.73	1:1	44.73	79.29
Potentially Suitable Habitat, Previously Occupied	8.25	2:1	16.50	15.48
Total Acreage	**52.98**	—	**61.23**	**94.77[2]**

Notes:

[1] Mitigation ratios are based on the Draft Santee Multiple Species Conservation Program Subarea Plan (City of Santee 2018).

[2] This acreage will be included in the Habitat Preserve and will be subject to long-term management and monitoring as directed by the Preserve Management Plan.

BIO-19: African Clawed Frog Trapping. African clawed frogs have been detected in the past within Sycamore Canyon Creek and vernal pool features on the project site. A monitoring and control program is included in the Preserve Management Plan (included as Appendix P in the Biological Technical Report for the Fanita Ranch Project) and designed to determine the presence of African clawed frogs within occupied fairy shrimp and western spadefoot features. Monitoring shall consist of surveying flowing and pooled portions of Sycamore Canyon Creek and restored and natural vernal pool features on the project site once per month from January through April while the proposed project is in construction. After construction is complete, these areas shall be surveyed for African clawed frogs once per year in March. If African clawed frogs are observed during the construction or post-construction monitoring, then control measures shall be implemented. Since different areas may require control each year, yearly updates shall be made as necessary.

BIO-20: Wildlife Protection. In order to generally protect wildlife species, the following measures shall be implemented during construction:

1. Adequate fencing shall be erected to guide human users away from open space areas where open space abuts streets, parks, and trails. Fencing locations shall be shown on the construction plans.
2. Covenants, conditions, and restrictions shall include a section that forbids collection of native wildlife (e.g., coast horned lizards, toads, snakes) without obtaining the necessary collection permits from the California Department of Fish and Wildlife.
3. Covenants, conditions, and restrictions shall include a notice describing the necessary role that coyotes, bobcats, and rattlesnakes have in the environment and shall make recommendations for keeping pets and pet food indoors and safe, and restrictions against controlling these and other native species unless there is a threat to life or property.
4. Covenants, conditions, and restrictions shall include a notice describing the trail and preserve restrictions.
5. Street signs, speed bumps, or other traffic-calming devices shall be employed along the residential collector Streets "V" and "W" to allow wildlife to cross more safely (see Biological Technical Report for the Fanita Ranch Project, Figures 5-7b and 5-7c). The posted speed limit on these streets shall be 25 miles per hour.

BIO-21: Fire Protection Plan. To minimize the potential exposure of the project site to fire hazards, all features of the Fire Protection Plan for the Fanita Ranch Project, prepared by Dudek (2020) and provided as EIR Appendix P1, shall be implemented in conjunction with development of the proposed project.

4.3.5.2 Threshold 2: Riparian Habitat or Other Sensitive Natural Communities

Would the proposed project have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS?

Impact: The proposed project would have potential direct and indirect impacts on riparian and other sensitive natural communities.	**Mitigation:** Preserve Management Plan (BIO-1), Upland Restoration Plan (BIO-2), Land Use Adjacency Guidelines (BIO-6), Stormwater Pollution Prevention Plan (BIO-7), Approved Biologist (BIO-8), Habitat Preserve Protection (BIO-9), Weed Control Treatments (BIO-10), Argentine Ant Control and Monitoring (BIO-11), Vernal Pool Mitigation Plan (BIO-12), Wetland Mitigation Plan (BIO-15).
Significance Before Mitigation: Potentially significant.	**Significance After Mitigation:** Less than significant.

Impact Analysis

Direct Impacts. Implementation of the proposed project would result in permanent impacts to approximately 927.90 acres of sensitive and non-sensitive vegetation communities and land covers on site and temporary impacts to approximately 114.47 acres on site (Table 4.3-16). Of these on site permanent impacts, approximately 10.52 acres would result from new trail creation and retention of some existing trails. The proposed project would also impact a total of 32.60 acres of sensitive and non-sensitive vegetation communities off site, including 25.32 acres of permanent impacts and 7.29 acres of temporary impacts (Table 4.3-17). Refer to Figure 5-1 and Figures 5-1a through 5-1af in Section 5 of the Biological Technical Report for the Fanita Ranch Project (Appendix D) to see the location of impacts to vegetation communities and land cover types. Impacts would occur as a result of the project components listed in Table 3-1, Preferred Land Use Plan Project Component Summary, in Chapter 3, Project Summary, in Appendix D. All temporary impact areas would be revegetated to pre-existing conditions following construction.

Sensitive vegetation communities that would be impacted on site include scrub and chaparral, grasslands, vernal pools, bog and marsh, riparian and bottomland habitat, and woodland communities (Table 4.3-16). Sensitive vegetation communities that would be impacted off site include scrub and chaparral, grasslands, vernal pools, bog and marsh, riparian and bottomland habitat, and woodland communities (Table 4.3-17). Within both on- and off-site areas, the proposed project would permanently or temporarily impact 988.77 acres of sensitive habitats, including 978.54 acres of sensitive uplands, 0.41 acre of vernal pools, and 9.81 acres of wetland habitats. All direct permanent and temporary impacts to sensitive vegetation communities both on and off site are considered significant.

Table 4.3-16. On-Site Impacts to Vegetation Communities and Land Covers

Vegetation Type (Holland/Oberbauer Code)	Impacts		Habitat Preserve	Impact Neutral	Total Acreage	Total Impacts (Percent of Total On-Site Acreage)
	Perm[1]	Temp				
Disturbed and Developed Areas						
Disturbed Habitat (11300)	49.05 (2.18)	2.11	35.54	28.51	115.21	51.16 (2%)
Disturbed Wetland[3] (11200)	0.03	—	0.06	—	0.09	0.03 (<1%)
Non-Native Vegetation (11000)	1.57 (0.01)	—	0.60	3.89	6.05	1.57 (<1%)
Urban/Developed (12000)	9.07 (<0.01)	—	0.81	—	9.88	9.07 (<1%)
Disturbed and Developed Areas Subtotal[2]	*59.71 (2.19)*	*2.11*	*37.01*	*32.40*	*131.23*	*61.82 (2%)*
Scrub and Chaparral						
Diegan Coastal Sage Scrub[3] (32500)	215.13 (3.30)	33.09	751.93	16.98	1,017.13	248.22 (9%)

Table 4.3-16. On-Site Impacts to Vegetation Communities and Land Covers

Vegetation Type (Holland/Oberbauer Code)	Impacts		Habitat Preserve	Impact Neutral	Total Acreage	Total Impacts (Percent of Total On-Site Acreage)
	Perm[1]	Temp				
Diegan Coastal Sage Scrub (disturbed)[3] (32500)	86.23 (1.40)	4.20	168.46	0.97	259.85	90.43 (3%)
Diegan Coastal Sage Scrub (fire recovered)[3] (32500)	4.72	—	1.29	3.56	9.57	4.72 (<1%)
Diegan Coastal Sage Scrub/Valley Needlegrass Grassland[3] (32500/42110)	7.95 (0.15)	0.50	54.36	0.98	63.79	8.45 (<1%)
Diegan Coastal Sage Scrub/Valley Needlegrass Grassland (disturbed)[3] (32500/42110)	18.18 (0.22)	1.48	28.56	2.88	51.10	19.66 (1%)
Diegan Coastal Sage Scrub/Non-native Grassland (disturbed)[3] (32500/42200)	19.18 (0.09)	—	8.28	—	27.47	19.18 (1%)
Diegan Coastal Sage Scrub–Baccharis-dominated[3] (32530)	15.66 (0.01)	0.62	4.74	0.57	21.60	16.29 (1%)
Granitic Southern Mixed Chaparral[3] (37121)	308.95 (0.96)	45.53	246.03	0.55	601.07	354.48 (13%)
Scrub and Chaparral Subtotal[2]	*676.01 (6.14)*	*85.43*	*1,263.65*	*26.49*	*2,051.58*	*761.44 (29%)*
Grasslands, Vernal Pools, Meadows, and Other Herb Communities						
Valley Needlegrass Grassland[3] (42110)	36.69 (0.69)	7.92	64.18	5.04	113.82	44.61 (2%)
Valley Needlegrass Grassland (disturbed)[3] (42110)	22.14 (0.57)	5.84	36.03	0.13	64.14	27.98 (1%)
Non-Native Grassland[3] (42200)	109.46 (1.21)	11.40	81.31	9.49	211.65	120.85 (5%)
Non-native Grassland/Non-native Vegetation (42200/11000)	14.96	—	—	—	14.96	14.96 (1%)
Vernal Pool[3] (44000)	0.39	0.01	0.40	—	0.80	0.40 (<1%)
Grasslands, Vernal Pools, Meadows, and Other Herb Communities Subtotal[2]	*183.63 (2.47)*	*25.17*	*181.91*	*14.65*	*405.36*	*208.80 (8%)*
Bog and Marsh						
Cismontane Alkali Marsh[3] (52310)	—	—	—	0.40	0.40	—
Coastal and Valley Freshwater Marsh[3] (52410)	0.02	—	—	—	0.02	0.02 (<1%)
Coastal and Valley Freshwater Marsh (disturbed) [3] (52410)	0.12	—	—	—	0.12	0.12 (<1%)
Bog and Marsh Subtotal[1]	*0.14*	—	—	*0.40*	*0.54*	*0.14 (<1%)*
Riparian and Bottomland Habitat						
Arundo-Dominated Riparian[4] (65100)	1.47	0.44	0.02	—	1.93	1.91 (<1%)
Mulefat Scrub[3] (63310)	0.15	0.40	1.16	0.16	1.86	0.55 (<1%)

Table 4.3-16. On-Site Impacts to Vegetation Communities and Land Covers

Vegetation Type (Holland/Oberbauer Code)	Impacts		Habitat Preserve	Impact Neutral	Total Acreage	Total Impacts (Percent of Total On-Site Acreage)
	Perm[1]	Temp				
Non-Vegetated Channel or Floodway[3] (64200)	2.94 (0.04)	0.83	5.84	0.22	9.82	3.77 (<1%)
Southern Arroyo Willow Riparian Forest[3] (61320)	—	—	1.54	—	1.54	—
Southern Sycamore–Alder Riparian Woodland[3] (62400)	0.17	0.04	0.96	2.07	3.23	0.21 (<1%)
Southern Willow Scrub[3] (63320)	0.79	0.03	0.04	—	0.86	0.81 (<1%)
Southern Willow Scrub (disturbed) [3] (63320)	0.48	—	—	—	0.48	0.48 (<1%)
Riparian and Bottomland Habitat Subtotal[2]	*5.99 (0.04)*	*1.73*	*9.57*	*2.44*	*19.73*	*7.72 (<1%)*
Woodland						
Coast Live Oak Woodland[3] (71160)	2.42 (0.09)	0.03	26.36	0.82	29.63	2.45 (<1%)
Woodland Subtotal[2]	*2.42 (0.09)*	*0.03*	*26.36*	*0.82*	*29.63*	*2.45 (<1%)*
Sensitive Vegetation (including Wetlands) Subtotal[2]	*852.74 (8.75)*	*112.36*	*1,481.55*	*44.81*	*2,491.44*	*965.09 (39%)*
Grand Total[2]	**927.90 (10.94)**	**114.47**	**1,518.50**	**77.20**	**2,638.07**	**1,042.37 (40%)**

Notes:
1 Acreage in parentheses includes the portion of the total permanently impacted by the proposed trails.
2 Totals may not sum due to rounding.
3 Sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).
4 Since this is a non-native vegetation community, only the portion under CDFW jurisdiction (1.40 acres) is considered sensitive.

Table 4.3-17. Off-Site Impacts to Vegetation Communities and Land Covers

General Vegetation Community/Land Cover Category	Vegetation Type (Holland/ Oberbauer Code)	Off-Site Impacts		Total Off-Site Impacts (% of Total)
		Perm	Temp	
Disturbed and Developed Areas (10000)	Disturbed Habitat (11300)	4.36	1.07	5.43 (14%)
	Urban/Developed (12000)	3.16	0.34	3.50 (9%)
	Disturbed and Developed Areas Subtotal[1]	*7.51*	*1.41*	*8.93 (22%)*
Scrub and Chaparral (30000)	Diegan Coastal Sage Scrub[2] (32500)	4.93	1.33	6.26 (16%)
	Diegan Coastal Sage Scrub (fire recovered)[2] (32500)	0.17	—	0.17 (<1%)
	Diegan Coastal Sage Scrub (disturbed)[2] (32500)	8.70	3.28	11.99 (30%)
	Diegan Coastal Sage Scrub/Valley Needlegrass Grassland[2] (32500/42110)	0.01	0.09	0.10 (<1%)
	Diegan Coastal Sage Scrub/Valley Needlegrass Grassland (disturbed)[2] (32500/42110)	1.44	0.94	2.38 (6%)
	Scrub and Chaparral Subtotal[1]	*15.25*	*5.64*	*20.89 (53%)*
Grasslands, Vernal Pools, Meadows, and Other Herb Communities (40000)	Non-Native Grassland[2] (42200)	2.50	0.21	2.72 (7%)
	Vernal Pool (44000) [2]	0.01	—	0.01 (<1%)
	Grasslands, Vernal Pools, Meadows, and Other Herb Communities Subtotal[1]	*2.52*	*0.21*	*2.73 (7%)*
Riparian and Bottomland Habitat (60000)	Non-Vegetated Channel or Floodway[2] (64200)	0.04	0.02	0.06 (<1%)
	Riparian and Bottomland Habitat Subtotal[1]	*0.04*	*0.02*	*0.06 (<1%)*
	Sensitive Vegetation (including Wetlands) Subtotal[1]	*17.80*	*5.87*	*23.68 (60%)*
	Grand Total[1]	**25.32**	**7.29**	**32.60**

Notes:
[1] Totals may not sum due to rounding.
[2] Sensitive vegetation community in the Draft Santee MSCP Subarea Plan (City of Santee 2018).

Indirect Impacts. Most of the indirect impacts to special-status plant species described in Section 4.3.5.1 also result in potentially significant indirect impacts to riparian habitats and other sensitive natural communities. Indirect impacts to sensitive vegetation communities can result from invasion by exotic species, alteration of the natural fire regime, exposure to urban pollutants (e.g., fertilizers, pesticides, herbicides, and other hazardous materials), and trampling by humans and domestic pets. Permanent indirect impacts to riparian habitats and other sensitive natural communities from development of the proposed project would be potentially significant.

Mitigation Measures

Implementation of Mitigation Measures BIO-1, BIO-2, BIO-6 through BIO-12, and BIO-15 listed in Section 4.3.5.1 would mitigate all direct and indirect permanent and temporary impacts to riparian habitats and other sensitive natural communities to below a level of significance.

Permanent impacts to 862.09 acres (including on- and off-site areas) of sensitive upland vegetation communities are anticipated with project implementation. A total of 1,303.33 acres of mitigation would be required; however, the Habitat Preserve would conserve 1,448.84 acres of sensitive upland vegetation communities, 145.51 acres greater than required by mitigation (refer to the Appendix B, Table 6-2, Mitigation Requirements for Permanent Impacts to Sensitive Upland Vegetation Communities, in the Biological Technical Report for the proposed project). Direct permanent and temporary impacts to sensitive upland communities would be reduced to less than significant with implementation of Mitigation Measures BIO-1 and BIO-2, which would preserve sensitive upland communities within the Habitat Preserve and restore temporary impacts to sensitive upland communities.

Implementation of Mitigation Measures BIO-6 through BIO-8, that include standard best management practices and other requirements that address erosion and runoff, specifically the construction-related minimization measures required by the federal Clean Water Act, NPDES, and preparation of a SWPPP, would reduce indirect impacts to sensitive natural communities to a less than significant level.

Mitigation Measure BIO-9 would reduce permanent indirect impacts to sensitive vegetation communities by planting cactus species in brush management zones, temporary impact areas and between roadways and open space to help protect against incursions by domestic pets, children, or recreationists. Additionally, Mitigation Measure BIO-10 would require that all herbicides used during landscaping activities be contained within the proposed project's impact footprint and weed control treatments include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County.

Implementation of Mitigation Measure BIO-11 would reduce permanent indirect impacts to special-status plant and wildlife species from Argentine ants to a less than significant level. This measure requires control measures and quarterly monitoring of Argentine ants along the construction–Habitat Preserve interface.

Impacts to vernal pools would be mitigated to a less than significant level through implementation of Mitigation Measure BIO-12, which would require rehabilitation or enhancement and creation of new seasonal basin resources within the Habitat Preserve.

Direct permanent and temporary impacts to wetland vegetation communities would be reduced to less than significant through implementation of Mitigation Measure BIO-15, which would require mitigation and permits from the agencies that have jurisdiction over them (i.e., ACOE, RWQCB, and/or CDFW). Indirect impacts related to water quality would be less than significant as described in Section 4.9, Hydrology and Water Quality.

Implementation of Mitigation Measure BIO-15 would utilize a Wetland Mitigation Plan to restore temporary impacts in wetland areas and reduce impacts to sensitive riparian and wetland vegetation communities to less than significant. Therefore, implementation of Mitigation Measures BIO-1, BIO-2, BIO-6 through BIO-12, and BIO-15 would mitigate all direct and indirect permanent and temporary impacts to riparian habitats and other sensitive natural communities to below a level of significance.

4.3.5.3 Threshold 3: Wetlands

Would the proposed project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact: The proposed project would have potential direct and indirect impacts on protected wetlands and other jurisdictional waterways.	**Mitigation:** Land Use Adjacency Guidelines (BIO-6), Stormwater Pollution Prevention Plan (BIO-7), Weed Control Treatments (BIO-10), Wetland Mitigation Plan (BIO-15).
Significance Before Mitigation: Potentially significant.	**Significance After Mitigation:** Less than significant.

Impact Analysis

Direct Impacts. On- and off-site wetland vegetation is described in Section 4.3.1.3. Many of these areas are subject to ACOE jurisdiction pursuant to Section 404 of the Clean Water Act, as well as CDFW and RWQCB jurisdictions. Impacts to jurisdictional aquatic resources would occur as a result of the proposed project as shown on Figure 4.3-8, Impacts to Jurisdictional Aquatic Resources, and summarized in Table 4.3-18. The proposed project would result in potentially significant impacts to jurisdictional areas both on and off site.

Impacts to jurisdictional aquatic resources on the project site would be avoided and minimized through project design to the extent feasible. Nevertheless, potentially significant impacts to jurisdictional resources would occur with project implementation. In total, direct impacts to 9.81 acres (67,410 linear feet) of jurisdictional resources under the jurisdiction of the ACOE, RWQCB, and CDFW are expected with project implementation. These impacts consist of 1.83 acres (2,903 linear feet) of on-site wetland waters of the United States or state and riparian habitat; 3.82 acres (60,549 linear feet) of non-wetland waters of the United States, waters of the state, and CDFW streambeds (0.05-acres that are off site); and 0.02 acre (64 linear feet) of on-site non-wetland waters of the United States, waters of the state, and CDFW riparian habitat. In addition to these impacts, another 4.15 acres (3,895 linear feet) of riparian habitat on site under only CDFW jurisdiction would be impacted with project development. Table 4.3-18 identifies impacts to jurisdictional aquatic resources, which would require permits and authorizations from the ACOE, CDFW, and RWQCB.

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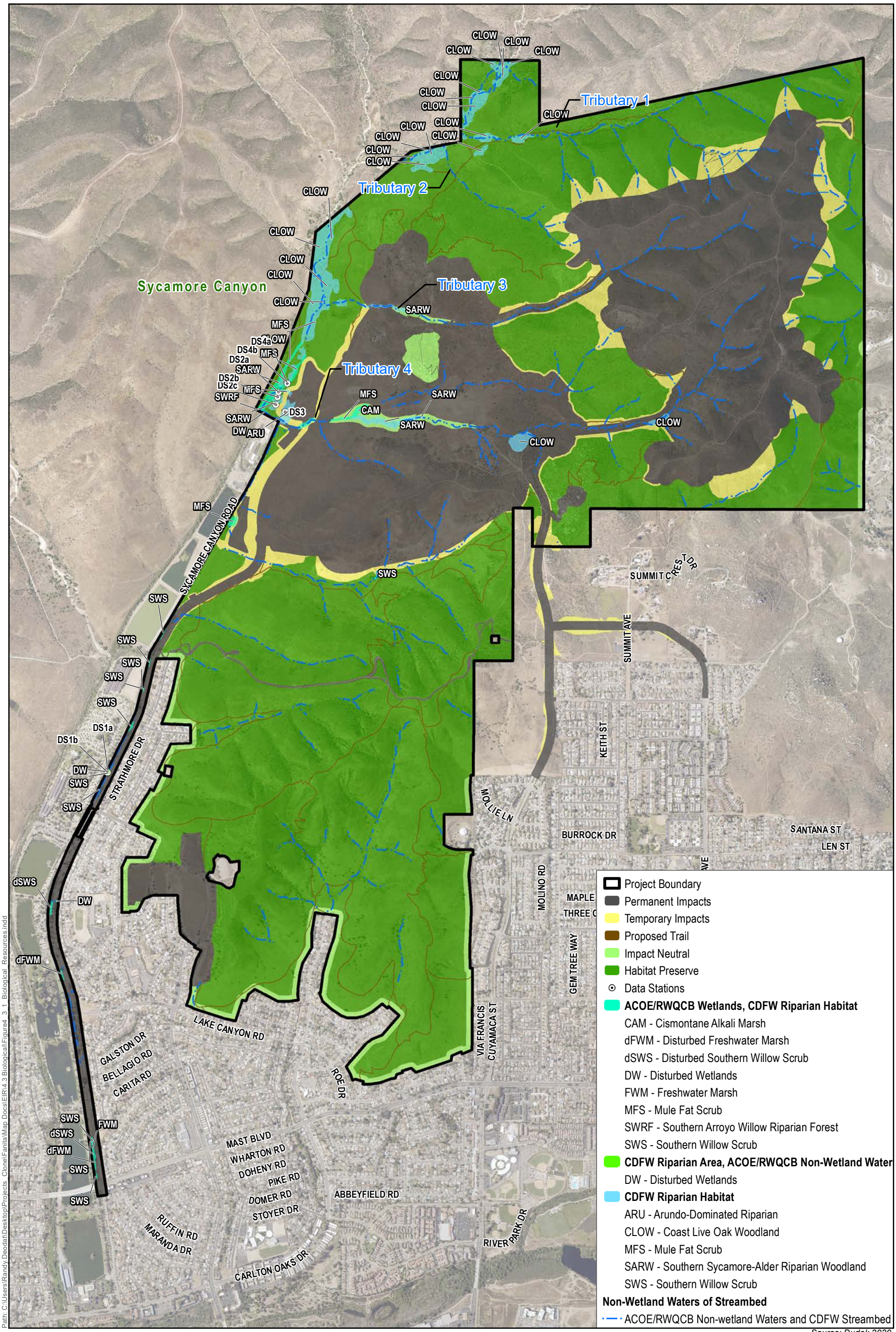

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Figure 4.3-8

Impacts to Jurisdictional Aquatic Resources

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Table 4.3-18. Impacts to Jurisdictional Aquatic Resources

Wetlands Vegetation Community	Impacts Acreage (linear feet)				Total Acres (linear feet)[1]	Total Impacts (linear feet)[1] (Percent of Total)
	On Site		Off Site			
	Perm[1]	Temp	Perm	Temp		
ACOE/RWQCB Wetlands and CDFW Riparian Areas						
Cismontane Alkali Marsh	—	—	—	—	0.40 (356)	0 (0) (0%)
Disturbed Wetlands	0.01 (57)	—	—	—	0.07 (145)	0.01 (57) (14%)
Coastal and Valley Freshwater Marsh	0.02 (52)	—	—	—	0.02 (52)	0.02 (52) (100%)
Disturbed Coastal and Valley Freshwater Marsh	0.12 (346)	—	—	—	0.12 (346)	0.12 (346) (100%)
Mulefat Scrub	0.11 (243)	0.34 (474)	—	—	1.73 (2,466)	0.45 (717) (26%)
Southern Arroyo Willow Riparian Forest	—	—	—	—	1.54 (1,416)	0 (0) (0%)
Southern Willow Scrub	0.72 (1,228)	0.03 (100)	—	—	0.79 (1,573)	0.74 (1,329) (94%)
Disturbed Southern Willow Scrub	0.48 (402)	—	—	—	0.48 (402)	0.48 (402) (100%)
ACOE/RWQCB Wetlands and CDFW Riparian Areas Subtotal[1]	*1.46 (2,328)*	*0.37 (574)*	—	—	*5.16 (6,756)*	*1.83 (2,903) (35%) (4% of the total jurisdictional area)*
ACOE/RWQCB Non-Wetland Waters and CDFW Streambed						
Non-Vegetated Channel or Floodway	2.94 (45,416)	0.83 (14,021)	0.04 (744)	0.02 (368)	9.88 (130,160)	3.82 (60,549) (39%)
ACOE/RWQCB Non-Wetland Waters and CDFW Riparian Habitat						
Disturbed Wetlands	0.02 (64)	—	—	—	0.02 (64)	0.02 (64) (100%)
CDFW-Only Riparian Habitat						
Arundo-Dominated Riparian	0.95 (1,046)	0.44 (459)	—	—	1.40 (1,571)	1.38 (1,505) (100%)
Coast Live Oak Woodland	2.37 (935)	0.03 (42)	—	—	25.08 (12,709)	2.40 (978) (10%)
Mulefat Scrub	0.04 (87)	0.06 (86)	—	—	0.13 (225)	0.10 (174) (77%)
Southern Sycamore–Alder Riparian Woodland	0.17 (967)	0.04 (175)	—	—	3.23 (3,958)	0.21 (1,142) (6%)
Southern Willow Scrub	0.07 (96)	—	—	—	0.07 (96)	0.07 (96) (100%)

Table 4.3-18. Impacts to Jurisdictional Aquatic Resources

Wetlands Vegetation Community	Impacts Acreage (linear feet)				Total Acres (linear feet)[1]	Total Impacts (linear feet)[1] (Percent of Total)
	On Site		Off Site			
	Perm[1]	Temp	Perm	Temp		
CDFW-Only Riparian Habitat Subtotal	*3.59 (3,132)*	*0.56 (762)*	—	—	*29.91 (18,558)*	*4.15 (3,895) (14%) (9% of the total jurisdictional area)*
Total[1]	**8.00 (50,941)**	**1.76 (15,385)**	**0.04 (744)**	**0.02 (368)**	**44.97 (155,539)**	**9.81 (67,410) (22%)**

Notes: ACOE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.
[1] Totals may not sum due to rounding.

Indirect Impacts. Many of the potential temporary and permanent indirect impacts to sensitive plants and vegetation communities described in Sections 4.3.5.1 and 4.3.4.2 also apply to jurisdictional aquatic resources. Potential temporary indirect impacts to jurisdictional resources on and off site would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust, changes in hydrology resulting from construction (including sedimentation and erosion), and the introduction of chemical pollutants (including herbicides).

Long-term indirect impacts could result from the proximity of the proposed project to jurisdictional resources after construction. Permanent indirect impacts that could affect jurisdictional resources include generation of fugitive dust, habitat fragmentation, chemical pollutants, altered hydrology, non-native invasive species, increased human activity, alteration of the natural fire regime, and shading. Indirect impacts to jurisdictional resources would be potentially significant.

Mitigation Measures

The implementation of Mitigation Measures BIO-6, BIO-7, BIO-10, and BIO-15 would reduce project impacts to wetland resources to below a level of significance.

Mitigation for potential permanent indirect impacts to jurisdictional resources requires conformance with the Land Use Adjacency Guidelines as specified in the Draft Santee MSCP Subarea Plan, as required by Mitigation Measure BIO-6. The guidelines include control of urban runoff, toxins and pollutants, public activities in open space, and deliberate planting of exotic invasive species, which would be required by implementation of Mitigation Measure BIO-7. As required by Mitigation Measure BIO-7, a Standard Urban Stormwater Management Plan would be prepared in compliance with the federal Clean Water Act, NPDES, and SWPPP such that storm flows conveyed from the project site do not adversely affect off-site jurisdictional resources by significantly altering natural hydrologic patterns. Additionally, Mitigation Measure BIO-10 would reduce impacts to jurisdictional resources by requiring that all herbicides used during landscaping activities be contained within the proposed project's impact footprint and weed control treatments

include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County agriculture commissioner. Indirect impacts related to water quality would be less than significant as described in Section 4.9.

Permanent and temporary impacts to 9.81 acres (including on- and off-site areas) under ACOE, RWQCB, and CDFW jurisdiction are expected with project implementation. A total of 24.07 acres of mitigation would be required based on mitigation ratios set forth in the Draft Santee MSCP Subarea Plan (City of Santee 2018). The Habitat Preserve would conserve 32.31 acres, the majority of which could only be used for the preservation component of the mitigation requirement (see the Wetland Mitigation Plan [included in Appendix S to the Biological Technical Report for the Fanita Ranch Project] for details). Table 4.3-19 summarizes the proposed project's temporary and permanent impacts and required mitigation ratios.

Table 4.3-19. Mitigation Requirements for Impacts to Jurisdictional Aquatic Resources

Wetlands Vegetation Community	Permanent Impact Acreage (linear feet)	Temporary Impact Acreage (linear feet)	Total Impact Acreage	Mitigation Ratio [1,2]	Total Mitigation Requirement (Acres)	Habitat Preserve Mitigation Credit Acreage (linear feet)
ACOE/RWQCB Wetlands and CDFW Riparian Areas						
Disturbed Wetlands	0.01 (57)	—	0.01 (57)	2:1	0.02	0.06 (89)
Coastal and Valley Freshwater Marsh	0.02 (52)	—	0.02 (52)	2:1	0.05	—
Disturbed Coastal and Valley Freshwater Marsh	0.12 (346)	—	0.12 (346)	2:1	0.24	—
Mulefat Scrub	0.11 (242)	0.34 (474)	0.45 (717)	3:1	1.35	1.13 (1,381)
Southern Arroyo Willow Riparian Forest	—	—	—	3:1	—	1.54 (1,416)
Southern Willow Scrub	0.72 (1,228)	0.03 (100)	0.74 (1,329)	3:1	2.23	0.04 (244)
Disturbed Southern Willow Scrub	0.48 (402)	—	0.48 (402)	3:1	1.45	—
ACOE/RWQCB/CDFW Subtotal	*1.46 (2,328)*	*0.37 (574)*	*1.83 (2,903)*	—	*5.33*	*2.78 (3,129)*
ACOE/RWQCB Non-Wetland Waters and CDFW Streambed						
Non-Vegetated Channel or Floodway	2.98 (46,160)	0.85 (14,389)	3.82 (60,549)	2:1	7.64	5.84 (67,011)
ACOE/RWQCB Non-Wetland Waters and CDFW Riparian Habitat						
Disturbed Wetlands	0.02 (64)	—	0.02 (64)	2:1	0.03	—
CDFW-Only Riparian Habitat						
Arundo-Dominated Riparian	0.95 (1,046)	0.44 (459)	1.38 (1,505)	2:1	2.77	0.02 (66)
Coast Live Oak Woodland	2.37 (935)	0.03 (42)	2.40 (978)	3:1	7.19	22.68 (11,731)
Mulefat Scrub	0.04 (87)	0.06 (86)	0.10 (174)	3:1	0.29	0.03 (51)
Southern Sycamore–Alder Riparian Woodland	0.17 (967)	0.04 (175)	0.21 (1,142)	3:1	0.62	0.96 (979)
Southern Willow Scrub	0.07 (96)	—	0.07 (96)	3:1	0.20	—
CDFW-Only Subtotal	*3.59 (3,132)*	*0.56 (762)*	*4.15 (3,895)*	—	*11.07*	*23.70 (12,827)*
Total Acreage	**8.04 (50,941)**	**1.77 (15,385)**	**9.81 (67,410)**	—	**24.07**	**32.31 (82,967)**

Notes: ACOE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife. Acreages may not add due to rounding.

[1] Mitigation ratios are based on the Draft Santee MSCP Subarea Plan (City of Santee 2018).

[2] Temporary impacts would occur from the grading buffer and manufactured slopes, which are unlikely to provide in-place restoration. Therefore, temporary impacts shall be considered permanent and mitigated accordingly.

As described in Section 4.3.5.1, Mitigation Measure BIO-15 would require implementation of a Wetland Mitigation Plan to reduce permanent and temporary impacts to wetlands under the jurisdiction of ACOE, RWQCB, and CDFW to below a level of significance. Mitigation ratios based on the Draft Santee MSCP Subarea Plan included in Table 4.3-19 shall be included in the Wetland Mitigation Plan.

As described herein, implementation of Mitigation Measures BIO-6, BIO-7, BIO-10, and BIO-15 would reduce impacts to jurisdictional wetlands to a less than significant level.

4.3.5.4 Threshold 4: Native Resident or Migratory Fish or Wildlife Species

Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory corridors, or impede the uses of native wildlife nursery sites?

Impact: The proposed project would potentially interfere with wildlife movement corridors and impede movement by native species.	**Mitigation:** Preserve Management Plan (BIO-1), Land Use Adjacency Guidelines (BIO-6), Habitat Preserve Protection (BIO-9), Weed Control Treatments (BIO-10), Wildlife Protection (BIO-20), Wildlife Corridor (BIO-22), Wildlife Undercrossings (BIO-23).
Significance Before Mitigation: Potentially significant.	**Significance After Mitigation:** Less than significant.

Impact Analysis

Direct Impacts. Currently the entire project site functions as both live-in habitat for a wide variety of large and small wildlife, and functions as partial territory for the largest of mammals (i.e., mountain lion, mule deer, bobcat, and coyote). The entire project site allows for wildlife movement without distinct wildlife corridors and habitat linkages. The project site does not provide habitat for migratory fish species. The project site also acts as a movement corridor (e.g., Sycamore Canyon) between County open space, MCAS Miramar, and Santee Lakes Recreation Preserve, as shown on the City's Draft MSCP Subarea Plan Preserve Areas Map (City of Santee 2018, Figure 4-3).

Wildlife corridors are intended to allow for genetic flow of microfauna and macrofauna at a landscape level. This intent is well outlined within the MSCP and the Draft Santee MSCP Subarea Plan. Because the Draft Santee MSCP Subarea Plan focuses on conservation of habitat on an ecosystem level, the preserve design of the Plan established planning goals regarding corridors within each subunit. The primary preserve goals for the Fanita Ranch Subunit are discussed in Section 4.3.2.3.

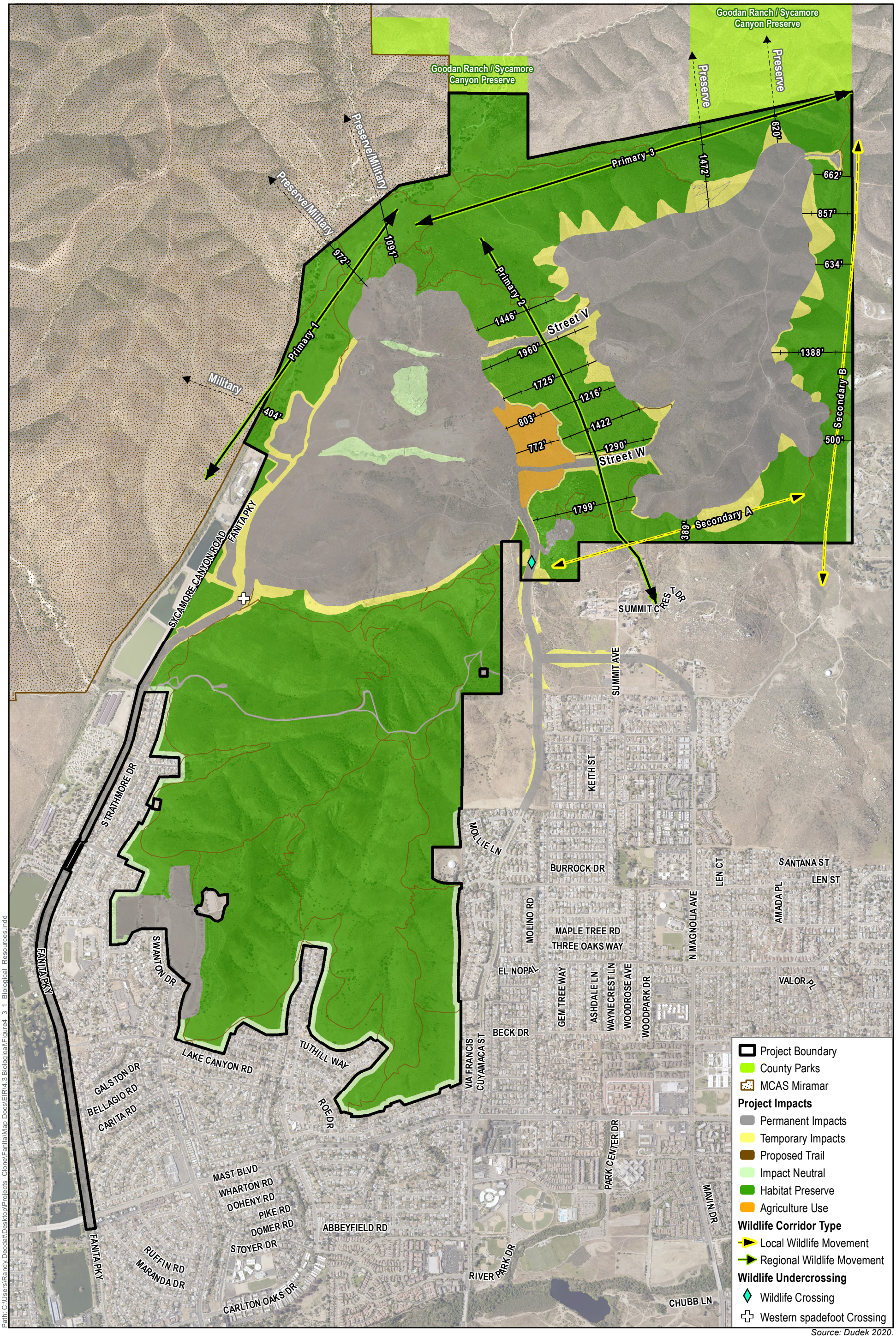
Wildlife corridors have been designated through MSCP planning in the Draft Santee MSCP Subarea Plan, including the project site as a habitat block that promotes wildlife movement. Whether or not the Draft Santee MSCP Subarea Plan is implemented, these areas would be important connections for wildlife between areas east, west, and north of the project site in a post-project scenario. Two locations pass through the western portion of the project site to MCAS Miramar, one connects the northeastern portion of the project site to lands within the County, and another crosses to the north to lands within the County (City of Santee 2018, Figure 4-3). As a result, there would be direct impacts to habitat linkages and wildlife corridors as a result of proposed project development.

Figure 4.3-9, Local Wildlife Corridors, shows the proposed corridors and connections for local and regional wildlife movement. The proposed project design provides for a primary wildlife corridor through the north-central portions of the proposed project, with a minimum width of 1,150 feet. This criterion meets generally accepted wildlife movement principles and Draft Santee MSCP Subarea Plan Guidelines. An additional corridor exists along the northern boundary of the project site, which is mostly 1,400 or more feet wide and buffers a canyon. It narrows to 619 feet for approximately 800 feet, but this area is adjacent to protected and managed County of San Diego Park Preserve lands. The entire northern edge buffers existing protected preserve lands to the north, which meets the Draft Santee MSCP Plan Guidelines. To the west, a large corridor buffering Sycamore Canyon Creek is provided. This corridor is between 1,000 and 400 feet wide (at the detention basin which could also be used for movement), but is further widened by the adjacent military base and conserved preserve areas along the entire boundary (Figure 4.3-9).

Figure 4.3-10, Regional Wildlife Corridors, identifies local and regional wildlife corridors within 5 miles of the project site. The open space configuration for the proposed project would maintain connectivity to the north into the Goodan Ranch/Sycamore Canyon County Preserve, to the east into open space County lands, and to the west into MCAS Miramar open space (which contains over 3,000 acres of coastal sage scrub and 9,000 acres of chaparral). All three corridors lead to, or buffer, a regional corridor along Sycamore Canyon. Therefore, the landscape-scale habitat connections for regional wildlife movement would not be substantially affected. Depending on future development within the adjacent County lands to the east, the proposed project would provide another secondary wildlife corridor, varying in width from 508 feet to 1,400 feet, along the eastern boundary currently adjacent to extant habitat areas (Figure 4.3-10).

After buildout of the proposed project, wildlife movement to the portion of the open space Habitat Preserve in the southern portion of the project site may be constrained by village development to the north and the streets that would border the open space to the west (Fanita Parkway extension and improvements) and to the east (Cuyamaca Street extension and improvements). In addition, wildlife movement to and from the central portion of the Habitat Preserve northeast of the proposed Farm (labeled "Agriculture Use" on Figure 4.3-9) would be constrained by the two, main proposed east–west traversing streets (Streets "V" and "W") that would connect the village development. To avoid hindering wildlife movement at interior Streets "V" and "W," as well as the Cuyamaca Street extension, a wildlife undercrossing would be constructed approximately 400 feet south of the project limits along Cuyamaca Street to adequately convey coyotes, mule deer, and smaller-sized wildlife using existing or manufactured topography. The proposed crossing, which would measure 6.9 meters (22.5 feet) wide by 3.7 meters (12.0 feet) tall by 35.0 meters (115 feet) long (0.7 openness ratio[1]), would meet the suggested 0.6 openness ratio suggested for mule deer and other large mammals in Southern California.

[1] The ACOE defines a culvert's openness ratio as the culvert's cross-sectional area divided by its length. This is calculated in meters.



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Source: Dudek 2020.

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Figure 4.3-9

Local Wildlife Corridors

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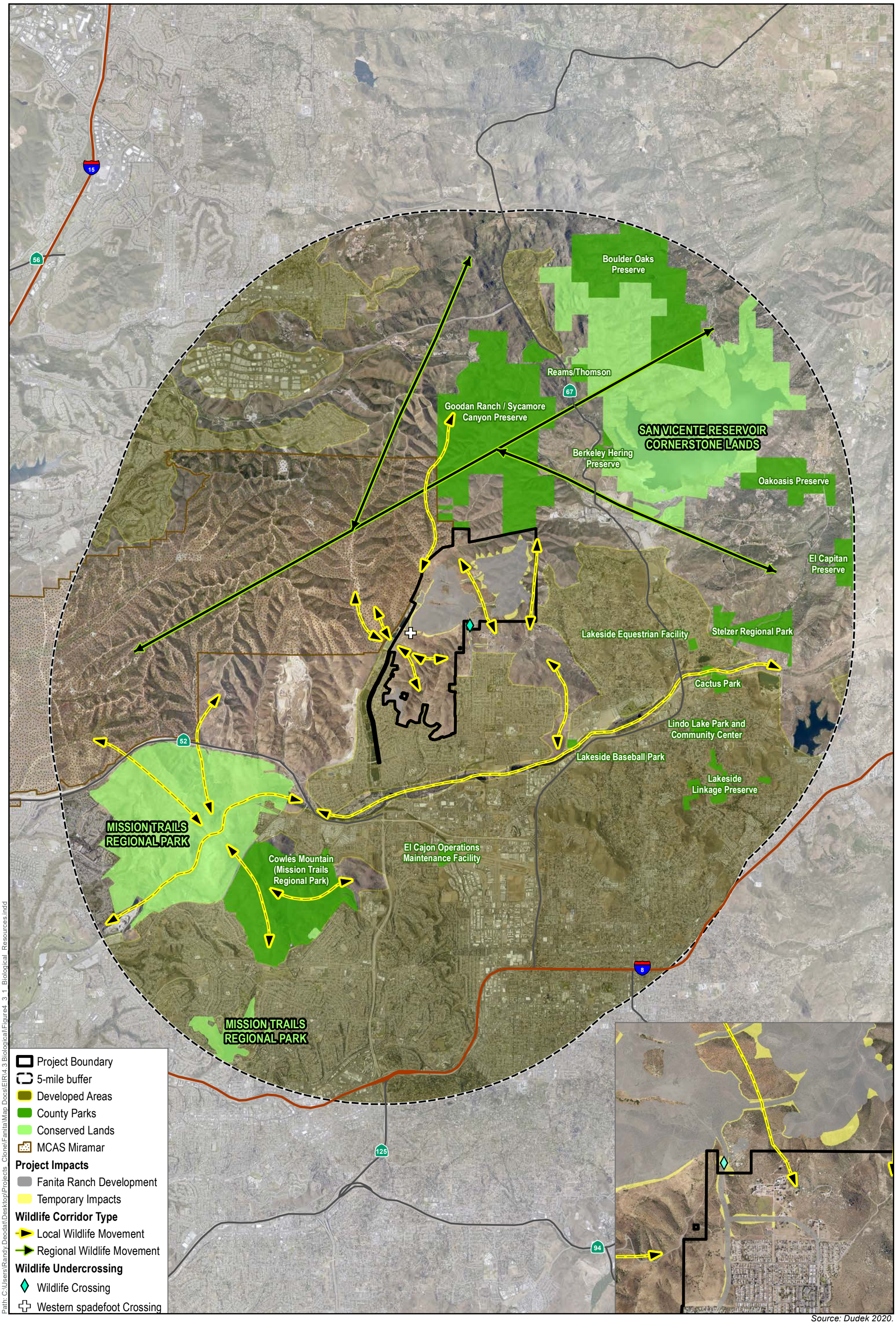

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Source: Dudek 2020.

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Figure 4.3-10

Regional Wildlife Corridors

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Despite the project design incorporating open space and wildlife movement corridors, development of the proposed project would still have the potential to result in significant direct impacts to wildlife movement corridors in the region, requiring mitigation.

Indirect Impacts. Wildlife movement would be affected by many of the other indirect effects discussed in Section 4.3.5.1 for impacts to special-status wildlife. Permanent development-related indirect impacts to wildlife movement would include noise, vibration, lighting, increased human activity, altered fire regimes (see Section 4.18, Wildfire), and increased roadkill. Development of the proposed project would result in significant indirect impacts to wildlife movement corridors both on and off site.

Mitigation Measures

Implementation of Mitigation Measures BIO-1, BIO-6, BIO-9, BIO-10, and BIO-20 described in Section 4.3.5.1 would preserve on-site habitat areas designed as wildlife movement corridors and provide links to off-site habitat areas. Mitigation Measures BIO-22 and BIO-23 would design and implement a wildlife corridor and crossings for wildlife movement in the northeastern part of the project site and under the Cuyamaca Street extension off site, respectively. Implementation of these mitigation measures would reduce impacts to wildlife corridors and habitat linkages to below a level of significance.

Due to the approximate 900-acre block of Habitat Preserve (Mitigation Measure BIO-1) in the southern portion of the project site, the loss or constraint of local wildlife movement opportunities would not adversely affect genetic exchange and diversity of populations at the landscape level. None of the wildlife species that would be affected or displaced by the loss or constraint of local movement areas have genetically unique or endemic populations that would be functionally isolated from other populations, and the regional habitat linkages would ensure that genetic exchange and diversity of these species in the region would be maintained.

Implementation of Mitigation Measures BIO-6, BIO-7, BIO-9, and BIO-10 would reduce potential indirect impacts to wildlife movement corridors to less than significant levels through conformance with the Land Use Adjacency Guidelines as specified in the Draft Santee MSCP Subarea Plan. Typical restrictions (e.g., best management practices) and requirements that address erosion, runoff and weed control treatments would be enforced, including the construction-related minimization measures required by the federal Clean Water Act, NPDES, and SWPPP, planting of cactus patches along the development–Habitat Preserve interface, and weed control treatments. Mitigation Measure BIO-20, which employs street signs, speed bumps, or other traffic-calming devices along the north and south collector streets to allow wildlife to cross more safely, would reduce long-term indirect impacts to wildlife movement to a less than significant level.

Mitigation Measure BIO-22, which would provide a wildlife corridor along the northern, western, and eastern project site boundaries, would reduce impacts to wildlife corridors to less than significant. Mitigation Measure BIO-23, which requires the provision of wildlife undercrossings

under Cuyamaca Street and Fanita Parkway, would reduce direct and indirect impacts to wildlife, including western spadefoot, to a less than significant level.

BIO-22: Wildlife Corridor. The project shall include an interior corridor that is minimally 1,200 feet wide and a northern corridor that is minimally 1,400 feet wide with the exception of one location that narrows to 600 feet for an approximate 800-foot length. This length is adjacent to the protected and managed Goodan Ranch/Sycamore Canyon Preserve to the north so it would still function for wildlife movement of mountain lion, coastal California gnatcatcher, and all other species. The western boundary shall include a corridor that is mostly approximately 1,000 feet wide except at the southern edge where it narrows to 400 feet at the stormwater catch basin. This entire area is bordered and managed by the Marine Corps Air Station Integrated Natural Resources Management Plan. In order to retain wildlife movement to the north along the eastern boundary of the project site, a secondary corridor has been included.

Throughout the Habitat Preserve, the following measures shall be implemented:

1. Lighting shall be directed toward development and shielded away from the Habitat Preserve.
2. Trails shall not be in use from dusk to dawn, pets must be on leashes, and trails shall only be used for hiking and biking with the exception of the extreme northeastern trail (approximate 1,200-foot long section) that is already established for equestrian use.
3. Trails shall be managed in accordance with the Public Access Plan (Appendix T to the Biological Technical Report for the Fanita Ranch Project), and disclosed in the Covenants, Codes & Restrictions (CC&Rs):
    a. Only the trail types discussed within the Public Access Plan shall be allowed;
    b. Unnecessary trails shall be abandoned and restored in accordance with the Public Access Plan, Preserve Management Plan (Appendix P to the Biological Technical Report for the Fanita Ranch Project), and Upland Restoration Plan (Appendix Q to the Biological Technical Report for the Fanita Ranch Project); and
    c. Trails shall be monitored on a regular basis and protected and maintained in accordance with the Public Access Plan and Preserve Management Plan;
4. Trails may be temporarily closed to control unauthorized access.
5. Trails may be closed on a seasonal basis to protect Covered Species in the Habitat Preserve.
6. Streets “V” and “W,” which connect the Vineyard Village to Fanita Commons and Orchard Village, shall provide safety lighting that shall be button started with a timer shut-off delay such that lighting shall not permanently be on at night, but only on when needed for emergency purposes or pedestrian safety.

BIO-23: Wildlife Undercrossings. A wildlife undercrossing shall be constructed approximately 400 feet south of the project site boundary within the Cuyamaca Street extension to adequately convey coyotes, mule deer, and smaller-sized wildlife. The wildlife undercrossing shall utilize existing or manufactured topography. The crossing shall be designed to provide a greater than 0.6 openness ratio (calculated as width times height divided by length in meters; see the Biological Technical Report for the Fanita Ranch Project, Figures 5-7b and 5-7c, Wildlife Corridors and Crossings). Crossings shall have a raised floor and/or side platform to allow dry passage for wildlife when water is flowing.

In addition, a 48-inch reinforced concrete pipe culvert and directional curbs shall be constructed to allow western spadefoot and other small wildlife to cross under Fanita Parkway to reduce permanent indirect impacts to these species (see the Biological Technical Report for the Fanita Ranch Project, Figure 5-7a, Local Wildlife Corridors).

4.3.5.5 Threshold 5: Tree Preservation

Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact: The proposed project would not conflict with local tree preservation policies and ordinances.

Mitigation: No mitigation is required.

Significance Before Mitigation: Less than significant.

Significance After Mitigation: Less than significant.

Impact Analysis

The City of Santee's Urban Forestry Ordinance contains tree-related policies, regulations, and generally accepted standards for planting, trimming, and removing trees on public property and public rights-of-way (Santee Municipal Code, Section 8.06 [City of Santee 2020]). The ordinance gives the City control of all trees, shrubs, and other plantings in any street, park, public right-of-way, landscape maintenance district or easement, or other City-owned property. City review of development plans for the City-owned and maintained property would ensure that the proposed landscaping and maintenance requirements conform to the Urban Forestry Ordinance. Therefore, the proposed project would comply with the Urban Forestry Ordinance, and impacts would be less than significant.

In the Conservation Element of the Santee General Plan, biological resources are discussed and specific objectives and policies are presented. As discussed in further detail in Section 4.10, Land Use and Planning, the proposed project does not conflict with any objectives or policies as presented in the Conservation Element of the Santee General Plan. Impacts would be less than significant.

Mitigation Measures

Impacts associated with conflicts with local policies or ordinances protecting biological resources would be less than significant. Therefore, no mitigation measures are required.

4.3.5.6 Threshold 6: Habitat Conservation Plan

Would the proposed project conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Impact: The proposed project would not conflict with local policies and ordinances or with provisions of the adopted MSCP Subregional Plan.	**Mitigation:** No mitigation is required.
Significance Before Mitigation: Less than significant.	**Significance After Mitigation:** Less than significant.

Impact Analysis

As discussed in Section 4.3.2.3, the City is actively preparing its Draft MSCP Subarea Plan. The Draft Santee MSCP Subarea Plan would implement the MSCP Subregional Plan and is intended to result in issuance to the City of federal and state authorizations (permits) for the take of certain listed threatened or endangered species. These authorizations would be granted to the City by USFWS and CDFW pursuant to Section 10(a)(1)(B) of the Endangered Species Act and Section 2835 of the California Natural Community Conservation Planning Act, respectively. The City, in turn, may then extend the take authorizations to public and private projects within its jurisdiction, as long as those biological resources are adequately conserved by the Santee MSCP Subarea Plan and the projects are consistent with and covered by the provisions of the Santee MSCP Subarea Plan.

The proposed project design is consistent with the Draft Santee MSCP Subarea Plan through specific adherence to conditions of coverage and mitigation/conveyance requirements for hardline Covered Projects as defined in the Draft Santee MSCP Subarea Plan (City of Santee 2018). The proposed project would not compromise continued implementation of the MSCP in the County or other cities because their Subarea Plans do not rely on the City of Santee for coverage of any species. Furthermore, the current project footprint has been reduced from the previous development hardline footprint identified in the approved 1998 MSCP Plan (City of San Diego 1998). A large development bubble in the southern portion site from the 1998 project design was removed, increasing the size of the current Habitat Preserve by more than 200 acres. Development of the proposed project would contribute 1,650.4 acres to the targeted 171,917 acres within the MHPA for conservation (City of San Diego 1998). Therefore, implementation of the current project design would be consistent with the Draft Santee MSCP Subarea Plan and would not compromise future implementation of the MSCP Subarea Plan within the City of Santee because the current project meets all requirements and provides a greater level of conservation than required for the Santee MSCP Subarea Plan pursuant to the MSCP Plan.

The proposed project comprises the Fanita Ranch Subunit of the Draft Santee MSCP Subarea Plan. The Santee General Plan, including its Conservation Element, and the NCCP Enrollment Agreement executed by the City require that any development in the City comply with the Draft MSCP Subarea Plan. This requirement applies to the proposed project and all other development that would impact biological resources in the City.

Therefore, the proposed project's consistency with the MSCP Subarea Plan would be ensured by the City, and impacts related to consistency with HCPs would be less than significant.

Mitigation Measures

Impacts to an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP would be less than significant. Therefore, no mitigation is required.

4.3.6 Cumulative Impacts and Mitigation Measures

Would the proposed project have a cumulatively considerable contribution to a cumulative biological resources impact considering past, present, and probable future projects?

Cumulative Impact	Significance	Proposed project Contribution
Threshold 1: Candidate, Sensitive, or Special-Status Species	Less than significant	Not cumulatively considerable
Threshold 2: Riparian Habitat or Other Sensitive Natural Communities	Less than significant	Not cumulatively considerable
Threshold 3: Wetlands	Less than significant	Not cumulatively considerable
Threshold 4: Native Resident or Migratory Fish or Wildlife Species	Less than significant	Not cumulatively considerable
Threshold 5: Tree Preservation	Less than significant	Not cumulatively considerable
Threshold 6: Habitat Conservation Plans	Less than significant	Not cumulatively considerable

4.3.6.1 Cumulative Threshold 1: Candidate, Sensitive, or Special-Status Species

Cumulative projects in the vicinity of the project site would have the potential to result in impacts to special-status plant and wildlife species, including loss of habitat. Several of the cumulative projects presented in Table 4-2, Cumulative Projects, in Chapter 4, Environmental Impact Analysis, are planned within undeveloped areas and would likely result in loss of habitat or edge effects that would impact special-status plant and wildlife species. Cumulative projects with the potential to result in cumulative impacts to sensitive plant and wildlife species include the Santee

Lakes Recreation Preserve Expansion project, Parkside (formerly Hillside Meadows), Sycamore Landfill expansion project, Carlton Oaks Country Club, and others.

Adjacent and nearby jurisdictions, including the City of San Diego, County of San Diego, and federally managed lands like MCAS Miramar, would be required to comply with applicable federal and/or state regulations that provide protections for special-status plant and wildlife species such as FESA, CESA, and the California NCCP Act. In addition, some projects that affect special-status species require approval from the USFWS and the CDFW. If significant impacts occur from particular cumulative projects, then mitigation measures are implemented to reduce impacts to the extent feasible in compliance with CEQA.

The City and County of San Diego MSCPs and Draft Santee MSCP Subarea Plan establish conservation goals and objectives to preserve critical biological resources at a sustainable level on a regional scale and set mitigation standards to be applied at the project level to minimize the cumulative effects of projects in the MSCP planning area. The City and County of San Diego have MSCP Subarea Plans in place that are applicable to the cumulative projects within their jurisdictions, and the City is committed to applying the conservation standards of the MSCP Plan and Draft Subarea Plan to development in the City. The Draft Santee MSCP Subarea Plan has been prepared to meet NCCP criteria and reduce cumulative project impacts through participation in a regional habitat preservation program that adds an extra level of ongoing habitat management. The Draft Santee MSCP Subarea Plan is also intended to provide cumulative mitigation for impacts to Covered Species within the City of Santee's jurisdiction and to ensure sufficient biological resources are conserved to assist in the conservation and recovery of Covered Species under the MSCP. Any projects, including the proposed project, approved within the City's jurisdiction would be required to be consistent with the Draft Santee MSCP Subarea Plan, when adopted, or if not adopted, the MSCP Plan and guiding principles, which are uniform throughout the MSCP area. Because cumulative projects and the proposed project would be required to meet or exceed MSCP requirements directed toward regional conservation, and project-specific mitigation measures would be implemented to reduce the proposed project's impacts to sensitive plant and wildlife species to below a level of significance, the proposed project would contribute to species recovery. Therefore, the proposed project's contribution to effects on species would not be cumulatively considerable.

4.3.6.2 Cumulative Threshold 2: Riparian Habitat or Other Sensitive Natural Communities

Cumulative projects located in the vicinity of the proposed project site have the potential to result in impacts associated with riparian habitat and other sensitive natural communities through direct and indirect loss or degradation. Some of the cumulative projects listed in Table 4-2 in Chapter 4 would occur in undisturbed areas that affect riparian habitat and other sensitive vegetation communities. Example cumulative projects with the potential to result in cumulative impacts to sensitive vegetation communities may include the Santee Lakes Recreation Preserve Expansion

project, Parkside (formerly Hillside Meadows), Sycamore Landfill expansion project, Carlton Oaks Country Club, and others.

Adjacent and nearby jurisdictions, including the City of San Diego, County of San Diego, and federally managed lands like MCAS Miramar, would be required to comply with applicable federal and/or state regulations such as the California Lake and Streambed Alteration Program or the California NCCP Act. These programs provide protections for riparian and other sensitive habitats. In addition, many projects that affect riparian or other protected habitat types require approval from the USFWS and the CDFW. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible.

As discussed in Section 4.3.5.2, development under the proposed project would have the potential to impact riparian and other sensitive habitats. The Draft Santee MSCP Subarea Plan is being prepared for approval by the City and wildlife agencies and would meet NCCP criteria. Any projects, including the proposed project, approved within the City's jurisdiction would be consistent with the Draft Santee MSCP Subarea Plan, when adopted, or if not adopted, the MSCP Plan and guiding principles, which are uniform throughout the MSCP area. The Draft Santee MSCP Subarea Plan is also intended to provide cumulative mitigation for impacts to Covered Species within the City's jurisdiction and to ensure sufficient biological resources are conserved to assist in the conservation and recovery of Covered Species under the MSCP. Because cumulative projects and the proposed project would be required to meet or exceed MSCP requirements directed toward regional conservation and project-specific mitigation measures would mitigate the proposed project's impacts to riparian habitat or other sensitive communities to below a level of significance, the proposed project would contribute to habitat conservation. Therefore, the proposed project's contribution would not be cumulatively considerable.

4.3.6.3 Cumulative Threshold 3: Wetlands

Cumulative projects located in the vicinity of the project site would have the potential to result in a cumulative impact associated with federally or state protected wetlands. Several cumulative projects presented in Table 4-2 in Chapter 4 would occur in previously developed and undeveloped areas that have the potential to result in disturbances to federally and state protected wetlands. One potential example is the Santee Lakes Recreation Preserve Expansion project located to the east of Fanita Parkway near Carlton Oaks Drive.

Adjacent and nearby jurisdictions, including the City of San Diego, County of San Diego, and federally managed lands like MCAS Miramar, would be required to comply with applicable federal and/or state regulations such as Sections 401 and 404 of the Clean Water Act and the Porter–Cologne Water Quality Control Act.

Existing regulations would ensure that a significant cumulative impact associated with federally or state protected wetlands would not occur. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts as required to meet the no-net-loss standard. Similarly, the proposed project would mitigate its direct impacts to a less than significant level. Therefore, the proposed project's contribution would not be cumulatively considerable.

4.3.6.4 Cumulative Threshold 4: Native Resident or Migratory Fish or Wildlife Species

Cumulative projects located in the vicinity of the project site would have the potential to result in a cumulative impact associated with wildlife movement corridors and habitat linkages. Several cumulative projects presented in Table 4-2 in Chapter 4 would occur in previously developed and undeveloped areas that have the potential to result in the regional loss of wildlife movement corridors and habitat linkages. Example projects may include Carlton Oaks Country Club, Santee Lakes Recreation Preserve Expansion project, and Walker Trails. Development of the proposed project in combination with these cumulative projects would potentially impact wildlife movement corridors and habitat linkages within and through the City to neighboring jurisdictions.

Adjacent and nearby jurisdictions, including the City of San Diego, County of San Diego, and federally managed lands like MCAS Miramar, would be required to comply with applicable federal and/or state regulations such as the California NCCP Act, which supports the continued provision of wildlife movement corridors. If potentially significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible.

As discussed in Section 4.3.5.4, the proposed project would have the potential to impact wildlife movement corridors and habitat linkages. The project proposes mitigation measures that would preserve on-site habitat areas designed as wildlife movement corridors and provide links to off-site habitat areas, reducing project impacts to less than significant.

Any projects, including the proposed project, approved within the City's jurisdiction would be required to be consistent with the Draft Santee MSCP Subarea Plan, when adopted, or if not adopted, the MSCP Plan and guiding principles, which are uniform throughout the MSCP area. The Draft Santee MSCP Subarea Plan is also intended to provide cumulative mitigation for impacts to Covered Species within the City's jurisdiction and to ensure sufficient biological resources are conserved to assist in the conservation and recovery of Covered Species under the MSCP. Because cumulative projects and the proposed project would be required to meet or exceed MSCP requirements, and project-specific mitigation measures would reduce the proposed project's impacts to wildlife movement corridors and habitat linkages to below a level of

significance, the proposed project would preserve wildlife movement corridors and habitat linkages. Therefore, the proposed project's contribution would not be cumulatively considerable.

4.3.6.5 Cumulative Threshold 5: Tree Preservation

Cumulative projects located in the vicinity of the project site would have the potential to result in a cumulative impact associated with conflicts with regional or local tree preservation policies or ordinances. Several cumulative projects presented in Table 4-2 in Chapter 4 would occur in previously developed and undeveloped areas that have the potential to result in the regional loss of trees protected under regional or local tree preservation policies or ordinances. Example projects may include Carlton Oaks Country Club, Santee View Estates, Santee Lakes Recreation Preserve Expansion project, and others. Development of the proposed project in combination with these cumulative projects would potentially impact regionally or locally protected trees and result in a conflict with these preservation policies or ordinances.

Adjacent and nearby jurisdictions, including the City of San Diego, County of San Diego, and federally managed lands like MCAS Miramar, would be required to comply with applicable regional or local tree preservation policies or ordinances. As discussed in Section 4.3.5.5, the City of Santee's Urban Forestry Ordinance contains tree-related policies, regulations, and generally accepted standards for planting, trimming, and removing trees on public property and public rights-of-way (Santee Municipal Code, Section 8.06 [City of Santee 2020]). The ordinance gives the City control of all trees, shrubs, and other plantings in any street, park, public right-of-way, landscape maintenance district or easement, or other City-owned property. City review of development plans for the proposed project would ensure that the proposed improvements conform to the requirements of the Urban Forestry Ordinance. Therefore, the proposed project and other cumulative projects would be required to comply with the Urban Forestry Ordinance as condition of project approval. A significant cumulative impact associated with a conflict with a local tree preservation ordinance would not occur. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact. The proposed project's contribution would not be cumulatively considerable.

4.3.6.6 Cumulative Threshold 6: Habitat Conservation Plans

Several cumulative projects presented in Table 4-2 in Chapter 4 would occur in previously developed and undeveloped areas that would have the potential to result in the regional loss of sensitive biological resources protected under regional or local HCPs. Development of the proposed project in combination with these cumulative projects would potentially impact sensitive biological resources and result in a conflict with regional or local HCPs.

Adjacent and nearby jurisdictions, including the City of San Diego, County of San Diego, and federally managed lands like MCAS Miramar, would be required to comply with applicable regional or local HCPs or NCCPs, such as the City and County of San Diego MSCPs. If potentially

significant impacts would occur from particular cumulative projects, then mitigation measures would be implemented to reduce impacts to the extent feasible.

The proposed project would be designed to meet MSCP Plan Design Criteria and the NCCP Process Guidelines. The Draft Santee MSCP Subarea Plan is being prepared for approval by the City and wildlife agencies, and will meet those criteria. Due to lack of any control of the applicant over the Santee MSCP Subarea Plan approval process, the applicant elected to design the proposed project consistent with the higher NCCP standards and MSCP design guidelines, so that the proposed project would attain the conservation standard of NCCP, compared to a lower standard of a project designed without a regional context.

As discussed in Section 4.3.5.6, the Draft Santee MSCP Subarea Plan, once finalized, will contribute to the regional MSCP for preservation, mitigation for impacts, and conservation of sensitive biological resources within San Diego County. The Draft Santee MSCP Subarea Plan is also intended to provide cumulative mitigation for impacts to Covered Species within the City of Santee's jurisdiction and to ensure sufficient biological resources are conserved to assist in the conservation and recovery of Covered Species under the MSCP.

Project impacts would all occur outside the final Habitat Preserve boundary, which would be considered part of the MHPA. However, project impacts would occur immediately adjacent to the Habitat Preserve. Therefore, in addition to project-specific mitigation, the project is required to implement the area-specific management directives (ASMDs), as stated in Table 3-5, Species Evaluated for Coverage under the MSCP, of the MSCP Plan (City of San Diego 1998), for each Covered Species proposed to be impacted. The project must demonstrate how ASMDs (or Conditions of Coverage) would be implemented in order for the species to be considered "Covered" by the MSCP. Table 4.3-20 summarizes each Draft Santee MSCP Subarea Plan Covered Species impacted on the project site, the applicable ASMD, and the proposed project's compliance with that particular ASMD.

For those special-status species which are not included under the Draft Santee MSCP Subarea Plan but are included as Covered Species under the MSCP Plan (City of San Diego 1998), project-specific mitigation measures would be implemented, as summarized in Section 4.3.5.1 in Table 4.3-7 for plants and Table 4.3-8a for wildlife, to reduce the proposed project's cumulative impacts to these special-status species to less than significant. For MSCP Covered Species occurring on the project site but with no other status (e.g., mule deer, mountain lion, western bluebird), cumulative impacts to these species would be reduced to a less than significant level due to the project-specific mitigation program that would provide wildlife movement corridors and through establishment of the Habitat Preserve, which would conserve suitable habitat in a configuration that preserves genetic exchange and species viability. Additionally, these MSCP Plan Covered Species are known to be covered under other neighboring jurisdictions' Subarea Plans (e.g., City

and County of San Diego and the City of Poway). Therefore, additional protections would be provided under these neighboring Subarea Plans, further ensuring cumulative impacts to these species would be reduced to a less than significant level.

Included in Table 4.3-20 are three species (i.e., western spadefoot, Hermes copper butterfly, and Quino checkerspot butterfly) that are covered under the Draft Santee MSCP Subarea Plan but are not covered under the MSCP Plan. By implementing the project's mitigation program, as summarized in Table 4.3-20, impacts to these species would not contribute to significant cumulative impacts.

Table 4.3-20. Multiple Species Conservation Program Consistency Analysis

Draft Santee MSCP Subarea Plan Covered Species	MSCP Plan ASMD (Table 3-5)	Project Compliance
San Diego Goldenstar (*Bloomeria clevelandii*)	Area specific management directives must include monitoring of the transplanted population(s), and specific measures to protect against detrimental edge effects to this species.	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, would provide species-specific monitoring and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects.
Variegated Dudleya (*Dudleya variegata*)	Area specific management directives must include species-specific monitoring and specific measures to protect against detrimental edge effects to this species, including effects caused by recreational activities. Some populations now occur within a major amendment area (Otay Mountain) and at the time permit amendments are proposed, strategies to provide protection for this species within the amendment area must be included. (Proposed take authorization amendments will have public review through CEQA and NEPA processes and require approval by CDFW and USFWS.)	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, would provide species-specific monitoring, and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects, including the effects caused by recreational activities. The project is outside the Otay Mountain amendment area and therefore that discussion does not apply.
San Diego Barrel Cactus (*Ferocactus viridescens*)	Area specific management directives must include measures to protect this species from edge effects, unauthorized collection, and include appropriate fire management/control practices to protect against a too frequent fire cycle.	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects, unauthorized collecting, and BIO-21 (Fire Protection Plan) would require fire management.

Table 4.3-20. Multiple Species Conservation Program Consistency Analysis

Draft Santee MSCP Subarea Plan Covered Species	MSCP Plan ASMD (Table 3-5)	Project Compliance
Willowy Monardella (*Monardella viminea*)	Area specific management directives must include specific measures to protect against detrimental edge effects.	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects.
Western spadefoot (*Spea hammondii*)	None	Not applicable. However, project mitigation would include conservation and management of occupied features (BIO-1, Preserve Management Plan), enhancement and restoration of vernal pool resources (BIO-12, Vernal Pool Mitigation Plan), a relocation plan inside impact areas (BIO-13, Western Spadefoot Relocation), and exotic species control (BIO-19, African Clawed Frog Trapping).
Blainville's horned lizard (*Phrynosoma blainvillii*)	Area specific management directives must include specific measures to maintain native ant species, discourage the Argentine ant, and protect against detrimental edge effects to this species.	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), would reduce the potential impacts of edge effects, and BIO-11 (Argentine Ant Control and Monitoring) would reduce impacts to native ants.
Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*)	Area specific management directives must address edge effects.	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects.
Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	The restoration of maritime succulent scrub habitat as specified in the Otay Ranch RMP and GDP must occur at the specified 1:1 ratio. Area specific management directives must include restoration of maritime succulent scrub habitat, including propagation of cactus patches, active/adaptive management of cactus wren habitat, monitoring of populations within preserves and specific measures to reduce or eliminate detrimental edge effects. No clearing of occupied habitat may occur from the period February 15 through August 15.	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, would provide species-specific monitoring and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects, BIO-16 (Coastal Cactus Wren Habitat Management), which would require a coastal cactus wren management plan, would restore suitable habitat at a 2:1 ratio, and cactus planting suitable for this species in temporary impact areas and along brush management zones

Table 4.3-20. Multiple Species Conservation Program Consistency Analysis

Draft Santee MSCP Subarea Plan Covered Species	MSCP Plan ASMD (Table 3-5)	Project Compliance
		(BIO-2, Upland Restoration Plan, and BIO-9, Habitat Preserve Protection). All clearing of suitable habitat will be outside of the nesting period as identified in the ASMD as directed by BIO-14 (Nesting Bird Survey).
Coastal California gnatcatcher (*Polioptila californica californica*)	Area specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No cleaning of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects, maintain suitable habitat, and provide fire management. Preconstruction surveys would be conducted prior to construction to ensure that direct impacts to this species would be avoided (BIO-14, Nesting Bird Survey). If the species is observed, restrictions would be implemented. All clearing of suitable habitat would be outside of the nesting period as identified in the ASMD as directed by BIO-14.
Least Bell's vireo (*Vireo bellii pusillus*)	Jurisdictions will require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and incorporate mitigation measures consistent with the 404(b)1 guidelines into the project. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. Jurisdictions must require new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds to monitor and control cowbirds. Area specific management directives must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the nesting period).	Protocol surveys were conducted in all areas of suitable habitat. In addition, preconstruction surveys would be conducted prior to construction to ensure that direct impacts to this species would be avoided (BIO-14, Nesting Bird Survey). If the species is observed, restrictions would be implemented. Implementation of Mitigation Measure BIO-15 (Wetland Mitigation Plan) would mitigate impacts to suitable habitat for this species. Mitigation Measures BIO-1, Preserve Management Plan, which would provide a long-term management plan for the Habitat Preserve, and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects. Implementation of Mitigation Measure BIO-17 (Brown-Headed Cowbird Trapping) would remove brown-headed cowbirds from the project area. Although this species is unlikely to nest within the project area, all clearing of suitable habitat would be outside of the nesting period as identified in the ASMD as directed by Mitigation Measure BIO-14.

Table 4.3-20. Multiple Species Conservation Program Consistency Analysis

Draft Santee MSCP Subarea Plan Covered Species	MSCP Plan ASMD (Table 3-5)	Project Compliance
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	Area specific management directives must include specific measures to protect against detrimental edge effects to this species.	Mitigation Measures BIO-1 (Preserve Management Plan), which would provide a long-term management plan for the Habitat Preserve, and BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects; enhancement and restoration of vernal pool resources (BIO-12, Vernal Pool Mitigation Plan), and exotic species control (BIO-19, African Clawed Frog Trapping).
Quino checkerspot butterfly (*Euphydryas editha quino*)	None	Not applicable. However, project mitigation would include conservation and management of suitable habitat with species-specific management including success criteria, and Mitigation Measures BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects, including the effects caused by recreational activities (BIO-1, Preserve Management Plan), restoration and enhancement of suitable habitat within the Habitat Preserve (BIO-18, Restoration of Suitable Habitat for Quino Checkerspot Butterfly and Hermes Copper Butterfly), and BIO-11 (Argentine Ant Control and Monitoring) would reduce impacts to native ants.
Hermes copper butterfly (*Lycaena hermes*)	None	Not applicable. However, project mitigation would include conservation and management of suitable habitat with species-specific management, and Mitigation Measures BIO-6 (Land Use Adjacency Guidelines), BIO-9 (Habitat Preserve Protection), BIO-10 (Weed Control Treatments), and BIO-11 (Argentine Ant Control and Monitoring) would reduce the potential impacts of edge effects, including the effects caused by recreational activities (BIO-1, Preserve Management Plan), restoration and enhancement of suitable habitat within the Habitat Preserve (BIO-18, Restoration of Suitable Habitat for Quino Checkerspot Butterfly and Hermes Copper Butterfly), and BIO-11 (Argentine Ant Control and Monitoring) would reduce impacts to native ants.

Notes: CDFW = California Department of Fish and Wildlife; NEPA = National Environmental Policy Act; USFWS = U.S. Fish and Wildlife Service

Further, any projects, including the proposed project, approved within the City's jurisdiction would be consistent with the Draft Santee MSCP Subarea Plan, when adopted, or if not adopted, the MSCP Plan and guiding principles, which are uniform throughout the MSCP area. Because cumulative projects and the proposed project would be required to meet or exceed MSCP requirements, and project-specific mitigation measures would reduce the proposed project's impacts to below a level of significance, the proposed project would contribute to the attainment of conservation goals identified in regional or local HCPs. Therefore, the proposed project's contribution would not be cumulatively considerable.

4.3.7 Comparison of Proposed Project to 2007 Project

The project site has been a key part of the City's participation in the Final MSCP Plan. The Final MSCP Plan calls for the preservation and management of approximately 900 square miles in the southwestern County. The Final MSCP Plan and EIR/Environmental Impact Statement was adopted in August 1998 (City of San Diego 1998). It outlined a comprehensive regional habitat preserve system and established minimum conservation and management requirements for identified species. The City amended its General Plan to require that future development in the City be consistent with the MSCP Plan and the Draft Santee MSCP Subarea Plan. The City is in the process of obtaining approval of its Draft Santee MSCP Subarea Plan, which is divided into six subunits, including the Fanita Ranch Subunit.

During the process of development approvals, the proposed project has become less impactful to land, habitat, and species. The development bubbles included in the MHPA map that is part of the Final MSCP Plan impacted approximately 1,224 acres, including 1,140 acres of habitat, 18 coastal California gnatcatcher pairs, 22 western spadefoot locations, 58 acres of Hermes copper butterfly habitat, and 53 vernal pools and road ruts, 43 of which supported San Diego fairy shrimp.

The previously approved 2007 Barratt American Project (approved under CEQA by the City Council) included three development bubbles and impacted approximately 1,112 acres of habitat, 17 California gnatcatcher pairs, 19 western spadefoot locations, 56 acres of Hermes copper butterfly habitat, and 58 vernal pools and road ruts, 47 of which supported San Diego fairy shrimp (this version of the project included an approximately 200-acre off-site mitigation component).

The currently proposed project includes two development bubbles and impacts approximately 988.77 acres of on- and off-site sensitive habitats, 14 California gnatcatcher use areas, 14 basins occupied by western spadefoot, 53 acres of Hermes copper butterfly suitable habitat, and 111 vernal pools and road ruts (0.41 acres), 34 of which support San Diego fairy shrimp. The currently proposed project also includes fewer impacts to special-status plants, larger wildlife movement corridors, and an approximately 900-acre block of contiguous open space contained within the Habitat Preserve and connected to other preserves within the vicinity.

The Preserve Management Plan, provided in Appendix D, was prepared specifically for the proposed project and is intended to address issues raised in prior court rulings in connection with the previously approved project (2007 Barratt Project). As discussed previously, with regard to biology, the rulings concluded that the previous EIR did not include substantial evidence to support a conclusion that impacts to Quino checkerspot butterfly would be mitigated to below a level of significance. The court of appeal opinion in particular indicated that the EIR lacked the following:

- A description of the actions needed for active management of Quino checkerspot butterfly in the Habitat Preserve.
- Specific performance standards or other guidelines for active management without utilizing prescribed burns or grazing in the Habitat Preserve, given the City's decision not to permit prescribed burns or gazing.
- Timing and specific details for implementing Quino management activities, which were subject to the discretion of the preserve manager based on prevailing environmental conditions and which consequently led to these activities not being guaranteed to occur at any particular time or in any particular manner.
- An explanation of why performance standards or providing guidelines for the active management was impractical or infeasible at the time the EIR was certified.

Although there is not yet a generally accepted management protocol for the Quino checkerspot butterfly, the Preserve Management Plan includes habitat management requirements and activities known to benefit the species (i.e., habitat connectivity, Argentine ant and invasive plant species removal, and reduction in off-roading activity, grazing, and fire), based on the Draft Santee MSCP Subarea Plan and the USFWS Recovery Plan for Quino checkerspot butterfly (March 2019 Draft Amendment). The Preserve Management Plan (Mitigation Measure BIO-1) would implement these strategies as the key to long-term conservation success for this species. Table 4.3-21 compares the 2007 Barratt American Project's Quino checkerspot butterfly mitigation program addressed by the courts with the current proposed program.

Table 4.3-21. Comparison of Management Actions Between the 2020 Preserve Management Plan and the 2007 Draft HMP

Management Actions	2020 Preserve Management Plan (Appendix D)	2007 Draft HMP
Plans Completed	Adoption of several detailed mitigation plans.	Draft HMP (only). The 2007 Biological Technical Report states that the Plans will be prepared, but no other mitigation plans were included in submittal.
Vegetation Management	• Removal of non-native grasses, weedy material, and duff layers by hand-weeding, mowing, or with herbicide (see Section 4.2.3 in Appendix P in EIR Appendix D). • Augmenting the annual host and nectar plant through seeding (see Section 3.7 in Appendix P in EIR Appendix D). Host plant species are included in the plant pallets of the Upland Restoration Plan (see Appendix Q of EIR Appendix D). Figure 7a of Appendix P in EIR Appendix D includes the high priority recommended areas for host plant enhancement.	• The Draft HMP include prescribed burns and grazing which are not permitted by the City: periodic fire or alternative vegetation management techniques such as managed grazing would keep the habitat open and suitable for the Quino. • Does not identify where habitat enhancement actions to promote appropriate Quino habitat would occur.
Adaptive Management	• Initiated whenever there is a significant disturbance of suitable habitat of more than 20%, or if field observations and expert judgment indicate a change in management approach is needed (see Section 4.2.6.2 in Appendix P in EIR Appendix D). • If invasive plant species exceed 10% total vegetated cover, or have increased by 25% or more since the previous survey, implement invasive species control measures (see Section 4.2.6.2 in Appendix P in EIR Appendix D). • Includes Argentine ant monitoring (see Section 4.2.7.3 in Appendix P in EIR Appendix D).	• Contingency measures with performance standards for remedial actions in enhancement treatment areas are left to the discretion of the preserve manager. • Identifies Argentine ant as a threat but does not include a measure for control.
Surveys	• Every 5 years, a qualified biologist will perform focused surveys for Quino checkerspot butterfly (see Section 4.2.5 in Appendix P in EIR Appendix D). • Every 3 years, a habitat evaluation and threats assessment will be conducted (using SDMMP protocol) focusing on the quality of host plants (invasive species, changes in vegetation type cover resulting from alteration of fire regime and/or climate change) as it pertains to the habitat needs of Quino checkerspot butterfly. If multiple populations exist, a threats assessment will be conducted for each occurrence (see Section 4.2.5 in Appendix P in EIR Appendix D).	• Surveys are included but lacked threats assessment. • Annual reconnaissance survey by preserve manager with opportunistic surveys by plant and wildlife specialists every 5 years, and potential new species issues to be surveyed every 10 years. Opportunistic surveys are defined as those that take place during ideal weather conditions (i.e., good rainfall year) and would include Quino checkerspot butterfly surveys.
Access Control	If human activity (e.g., trail use) occurs in the vicinity of occupied habitat, evaluate the potential need for exclusionary fencing and signage for larvae locations, and implement where potential for human	Includes installation of fencing along certain trails, which will deter access to an area in the Habitat Preserve where a Quino checkerspot butterfly was once observed.

Table 4.3-21. Comparison of Management Actions Between the 2020 Preserve Management Plan and the 2007 Draft HMP

Management Actions	2020 Preserve Management Plan (Appendix D)	2007 Draft HMP
	ingress exists (see Sections 4.2.6.2 and 4.4.2.4 in Appendix P in EIR Appendix D).	
Establishment of the Habitat Preserve Benefits	• Implementation of the proposed project would provide an in-perpetuity managed Habitat Preserve with connectivity to current Quino checkerspot locations occurring outside the project site (see Appendix D, Figure 5-3b). • Funding of the Preserve Management Plan will occur through the HOA, supported by a dormant Community Facilities District or comparable funding mechanism pursuant to the 2008 USEPA Compensatory Mitigation Rule. • Reduction of invasive species and off-roading vehicle use within the Habitat Preserve (see Sections 4.2.3 and 4.5 in Appendix P in EIR Appendix D). •	• Includes acquisition of off-site lands containing Quino checkerspot butterfly suitable habitat. However, no mention of management for the species on these off-site lands. • Funding was not guaranteed: Implementation of the enhanced habitat management program depends on funding from public sources. Most of those funding sources have not been identified at the time of printing, and while the enhanced management program has not yet committed to funding from any one source, it appears there will be substantial opportunities as the regional habitat management issue is resolved and leveraged regional public funds become available. • Reduction of invasive species and off-roading vehicle use within the Habitat Preserve.
Management Activities	• Currently, the Habitat Preserve contains enough suitable habitat (approximately 1,096 acres) to mitigate for impacts to suitable habitat at a 1.9:1 ratio. This alone is considered beneficial to the species (see Section 3.4 in Appendix P in EIR Appendix D). • The Preserve Management Plan outlines the mandatory strategies and triggers for when the preserve manager should implement the actions listed above and their corresponding sections in the Preserve Management Plan. It is infeasible to determine which activities will be required within Habitat Preserve, due to unforeseeable changes to environmental conditions; therefore, the approach taken in the Preserve Management Plan is to allow the preserve manager a degree of flexibility to implement necessary actions.	• Preserve would include 882 acres of modeled suitable habitat, mitigation occurring at a 0.89:1 ratio. • Timing and specific details for implementing Quino management activities not articulated, and subsequent activities were subject to the discretion of the preserve manager based on prevailing environmental conditions.
Agency Input	• Informally met with USFWS on numerous occasions and implemented feedback where applicable, especially with regards to trail usage and removal within the Habitat Preserve. •	Included agency input into the Subarea Plan but not the EIR.

Notes: HOA = homeowners association

4.3.8 References

14 CCR 15380. Endangered, Rare, or Threatened Species. In Title 14, Natural Resources; Division, Resource Agency; Chapter 3, Guidelines for Implementation of the California Environmental Quality Act; Article 20, Definitions.

16 USC 703–712. Migratory Bird Treaty Act, as amended.

16 USC 1531–1544. Endangered Species Act of 1973, as amended.

33 CFR 328.3(b). Navigation and Navigable Waters. In Title 33, Navigation and Navigable Waters; Chapter II, Corps of Engineers, Department of the Army, Department of Defense; Part 328, Definition of Waters of the United States; Section 328.3, Definitions.

33 USC 1251(a). Congressional Declaration of Goals and Policy. In Title 22, Navigation and Navigable Waters, Chapter 26, Water Pollution Prevention and Control, Subchapter I, Research and Related Programs.

50 CFR, Part 22.3. Definitions. In Title 50, Wildlife and Fisheries; Chapter I, United States Fish and Wildlife Service, Department of the Interior; Subchapter B, Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants; Part 22, Eagle Permits; Subpart A, Introduction.

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