4.3 BIOLOGICAL RESOURCES

4.3.1 INTRODUCTION

This section describes the existing biological resources of the project site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed SDSU New Student Housing Project (proposed project). Information used throughout this section is primarily based on the Biological Resources Technical Report for the proposed project, prepared by Dudek, and is included in **Appendix D** to this EIR.

4.3.2 METHODOLOGY

Data regarding biological and jurisdictional resources present within the project site were obtained through a review of pertinent literature and field reconnaissance; both are described in detail below.

Literature Review

The following data sources were reviewed to assist with the biological and jurisdiction efforts:

- Natural Resource Conservation Service Websoil Survey (U.S. Department of Agriculture (USDA 2016)),
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2014, 2017a),
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2014, 2017),
- U.S. Geological Survey National Hydrography Dataset (USGS 2016),
- U.S. Fish and Wildlife Service (USFWS) Species Occurrence Data (USFWS 2014, 2017), and
- San Diego Geographic Information Source (SanGIS) database (SanGIS 2016).

Native plant community classifications used in this report follow Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the County and noted in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008).

Field Reconnaissance

Between February and April 2014, Dudek conducted vegetation mapping, rare plant surveys, a jurisdictional delineation, and focused coastal California gnatcatcher surveys for the proposed project. An updated vegetation mapping and jurisdictional delineation was conducted in January 2017. Updated surveys for coastal California gnatcatcher began in March 2017 and are ongoing, and rare plant surveys are scheduled for spring and summer 2017. **Table 4.3-1** lists the dates, conditions, and survey focus for each survey performed.

Table 4.3-1
Schedule of Surveys

Date	Hours	Personnel[1]	Focus[2]	Conditions
2/20/2014	0900–1100	AMH	CAGN Survey	64° – 68° Fahrenheit (°F); 0% cloud cover (% cc); 3–5 miles per hour (mph) winds
3/6/2014	0730–0945	AMH	CAGN Survey	61°–43 °F; 100% cc; 3–5 mph winds
3/17/2014	0730–0930	AMH	CAGN Survey	55°–61°F; 0% cc; 1–3 mph winds
3/19/14	1440-1650	VRJ, EAW	Jurisdictional Delineation and Vegetation Mapping	74°F; 0% cloud cover; 7–10 mph winds
3/24/2014	0805–1100	AMH	CAGN Survey	58°–64°F; 100% cc; 1–3 mph winds
3/31/2014	0730–0905	AMH	CAGN Survey	58°–61°F; 100% cc; 1–3 mph winds
4/8/2043	0700–0930	AMH	CAGN Survey	58°–62°F; 100% cc; 3–5 mph winds
4/15/2014	0725–0930	AMH	CAGN Survey	61°–68°F; 0% cc; 3–5 mph winds
4/30/14	0940- NR[3]	ACT, KM	Rare Plant Survey	82°–95°F; 10% cc; 10–20 mph winds
1/4/2017	0945-1133	CJA	Jurisdictional Delineation and Vegetation Mapping	59°–66°F; 15–%20% cc; 0 mph winds
3/16/17	0815-1010	PL	CAGN Survey	61°–71°F; 0%–100% cc; 0-5 mph winds
3/24/17March 2017	0740-0945TBD	PLTBD	CAGN Survey	55°–61°F; 0% cc; 0-3 mph winds
3/31/17	0825-1015	PL	CAGN Survey	58°–63°F; 10-80% cc; 0-4 mph winds
4/2/17	0902-1258	EB	Rare Plant Survey — Spring Pass	62°–76°, 0% cc, 0-2 mph winds
4/8/17	0830-1010	PL	CAGN Survey	63°–66°F; 80-100% cc; 0-4 mph
4/17/17	0750-1000	PL	CAGN Survey	58°–70°F; 50-80% cc; 1-3 mph
4/24/17	TBD	TBD	CAGN Survey	TBD
June 2017	TBD	TBD	Rare Plant Survey	TBD

Notes :
1 AMH = Anita M. Hayworth; ACT = Andy Thomson; CJA = Callie J. Amoaku ; EB = Erin Bergman; EAW = Emily A. Wier; KM = Kyle Matthews; PL = Paul Lemons; VRJ = Vipul Joshi
2 CAGN = coastal California gnatcatcher
3 NR = Not Recorded

Vegetation communities and land uses on and within 100 feet of the site were mapped in the field directly onto a 200-foot-scale (1 inch = 200 feet), aerial photograph–based field map of the project site (Bing Maps 2014, 2017). Following completion of the fieldwork, all vegetation polygons were transferred to a topographic base and digitized using ArcGIS and a geographic

information system (GIS) coverage was created by Senior GIS Analyst Lesley Terry. Once in ArcGIS, the acreage of each vegetation community and land cover present on site was determined.

Vegetation community classifications used in this report follow Holland (1986) and Oberbauer et al. (2008), where feasible, with modifications to accommodate the lack of conformity of the observed communities to those of Holland (1986) or Oberbauer et al. (2008).

Flora

Dudek conducted a focused plant survey within the 8.02-acre project site on April 30, 2014, to maximize detection of special-status plants (**Table 4.3-1**). An updated focused plant survey was completed in April 2017 and a second pass is scheduled for June 2017. All native and naturalized plant species encountered on the project site were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR) (formerly CNPS List) follow the California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2017). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2017), and common names follow the List of Vegetation Alliances and Associations (CDFW 2010) or the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service Plants Database (USDA 2017).

The potential for special-status plant and wildlife species to occur on the project site was evaluated based on site location, elevation, vegetation condition, vegetation/land covers, and soils present. Land covers on site were mapped in the field directly onto a 200-scale (1 inch = 200 feet) aerial base (Bing Maps 2014, 2017). Species observed during field surveys are reported in **Appendix D**.

Fauna

All wildlife species detected during the field surveys by sight, calls, tracks, scat, or other signs were recorded. Binoculars (10×40 magnification) were used to aid in the identification of observed wildlife. In addition to species actually detected, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area. Latin and common names of animals follow Crother (2012) for reptiles and amphibians, American Ornithologists' Union (AOU 2017) for birds, Wilson and Reeder (2005) for mammals, and North American Butterfly Association (NABA) (2001) or SDNHM (2002) for butterflies. Species observed during field surveys are reported in **Appendix D**.

Focused California Gnatcatcher Surveys

Surveys for the coastal California gnatcatcher (*Polioptila californica californica*) were conducted in 2014 under the authorization of permit TE-781084 (Dr. Anita M. Hayworth) according to the schedule provided in **Table 4.3-1**. The survey followed the most current protocol established by the USFWS, Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Protocol, July 28, 1997 (USFWS 1997). Updated coastal California gnatcatcher surveys are ongoing and will be completed in April 2017.

Suitable habitat within the project site was surveyed three times for the coastal California gnatcatcher and included coastal sage scrub, and disturbed forms, for a total survey acreage of approximately 3.48 acres. A topographic map of the site (scale 1 inch = 100 feet) overlain with vegetation polygons was used for the survey. Weather conditions during surveys are provided in **Table 4.3-1**. Binoculars were used to aid in detecting and identifying bird species. Taped gnatcatcher vocalizations were played frequently in order to elicit a response from the species, if present. The tape was played approximately every 50–100 feet within suitable habitat. When a gnatcatcher was detected, playing of the tape ceased in order to avoid harassment and the gnatcatcher location was recorded on the site map.

Jurisdictional Wetlands Delineation

A delineation of jurisdictional waters was conducted within the project area on March 19, 2014, and reviewed again on January 4, 2017. The entire project site was surveyed on foot for the following types of features:

- Waters of the United States, including wetlands, under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), pursuant to Section 404 of the federal Clean Water Act
- Waters of the state under the jurisdiction of the California Regional Water Quality Control Board (RWQCB), pursuant to Section 401 of the federal Clean Water Act and the Porter–Cologne Water Quality Control Act as wetlands or drainages
- Streambeds under the jurisdiction of CDFW, pursuant to Section 1602 of the California Fish and Game Code.

Wetland waters of the United States are delineated based on methodology described in the 1987 ACOE Corps of Engineers Wetlands Delineation Manual (ACOE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (ACOE 2008). ACOE and RWQCB jurisdictional wetlands are determined based on the presence of all three wetlands criteria: hydrophytic vegetation, hydrology, and hydric soils.

Non-wetland waters of the United States are delineated based on the presence of an Ordinary High Water Mark (OHWM) as determined utilizing the methodology in A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States (ACOE and EPA 2008).

In accordance with California Fish and Game Code, streambeds are determined based on the presence of a definable bed and bank and are delineated from top of bank to top of bank or the extent of associated riparian vegetation (CDFW jurisdiction). For shallow drainages and washes that do not support riparian vegetation, the top of bank measurement may be the same as the OHWM measurement.

County-regulated wetlands were identified where a predominance of hydrophytic vegetation was associated with a stream channel or where an area supported at least one of the three wetlands indicators (i.e., hydrology, hydric soils, or hydrophytic vegetation).

The jurisdictional delineation performed on site included two data stations at the locations shown on **Figure 4.3-1, Biological Resources**. Data stations were collected in pairs along a transect line with the first data point being located in the generally lower, more mesic area and the second point being located upslope, or above the OHWM and where the three jurisdictional criteria would likely no longer be met (based on elevation, vegetation, soil, and or, hydrological indicators).

Survey Limitations

Focused surveys for potentially occurring special-status plant species were conducted in April 2014 and 2017. Almost all of the potentially occurring special-status plant species have blooming periods that overlap with the survey date. An additional pass is scheduled for June 2017 to capture the summer-blooming species.

The nearest active weather station is located in San Diego Lindberg Field, southwest of the project site, and generally receives an average rainfall of approximately 9.93 inches per year (Western Regional Climate Center 2017). Average annual maximum temperatures are 67.55˚ Fahrenheit (˚F), and average minimum temperatures are 61.27˚F. Precipitation amounts for the water year (i.e. July 1 to June 30) for San Diego Lindberg Field from 2011 to 2012 were recorded at 8.03 inches, from 2012 to 2013 were recorded at 6.51 inches, and from 2013 to 2014 were recorded at 5.06 inches. Rainfall from July 1, 2016 to February 28, 2017, was recorded at 11.62 inches (Western Regional Climate Center 2017).

Focused surveys for special-status wildlife species other than coastal California gnatcatcher and reptile/small mammal trapping were not conducted for the project. Nocturnal surveys were not

conducted for the project. Birds represent the largest component of the vertebrate fauna, and because most are active in the daytime, diurnal surveys maximize the number of observations of this portion of the fauna. In contrast, daytime surveys usually result in few observations of mammals, many of which may be active at night. In addition, many species of reptiles and amphibians are nocturnal or cryptic in their habits and are difficult to observe using standard meandering transects.

4.3.3 EXISTING CONDITIONS

The SDSU campus is located within the College Area Community Planning Area in the City of San Diego. The College Area Community Planning Area consists of approximately 1,950 acres, most of which is developed with single-family residential uses. The SDSU campus can be accessed from the north by College Avenue, which also provides local access to I-8. The campus can be accessed from the south by Montezuma Road, an east–west roadway near the southern boundary of the campus. Montezuma Road also connects with I-8 via Fairmont Avenue to the west and El Cajon Boulevard to the east.

The project site is located on the U.S. Geological Survey 7.5-minute La Mesa quadrangle, in Section 15, Township 16 South, Range 2 West (**Figure 4.3-2, Vicinity Map**). The surrounding quadrangles include Del Mar, Poway, San Vicente Reservoir, La Jolla, El Cajon, Point Loma, National City, and Jamul Mountains. The approximate centroid of the project is 117°4′44.626″ W, 32°46′32.968″ N. The project site is located on Assessor's Parcel Numbers 462-130-07 and 462-130-06.

Existing Environmental Setting

Generally, land uses adjacent to the project site consist of SDSU athletic fields to the south, canyon and I-8 to the north, single-family residences to the west, and multifamily residences and institutional uses associated with SDSU to the east. From campus, the project site can be accessed via Remington Road, 55th Street, and Aztec Circle Drive.

The elevation ranges from approximately 300 feet above mean sea level (amsl) to 450 feet amsl. The project site is comprised of developed areas, ornamental plantings, and native habitat. The site slopes down into a canyon at the western side, where a drainage channel conveys runoff from rainfall and a storm drain. According to the USDA (2016), there are two soil types found within the project area, and descriptions based on the Web Soil Survey (USDA 2016) appear as follows. Olivenhain cobbly loam, 30% to 50% slopes and Olivenhain–Urban land complex, 2% to 9% slopes, are mapped within the project boundary. The Olivenhain series is a well-drained

soil, with slow or medium runoff, and very slow permeability (USDA 2016). These soils are found on gently sloping to strongly sloping hillsides, and on marine terraces. Olivenhain soils are generally very cobbly (USDA 2016).

Vegetation Communities

Five vegetation communities/land covers were mapped by Dudek within the project site. Native vegetation communities within the project area include Diegan coastal sage scrub. Three non-native vegetation communities or land cover types, disturbed habitat, urban/developed and ornamental plantings, occur within the project area. An unvegetated channel is mapped on site. The vegetation communities and land cover types listed above are described as follows; their acreages are presented in **Table 4.3-2**; and their spatial distributions are presented on **Figure 4.3-1**.

Table 4.3-2
Vegetation Communities/Land Cover Types in the Project Area

• Habitat Types/Vegetation Communities	• Existing Acres
Upland Scrub and Chaparral	
Diegan Coastal Sage Scrub (CSS)	3.31
Non-native Vegetation Community/Land Cover Types	
Ornamental Plantings (ORN)	1.47
Disturbed Habitat (DH)	0.29
Urban/Developed (DEV)	2.92
Non-vegetated Channel or Floodway (UVC)	0.04
Subtotal	*4.72*
Total	***8.02****

* Acreages may not sum due to rounding.

Diegan Coastal Sage Scrub

According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). It typically develops on xeric (dry) slopes.

Diegan coastal sage scrub and all its variants generally are recognized as sensitive plant communities by local, state, and federal resource agencies. It supports a diversity of sensitive plants and animals, and it is estimated that it has been reduced by 75% to 80% of its historical

coverage throughout Southern California. Diegan coastal sage scrub has a global rank of G3 and state rank of S3.1, meaning it is considered vulnerable[1] and is considered a sensitive biological resource by CDFW under the California Environmental Quality Act (CEQA; CDFG 2010). Diegan coastal sage scrub vegetation on site totals 3.31 acres, and is dominated by California sagebrush, coyotebrush (*Baccharis pilularis*), lemonadeberry, and laurel sumac.

Ornamental Plantings

Ornamental plantings are a land cover type that refers to areas where non-native ornamental species and landscaping schemes have been installed and maintained. Ornamental plantings is not considered a sensitive biological resource by CDFW under CEQA (CDFG 2010). Impacts to these areas do not require mitigation.

A total of 1.47 acres of ornamental plantings associated with the landscaped yards of single-family residences and the existing SDSU buildings mapped in several locations throughout the project site. This habitat type supports myriad ornamental species, including, not limited to, pampas grass (*Cortaderia selloana*), hottentot fig (*Carpobrutus edulis*), jade plant (*Crassula argentea*), Brazilian pepper tree (*Schinus terebinthifolius*), and red apple iceplant (*Aptenia cordifolia*).

Disturbed Habitat

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, vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species (i.e., weeds). Within the project site there is 0.29 acre of disturbed habitat that consists of a strip of bare ground with occasional weedy plants. This land cover is not considered a sensitive biological resource by CDFW under CEQA (CDFG 2010).

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[1] At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors (NatureServe 2017).

Urban/Developed

Urban/developed land refers to areas that have been constructed upon or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials (Oberbauer et al. 2008). Developed areas are generally graded and compacted, sometimes covered with gravel road base, or built and have little to no vegetation present. Within the project site, developed land totals 2.92 acres, and includes the existing parking lot and residence hall (**Figure 4.3-1**). This land cover is not considered a sensitive biological resource by CDFW under CEQA (CDFG 2010).

Non-vegetated Channel or Floodway

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% total cover and grows on the outer edge of the channel. Within the project site there is a 0.04-acre non-vegetated channel along the canyon bottom and an erosional feature caused from the City's storm drain outlet that connects into the channel. This land cover is not considered a sensitive biological resource by CDFW under CEQA (CDFG 2010).

Flora

A total of 153 species of native or naturalized plants, 80 native (52%) and 73 non-native (48%), was recorded on the site (see **Appendix D**).

Fauna

The project area supports habitat for common upland species. Scrub and ornamental habitats within the project area provide foraging and nesting habitat for migratory and resident bird species and other wildlife species. Due to the urbanization in the surrounding area, the fauna composition represents many urban-adapted species.

A list of the wildlife species incidentally observed within and adjacent to the project area during surveys is provided in **Appendix D**. There were 34 species observed on the project site, including two non-native species. Species richness in the project area is low due to the small property size, presence of non-native and ornamental species, low habitat diversity, and urbanization in the surrounding area. Special-status wildlife species are addressed below.

No reptile or mammal species were detected within the project area. Common bird species detected included mourning dove (*Zenaida macroura*), California scrub-jay (*Aphelocoma californica*), bushtit (*Psaltriparus minimus*), and song sparrow (*Melospiza melodia*).

Sensitive Plant Species

Endangered, rare, or threatened plant species, as defined in CEQA Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status plant species" in this report and include (1) endangered or threatened plant species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA) (CDFW 2017b); and (2) plant species with a CRPR 1 through 3 (CNPS 2017).

Special-status plant surveys were conducted within the project site to determine the presence or absence of plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 (14 CCR 15000 et seq.). A list of potentially occurring plants was generated as part of the literature review (see **Section 4.3.2**). Each species' potential to occur on site was evaluated based on the elevation, habitat, and soils present on site and Dudek's knowledge of biological resources in the area and regional distribution of each species. A number of potentially occurring plant species are conspicuous (e.g., large, woody shrubs) and readily observed if present within an open and largely disturbed site. Due to low rainfall levels during the 2014 survey year, many annuals with potential to occur would likely not have bloomed. Special-status plant species observed or with a moderate potential to occur within the project site are presented in **Appendix D**. Based on the good rainfall season in 2017, updated surveys for special status plants will demonstrate the species on site. The April 2017 pass identified one special-status plant: San Diego goldenstar (*Bloomeria clevelandii*). A second pass in June 2017 is scheduled to determine if additional species are present on the site. There are two species that are considered to have a moderate potential to occur on site that were not detectable during the spring survey pass: San Diego sand aster (*Corethrogyne filaginifolia* var. *incana*) and Del Mar Mesa sand aster (*Corethrogyne filaginifolia* var. *linifolia*). Until the surveys are completed, these two species will be assumed to be present with suitable habitat and potential impacts will be mitigated accordingly.

Special-status plant species known to occur in the surrounding region that are not expected to occur or with low potential to occur on site are presented in **Appendix D**.

Critical Habitat

There is no USFWS-designated critical habitat mapped within the project area. However, there is USFWS-designated critical habitat for two species located within 5 miles of the project area: San Diego ambrosia and spreading navarretia (*Navarretia fossalis*) (USFWS 2017).

San Diego Goldenstar (*Bloomeria clevelandii*)

San Diego goldenstar was observed during the April 2, 2017 rare plant survey. Approximately 88 individuals were observed in the northern portion of the project site in the coastal sage scrub. San Diego goldenstar is not federally or state-listed, but is a CRPR 1B.1, meaning it is considered rare, threatened, or endangered in California and elsewhere.

Special-Status Plant Species Observed On Site

Sensitive Wildlife Species

Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of CESA and FESA (CDFW 2017c); (2) California Species of Special Concern (SSC), as designated by the CDFW (2017c); (3) mammals and birds that are fully protected (FP) species, as described in the California Fish and Game Code, Sections 4700 and 3511; and (4) Birds of Conservation Concern, as designated by the USFWS (2008).

Special-status wildlife species with moderate potential to occur are presented in **Appendix D**. Special-status wildlife species known to occur in the surrounding region but absent or with low potential to occur on site are presented in **Appendix D**. For each species listed, a determination is made regarding the potential for the species to occur on site based on information gathered during the literature review and site visits, including the location of the site, vegetation communities or land covers present, current site conditions, and past and present land use. No special-status wildlife species were detected within the project site. Additional determinations will be provided after the 2017 coastal California gnatcatcher surveys.

Critical Habitat

There is no USFWS-designated critical habitat mapped within the project area. However, there is USFWS-designated critical habitat for three species located within 5 miles of the project area: coastal California gnatcatcher, and least Bell's vireo (*Vireo bellii pusillus*) (USFWS 2017).

Species with Potential to Occur On Site

Reptiles

*San Diego Tiger Whiptail (*Aspidoscelis tigris stejnegeri*)*

San Diego tiger whiptail is a CDFW SSC and has moderate potential to occur on site. It is found in coastal Southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, north into Ventura County, and south into Baja California, Mexico (Stebbins 2003).

The San Diego tiger whiptail is found in a variety of habitats, primarily in areas where plants are sparse and there are open areas for running. According to Stebbins (2003), the species ranges from deserts to montane pine forests where it prefers warmer and drier areas. The species is also found in woodland and streamside growth, and it avoids dense grassland and thick shrub growth. There is suitable arid coastal scrub habitat for this species to occur on site.

*Northern Red-Diamond Rattlesnake (*Crotalus ruber ruber*)*

The northern red-diamond rattlesnake is a CDFW SSC and has moderate potential to occur on site. It is found in a variety of habitats from the coast to the deserts, from San Bernardino County into Baja California, Mexico (below 5,000 feet in elevation). It commonly occurs in rocky areas within coastal sage scrub, chaparral, juniper woodlands, and desert habitats, but can also be found in areas devoid of rocks (Lemm 2006). There is suitable arid coastal scrub habitat for this species to occur on site.

*Blainville's Horned Lizard (*Phrynosoma blainvillii*)*

Blainville's horned lizard (previously coast horned lizard) is a CDFW SSC and has moderate potential to occur on site. It is found from the Sierra Nevada foothills and central California to coastal Southern California. It is often associated with coastal sage scrub, especially areas of level to gently sloping ground with well-drained loose or sandy soil, but it can also be found in annual grasslands, chaparral, oak woodland, riparian woodland, and coniferous forest between 30 and 7,030 feet amsl (Jennings and Hayes 1994). This reptile typically avoids dense vegetation, preferring 20% to 40% bare ground in its habitat. The Blainville's horned lizard can be locally abundant in areas where it occurs, with densities near 20 adults per acre. Adults are active from late March through late August, and young are active from August through November or December. Up to 90% of the diet of the Blainville's horned lizard consists of native harvester ants (*Pogonomyrmex* spp.). There is suitable arid coastal scrub habitat for this species to occur on site.

*Coast Patch-Nosed Snake (*Salvadora hexalepis virgultea*)*

The coast patch-nosed snake is a CDFW SSC and has moderate potential to occur on site. It ranges from west-central Nevada south to the tip of Baja California and northwestern Sonora, and from coastal Southern California to southwestern Utah and central Arizona. The coast patch-nosed snake is found at elevations from below sea level to around 2,130 meters (6,988 feet) amsl (Goldberg 1995).

The coast patch-nosed snake is diurnal (Stebbins 2003) and can be found throughout the day during the milder months of spring. Activity is restricted to the mornings and late afternoons during the summer months. As an active, diurnal snake, it will occasionally take refuge in rock crevices, in small mammal burrows, and under vegetation. May and June are the typical months of peak activity; however, in the southern part of its range, activity may extend all year during mild to warm weather. The subspecies is a broad generalist in its diet and an opportunistic feeder that probably preys on anything it can overpower including small mammals (*Dipodomys*), lizards (*Aspidoscelis*, *Coleonyx*), and the eggs of lizards and snakes (Stebbins 2003). Jennings and Hayes (1994) also found that the patch-nosed snake may adjust its activities around that of one of its prey, the whiptail lizard (*Aspidoscelis* spp.).

Birds

*Coastal California Gnatcatcher (*Polioptila californica californica*)*

The coastal California gnatcatcher is a federally listed threatened species and a CDFW SSC, and has moderate potential to occur on site. It is closely associated with coastal sage scrub habitat and typically occurs below elevations of 950 feet amsl and on slopes less than 40%, but gnatcatchers have been observed at elevations greater than 2,000 feet amsl (Zeiner et al. 1990). The species is threatened primarily by loss, degradation, and fragmentation of coastal sage scrub habitat; it is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

Focused surveys for this species were conducted in 2014 and were negative for this species. Additional surveys are currently ongoing for 2017. No California gnatcatchers have been observed during the four surveys conducted in March and April 2017.

Mammals

Special-Status Bats

There is suitable foraging habitat for special-status bats. There is moderate potential for pallid bat (*Antrozous pallidus*) and western mastiff bat (*Eumops perotis californicus*) to forage on site. There is no roosting habitat on site.

Wetlands/Jurisdictional Resources

The project site was surveyed to determine the presence of an OHWM along several potential drainage channels. An OHWM was identified along one stream channel based on an observed, defined bed and bank and other evidence of hydrology including standing water. The project site supports one non-wetland waters of the United States and state that conveys water along the canyon bottom in the project site. It likely supports flows of urban runoff, due to the proximity of the site to residential development and evidence of culverts upstream. There are no National Hydrographic Database blue-line stream channels within the project site.

This drainage is potentially regulated by the ACOE, RWQCB, and CDFW. It supports hydric soils and hydrology, but not hydrophytic vegetation. Thus, it does not qualify as a wetland or riparian habitat. The wetland determination data forms are included in Appendix D. Vegetation present along the drainage was predominantly ornamental species (e.g., pampas grass, peppertrees). The drainage observed on site had a defined bed and bank, evidence of an OHWM, a channel bed of 1 to 2 feet wide, and was continuous for greater than 250 linear feet; thus, it was determined to be a jurisdictional water. In total, there is approximately 728 linear feet of jurisdictional waters of the United States/state identified within the project site. Flows within this drainage are directed northward down the canyon and likely connect with the San Diego River. A surface connection to the river is unknown, and I-8 may disrupt any potential surface flows.

Habitat Connectivity and Wildlife Corridors

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as steppingstones for wildlife dispersal. Natural features, such as canyon drainages, ridgelines, or areas with vegetation cover, provide corridors for wildlife travel. Wildlife corridors are important because they provide

access to mates, food, and water; allow the dispersal of wildlife from high-density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife corridors are considered sensitive by resource and conservation agencies.

The project site vicinity includes existing residential development to the west and east; SDSU facilities including two baseball diamonds and tennis courts to the south; and I-8 to the north of the project site. Although much of the project site located within a north-trending canyon that feeds into Alvarado Canyon, the lower terraces of the canyon are constrained by existing development, principally I-8 and existing residential development north of I-8. However, there are other canyons located within the Alvarado Canyon system that are peripherally connected to the project site.

Due to the nearby residential areas, I-8, and SDSU campus, wildlife that move through the north-trending canyon is largely limited to urban-adapted wildlife species such as brush rabbit, coyote, bobcat, lizards and snakes, and a variety of bird species and invertebrates. Thus, the site supports a linkage function within the canyon but would not be considered a wildlife corridor because it is cut off from connection to southern portions of the county and would have more of a cul-de-sac function of habitat for species that are tolerant of the urban interface.

Canyonlands in San Diego are rapidly disappearing and are largely the only habitat corridors that still remain within urbanized areas of San Diego. The largest open space areas within the vicinity of the project area is Mission Trails Regional Park, located 3.3 miles northeast of the project site; Marine Corps Air Station Miramar, located 4.5 miles north of the project site; and Otay Mesa, located 6.7 miles southeast of the project site.

4.3.4 RELEVANT PLANS, POLICIES, AND ORDINANCES

This section describes the applicable regulatory plans, policies, and ordinances for the proposed project.

Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 U.S.C. 1531 et seq.), as amended, is administered by the USFWS) National Oceanic and Atmospheric Administration, and National Marine Fisheries Service. 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. 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."

FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans (HCPs) on private property without any other federal agency involvement. Upon development of an HCP, USFWS can issue incidental take permits for listed species.

FESA provides for designation of Critical Habitat, defined in 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 "which 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."

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursue, hunt, shoot, wound, kill trap, capture, or collect, or any attempt to carry out these activities (16 U.S.C. 703 et seq.). 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 USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Currently, birds are considered to be nesting under the MBTA only when there are eggs or chicks, which are dependent on the nest.

U.S. Army Corps of Engineers

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 in 33 CFR 328.3(b) 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." 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," which is defined in 33 CFR 328.3(e).

Section 320.4(b)(2) of the ACOE General Regulatory Policies (33 CFR 320-330) list criteria for consideration when evaluating wetland functions and values. These include wildlife habitat (spawning, nesting, rearing, and resting), food chain productivity, water quality, ground water recharge, and areas for the protection from storm and floodwaters.

State

California Endangered Species Act

CDFW administers CESA (California Fish and Game Code, Section 2050 et seq.), which prohibits the "take" of plant and animal species designated by the Fish and Game Commission as endangered 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 Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

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 (Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

California Fish and Game Code

According to Sections 3511 and 4700 of the Fish and Game Code, which regulate birds and mammals, respectively, a "fully protected" species may not be taken or possessed without a permit from the Fish and Game Commission, and "incidental takes" of these species are not authorized.

According to Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Finally, Section 3513 states that is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

For the purposes of these state regulations, CDFW currently defines 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 Fish and Game Code sections.

CDFW Streambed and Riparian Habitat

Pursuant to Section 1602 of the 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 for impacts to jurisdictional wetlands in accordance with Section 1602 of the California Fish and Game Code.

State Water Resources Control Board and Regional Water Quality Control Boards

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 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. Waters regulated under the Porter–Cologne Water Quality Control Act include isolated waters that are no longer regulated by the ACOE. Developments with impact to jurisdictional waters must demonstrate compliance with the goals of the act by developing Stormwater Pollution Prevention Plans, Standard Urban Storm Water Mitigation Plans, and other measures to obtain a Clean Water Act Section 401 certification.

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 CEQA Guidelines 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.

Natural Community Conservation Plan

Section 2835 of the Fish and Game Code allows the Department to authorize incidental take in a natural community conservation plan (NCCP). Take may be authorized for identified species whose conservation and management is provided for in the NCCP, whether or not 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 Fish and Game Code. The NCCP provides the framework for the San Diego Multiple Species Conservation Program (MSCP) Plans.

Regional

Multiple Species Conservation Program

The MSCP, a comprehensive, regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP addresses habitat and species conservation within approximately 900 square miles in the southwestern portion of San Diego County (County of San Diego 1998). It serves as an approved HCP pursuant to an approved NCCP in accordance with the state Natural Communities Conservation Planning Act (County of San Diego 1998).

The MSCP establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value that are delineated as the Multi-Habitat Planning Area (MHPA). The City's MHPA is an area within which a "hard line" preserve will be established in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

The MSCP identifies 85 plants and animals to be "covered" under the plan ("Covered Species"). Many of these Covered Species are subject to one or more protective designations under state and/or federal law and some are endemic to San Diego. The MSCP seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species, while also allowing participating landowners "take" of Covered Species on lands located outside of the preserve. The purpose of the MSCP is to address species conservation on a regional level and thereby avoid project-by-project biological mitigation, which tends to fragment habitat.

Within the City of San Diego, the MSCP is implemented through the City of San Diego MSCP Subarea Plan (Subarea Plan) (City of San Diego 1997) as described below.

SDSU was not involved with the preparation of the MSCP program in the mid-1990s. SDSU is not a signatory to the San Diego MSCP and is therefore not a "permittee" under this HCP. Because SDSU is not a Permittee of this HCP and because SDSU does not need to obtain any entitlements that would constitute a discretionary action by the City, adherence to the restrictions typically placed on land within the MHPA as per the City's Biological Resource Guidelines does not apply to SDSU or SDSU-owned land. However, the project's relationship to the MSCP is provided for informational purposes.

Local

City of San Diego MSCP Subarea Plan

The City of San Diego Subarea Plan (1997) encompasses 206,124 acres within the MSCP Subregional Plan area. The site is located within the Urban area of the Subarea Plan. Urban habitat areas within the MHPA include existing designated open space such as Mission Bay, Tecolote Canyon, Marian Bear Memorial Park, Rose Canyon, San Diego River, the southern slopes along Mission Valley, Carroll and Rattlesnake Canyons, Florida Canyon, Chollas Creek, and a variety of smaller canyon systems. The Eastern area of the Subarea Plan includes East Elliott and Mission Trails Regional Park.

The Subarea Plan is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. As discussed above in the context of the MSCP, the City MHPA is an area within which a "hard line" preserve will be developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997). The

MHPA is considered an urban preserve that is constrained by existing or approved development, and is comprised of habitat linkages connecting several large core areas of habitat (see Figure 1-3, Multi-Habitat Planning Area and Figure 1-4, Core Areas and Habitat Linkages, in City of San Diego 1997). The criteria used to define core and linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside of the MSCP either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained (City of San Diego 1997). Critical habitat linkages between core areas are conserved in a functional manner with a minimum of 75% of the habitat within identified linkages conserved (City of San Diego 1997).

The CSU Board of Trustees is the lead agency on this project and is not subject to the MSCP; however, further information is provided herein with regards to the MSCP. A portion of the proposed project site was designated as MHPA and described as conserved lands. Habitrak is a GIS-based habitat-tracking tool created at the request of the wildlife agencies during initial implementation of the MSCP program. The City and County of San Diego use Habitrak to prepare their habitat tracking reports; areas that are removed from the MHPA are designated as a "habitat loss" and areas that are considered to be protected by a conservation mechanism such as a restrictive covenant are designated as "habitat gain." Inclusion of this project site within the MHPA and reflecting it as a "habitat gain" in the Habitrak system is incorrect. On March 23, 2017, representatives from SDSU and Dudek met with City of San Diego Environmental Review Coordinator, Alyssa Muto, Senior Multiple Species Conservation Program Planner Kristy Forburger and Senior Planner Rebecca Malone to discuss the removal of the MHPA designation over the site and removal of the area as a "habitat gain" in the Habitrak database (see **Appendix D**, which outlines the correspondence related to this mapping correction exercise). Based on review of a title report prepared in February 2017 for the project parcels and review of City records, the City concurred with SDSU that the designation of the portion of the property as a "habitat gain" is an error.

The MSCP Implementing Agreement does not provide direction for corrections to the MHPA designation, thus, the City will leave the designation of MHPA as is, recognizing that SDSU is not subject to the MSCP and so, in effect, designation of MHPA has no meaning on these specific parcels. During the March 23, 2017 meeting, the City agreed that it was appropriate to remove the project parcels from the "habitat gain" database and upon receipt of SDSU's final impact footprint, redesignate the areas planned for development as a "habitat loss." SDSU will accompany the City to a meeting with the US Fish and Wildlife Service and California

Department of Fish and Wildlife, set for April 2017, to discuss the process, if any, the City must go through to officially remove the SDSU-owned land from the "habitat gain" database.

City of San Diego Biology Guidelines

The City of San Diego Development Services Department developed the Biology Guidelines presented in the Land Development Manual "to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations (ESL), San Diego Land Development Code (LDC), Chapter 14, Division 1, Section 143.0101 et seq, and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq." (City of San Diego 2012). The guidelines also provide standards for the determination of impact and mitigation under CEQA. The State of California is the lead agency is not subject to the City of San Diego's guidelines; however, this biological resources technical report includes the same level of detail and analysis that is required by the City for a report that is within the jurisdiction of the City of San Diego.

4.3.5 THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate the project impacts to biological resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to biological resources would occur if the project would:

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 California Department of Fish and Game or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
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.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

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

7. Result in a cumulative impact when considered with other present and probable future projects in the region

4.3.6 IMPACTS ANALYSIS

Following the issuance of the Notice of Preparation (NOP) for the proposed project, CSU/SDSU received multiple comment letters from public and private entities regarding biological resources. Comments included concerns over disturbance of sensitive canyon habitat and native species, as well as impacts to MSCP-protected land. Commenters also recommended the preparation of a biological resources impact assessment included in the DEIR. The analysis presented below addresses each of these topics.

Would the 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 the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Direct Impacts

The proposed project and associated fuel management zones will impact five vegetation communities and land cover types, including up to 0.59 acre of coastal sage scrub from Phase II and 1.92 acres of coastal sage scrub from Phase III (**Table 4.3-3**; **Figure 4.3-3 Impacts to Biological Resources**).

Table 4.3-3
Impacts to Vegetation Communities/Land Cover Types by Phase

Habitat Types/Vegetation Communities	Existing Acres	No Impact/ Existing Chapultepec Hall (Ac.)	Direct Impacts (Incl. Fuel Management Zones)			
			Phase I (Ac.)	*Phase II (Ac.)*	*Phase III (Ac.)*	*Total*
Upland Scrub and Chaparral						
Diegan Coastal Sage Scrub (CSS)	3.31	0.79	--	0.59	1.92	***2.51***
Non-native Vegetation Community/Land Cover Types						
Ornamental Plantings (ORN)	1.47	0.17	0.35	0.29	0.66	***1.30***
Disturbed Habitat (DH)	0.29	0.19	--	--	0.10	***0.10***
Urban/Developed (DEV)	2.92	0.74	1.96	0.14	0.08	***2.18***

Table 4.3-3
Impacts to Vegetation Communities/Land Cover Types by Phase

Habitat Types/Vegetation Communities	Existing Acres	No Impact/ Existing Chapultepec Hall (Ac.)	Direct Impacts (Incl. Fuel Management Zones)			
			Phase I (Ac.)	*Phase II (Ac.)*	*Phase III (Ac.)*	*Total*
Non-vegetated Channel or Floodway (UVC)	0.04	0.02	--	<0.01	--[1]	***<0.01***
Subtotal	*4.72*	*1.11*	*2.31*	*0.43*	*0.84*	***3.48***
Total	**8.02[2]**	**1.90**	**2.31**	**1.03**	**2.76**	**6.09**

1 There are fuel management activities; however, these activities include thinning upland vegetation and would not result in impacts to the drainage.

2 May not total due to rounding.

Special-Status Plants

San Diego goldenstar was observed in the project site (Figure 4.3-3). There are two additional special-status plants that have a moderate potential to occur on site including: San Diego sand aster and Del Mar Mesa sand aster. An additional summer pass for rare plants will be conducted in June 2017.

Phase I

The impacts associated with Phase I are limited to the ornamental plantings surrounding the building and the developed areas. No special-status plants would be impacted from this phase. Therefore, it would not have a substantially adverse effect on special-status plants and would not be considered a significant impact.

Phase II

The impacts associated with Phase II would impact 0.59 acre of coastal sage scrub, which has potential to support special-status plants. No San Diego goldenstar was observed in the Phase II development area. Potential impacts to other special-status plants would be considered a significant impact absent mitigation.

Phase III

The impacts associated with Phase III would be approximately 88 individuals of San Diego goldenstar from the proposed development and associated fuel modification. Impacts to 1.92 acres of coastal sage scrub could result in potential impacts to additional special-status plants.

Impacts to San Diego goldenstar and potential impacts to additional special-status plants would be considered a significant impact absent mitigation. ***Coastal California Gnatcatcher***

While the 2014 surveys for this species were negative, coastal California gnatcatcher has moderate potential to occur in the coastal sage scrub on site. Current surveys for the species are being conducted in 2017. Coastal California gnatcatcher is a federally listed threatened species and a CDFW SSC.

Phase I

The impacts associated with Phase I are limited to the ornamental plantings surrounding the building and the developed areas. No suitable habitat for coastal California gnatcatcher would be impacted from this phase. Therefore, it would not have a substantially adverse effect on coastal California gnatcatcher and would not be considered a significant impact.

Phase II

The impacts associated with Phase II would impact 0.59 acre of coastal sage scrub, which has potential to support coastal California gnatcatcher. Impacts to individual gnatcatchers and/or potentially occupied habitat would be considered a significant impact absent mitigation.

Phase III

The impacts associated with Phase III would impact 1.92 acres of coastal sage scrub, which has potential to support coastal California gnatcatcher. Impacts to individual gnatcatchers and/or potentially occupied habitat would be considered a significant impact absent mitigation.

Special-Status Reptiles

San Diegan tiger whiptail, northern red-diamond rattlesnake, Blainville's horned lizard, and coast patch-nosed snake have moderate potential to occur in the coastal sage scrub on site. These species are not federally or state-listed as threatened or endangered, but are CDFW SSC.

Phase I

The impacts associated with Phase I are limited to the ornamental plantings surrounding the building and the developed areas. No suitable habitat for special-status reptiles would be impacted from this phase. Therefore, it would not have a substantially adverse effect on special-status reptiles and would not be considered a significant impact.

Phase II

The impacts associated with Phase II would impact 0.59 acre of coastal sage scrub, which has potential to support special-status reptiles. Impacts to 0.59 acre of coastal sage scrub would be considered a significant impact absent mitigation.

Phase III

The impacts associated with Phase III would impact 1.92 acres of coastal sage scrub, which has potential to support special-status reptiles. Impacts to 1.92 acres of coastal sage scrub would be considered a significant impact absent mitigation.

Special-Status Mammals

Pallid bat and western mastiff bat have moderate potential to forage on site, primarily in the coastal sage scrub and ornamental plantings. These species are not federally or state-listed as threatened or endangered, but are CDFW SSC. These species would not roost on site due to the lack rocky outcrops or buildings suitable for these species. While there are impacts to potential suitable foraging habitat associated with Phases I through III, these impacts would not have a substantially adverse effect on these species and would not be considered a significant impact.

Birds Protected Under the MBTA

If construction activities associated with Phases I through III occur during the bird nesting season (typically February 1 through September 15), impacts to migratory birds or destruction of active migratory bird nests and/or eggs would be considered a significant impact because they are protected under the MBTA.

Indirect Impacts

Short-Term Indirect Impacts to Special-Status Plants (all Phases)

Potential short-term or temporary indirect impacts to special-status plants adjacent to the development 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). Potential short-term indirect impacts associated with Phases I through III could affect the special-status plants if they occur adjacent to the project site described in detail as follows.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Changes in Hydrology. Construction could result in hydrologic and water-quality-related impacts adjacent to and downstream of the limits of grading. Hydrologic alterations include changes in flow rates and patterns in drainages and dewatering, which may affect adjacent and downstream (off-site) aquatic, wetland, and riparian vegetation communities. Water-quality impacts include chemical-compound pollution (fuel, oil, lubricants, paints, release agents, and other construction materials), erosion, and excessive sedimentation. Direct impacts, as described previously, can also remove native vegetation and increase runoff from roads and other paved surfaces, resulting in increased erosion and transport of surface matter into vegetation communities. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants. Changed hydrologic conditions can also alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect special-status plants. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

Potential short-term indirect impacts associated with Phases I through III could be significant absent mitigation.

Long-Term Indirect Impacts to Special-Status Plants

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the proposed development to special-status plants adjacent to the project site after construction. Permanent indirect impacts associated with Phases I through III that could affect special-status plants include generation of fugitive dust, habitat fragmentation, chemical pollutants, altered hydrology, non-native invasive species, increased human activity, and alteration of the natural fire regime. Each of these potential indirect impacts is discussed as follows.

Generation of Fugitive Dust*. The* effects of fugitive dust on special-status plants are described above.

Habitat Fragmentation. Habitat fragmentation and isolation of plant populations may cause extinction of local populations as a result of two processes: reduction in total habitat area, which reduces effective population sizes, and insularization of local populations, which affects dispersal rates (Wilcox and Murphy 1985; Wilcove et al. 1986). Although these effects are more readily observable in wildlife, there are potential ecological effects, such as changes in pollinator populations that can result in altered plant community composition and, thus, adversely affect special-status plants.

Chemical Pollutants. The effects of chemical pollutants on special-status plant species are described above. During landscaping activities, herbicides may be used to prevent certain types of vegetation from reoccurring around structures. However, weed control treatments shall include only legally permitted chemical, manual, and mechanical methods. Additionally, the herbicides used during landscaping activities will be contained within the project impact footprint.

Altered Hydrology. Water would be used for landscaping purposes that may alter the on-site hydrologic regime. These hydrologic alterations may affect special-status plant communities. Altered hydrology can allow for the establishment of non-native plants and invasion by Argentine ants (*Linepithema humile*), which can compete with native ant species that could be seed dispersers or plant pollinators. However, the water, and associated runoff, used during landscaping activities will be contained within the project impact footprint, and long-term indirect impacts associated with altered hydrology are not expected.

Non-native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including, but not limited to, exotic plant competition for light, water, and nutrients and the formation of thatches that block sunlight from reaching smaller native plants. The project site already contains invasive species (e.g., pampas grass). Exotic plant species may establish adjacent to the project site, and alter habitats and displace native species over time, leading to extirpation of native plant species and unique vegetation communities. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within vegetation communities and special-status plant populations.

Increased Human Activity. The proposed project is to provide more on-campus student housing facilities. Increased human activity could result in the potential for trampling of

vegetation outside of the impact footprint, as well as soil compaction, and could affect the viability of plant communities. Trampling can alter the ecosystem, creating gaps in vegetation and allow exotic, non-native plant species to become established, leading to soil erosion. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion. An increased human population increases the risk for damage to vegetation communities and special-status plants.

Alteration of the Natural Fire Regime. The proposed project could potentially increase the risk of fire in the canyon, including, but not limited to, fire associated with electrical shorts or electrical equipment malfunction. However, fire management analysis is provided by the Fire Protection Plan (Dudek 2017) and no fire suppression actions are proposed for the site that would modify fire intervals.

Potential long-term indirect impacts associated with Phases I through III could be significant absent mitigation.

Short-Term Indirect Impacts to Special-Status Wildlife Species

Short-term, construction-related, or temporary indirect impacts to special-status wildlife species that have moderate potential to occur (see **Appendix D**) would primarily result from construction activities. Potential temporary indirect impacts could occur as a result of generation of fugitive dust, noise, chemical pollutants, increased human activity, and non-native animal species.

Generation of Fugitive Dust. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Noise. Construction-related noise could occur from equipment used during vegetation clearing and construction of the school and associated infrastructure. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, cited in Lovich and Ennen 2011).

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate nearby surface waters and groundwater and indirectly impact wildlife species through poisoning or altering suitable habitat.

Increased Human Activity. Construction activities adjacent to the canyon can deter wildlife from using already constrained habitat areas near the proposed project footprint.

Non-native Animal Species. Trash from construction-related activities could attract invasive predators, such as ravens (*Corvus corvax*) and coyotes (*Canis latrans*), that could impact the wildlife species in the project site.

Potential short-term indirect impacts associated with Phases I through III could be significant absent mitigation.

Long-Term Indirect Impacts to Special-Status Wildlife Species

Potential long-term or permanent indirect impacts associated with Phases I through III to special-status wildlife species that have high potential to occur (see **Appendix D**) include generation of fugitive dust; non-native, invasive plant and animal species; habitat fragmentation; increased human activity; alteration of the natural fire regime; and altered hydrology.

Generation of Fugitive Dust. The effects of fugitive dust on special-status wildlife are described above.

Non-native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including, but not limited to, the fact that exotic plants compete for light, water, and nutrients, and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and subsequently suitable habitat for special-status wildlife species. In addition, trash can attract invasive predators, such as ravens and coyotes, that could impact the wildlife species in the project area.

Habitat Fragmentation. The proposed project will impact approximately 4.58 acres of vegetation communities and land covers, resulting in potential habitat fragmentation. Habitat fragmentation can reduce diversity of species, spread invasive species, and reduce access to

important habitats (Lovich and Ennen 2011). In addition, habitat fragmentation of wildlife populations may cause extinction of local populations as a result of the reduction in total habitat area, which reduces effective population sizes (Wilcox and Murphy 1985; Wilcove et al. 1986).

Increased Human Activity. The proposed project is to provide more on-campus student housing facilities. Increased human activity could result in the potential for trampling of vegetation outside of the impacts footprint and soil compaction, and could affect the viability and function of suitable habitat for wildlife species. An increased human population increases the risk for damage to suitable habitat for wildlife species. In addition, increased human activity can deter wildlife from using habitat areas near the proposed project footprint.

Alteration of the Natural Fire Regime. The proposed project could potentially increase the risk of fire in the canyon, including, but not limited to, fire associated with infrastructures. However, fire management analysis is provided by the Fire Protection Plan (Dudek 2017) and no fire suppression actions are proposed for the site that would modify fire intervals.

Altered Hydrology. Water would be used for landscaping purposes that may alter the on-site hydrologic regime. These hydrologic alterations may affect special-status wildlife species. Altered hydrology can allow for the establishment of non-native plants and invasion by Argentine ants, which can compete with native ant species that could be seed dispersers or plant pollinators. Changes in plant composition could affect the native vegetation communities and wildlife habitat. However, the water, and associated runoff, used during landscaping activities will be contained within the project impact footprint, and long-term indirect impacts associated with altered hydrology are not expected.

Potential long-term indirect impacts associated with Phases I through III could be significant absent mitigation .

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

Direct Impacts

Diegan coastal sage scrub is considered a sensitive natural community by CDFW under CEQA (CDFG 2010). The project site does not support any riparian habitat. It is comprised entirely of upland habitat or urban areas. The project site does have a drainage channel on-site that is

primarily fed from urban runoff and rain. The drainage channel likely connects to the San Diego River further downstream and is potentially regulated by ACOE, RWQCB, and CDFW.

Phase I

The impacts associated with Phase I are limited to the ornamental plantings surrounding the building and the developed areas. No sensitive natural communities or riparian habitat would be impacted from this phase. Therefore, it would not have a substantially adverse effect on sensitive natural communities or riparian habitat and would not be considered a significant impact.

Phase II

The development and associated fuel management impacts associated with Phase II would impact 0.59 acre of coastal sage scrub, a sensitive natural community. These impacts would be considered a significant impact absent mitigation.

The proposed project quantifies impacts to less than 0.01 acre of the unvegetated drainage. The final project design would avoid this resource; therefore, it would not have a substantially adverse effect on the drainage and would not be considered a significant impact. There are fuel management activities that will occur near the drainage; however, these activities include thinning upland vegetation and would not result in impacts to the drainage.

Phase III

The development and associated fuel management impacts associated with Phase III would impact 1.92 acres of coastal sage scrub, a sensitive natural community. These impacts would be considered a significant impact absent mitigation. There are fuel management activities that will occur near the drainage; however, these activities include thinning upland vegetation and would not result in impacts to the drainage. These impacts would be considered significant absent mitigation.

Indirect Impacts

<u>Sensitive Natural Communities</u>

Potential short-term and long-term indirect impacts associated with Phases I through III would be the same as those previously described for special-status plants. These potential impacts would be significant absent mitigation.

Jurisdictional Waters

Potential short-term and long-term indirect impacts are similar to those described previously for special-status plants.

Short-Term Indirect Impacts to Jurisdictional Waters

Potential short-term or temporary indirect impacts to jurisdictional waters and wetlands adjacent to or downstream from the development site would primarily result from construction activities and include impacts related to or resulting from changes in hydrology resulting from construction, including sedimentation and erosion, and the introduction of chemical pollutants (including herbicides). Potential short-term indirect impacts associated with Phases I through III that could affect jurisdictional waters and wetlands that occur adjacent to or downstream from project site are described in detail as follows.

Changes in Hydrology. Construction could result in hydrologic and water-quality-related impacts adjacent to and downstream of the construction area. The effects of changes in hydrology would be similar to those previously described.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect jurisdictional waters. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

Potential short-term indirect impacts associated with Phases I through III could be significant absent mitigation.

Long-Term Indirect Impacts to Jurisdictional Waters

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the proposed development to jurisdictional waters and wetlands after construction, including impacts related to operation and maintenance. Operation and maintenance activities will occur within the impact footprint. Permanent indirect impacts associated with Phases I through III that could affect jurisdictional waters and wetlands include generation of fugitive dust, habitat fragmentation, chemical pollutants, altered hydrology, non-native invasive species, increased human activity, and alteration of the natural fire regime. Each of these potential indirect impacts is discussed as follows.

Generation of Fugitive Dust. The effects of fugitive dust on jurisdictional waters are described above.

Habitat Fragmentation. The effects of habitat fragmentation would be similar to those described previously. Although these effects are more readily observable in wildlife, there are potential ecological effects, such as changes in pollinator populations, which can result in altered plant community composition and, thus, adversely affect jurisdictional waters and wetlands.

Chemical Pollutants. The effects of chemical pollutants on jurisdictional waters and wetlands are described above.

Altered Hydrology. Water used for landscaping purposes may alter the on-site hydrologic regime. These hydrologic alterations may affect jurisdictional waters and wetlands. However, the water, and associated runoff, used during landscaping activities will be contained within the project impact footprint, and long-term indirect impacts associated with altered hydrology are not expected.

Non-native, Invasive Plant and Animal Species. The effects of chemical pollutants would be similar to those described previously. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within jurisdictional waters and wetlands.

Increased Human Activity. The effects of increased human activity would be similar to those described previously. An increased human population increases the risk for damage to jurisdictional waters and wetlands.

Potential long-term indirect impacts associated with Phases I through III could be significant absent mitigation.

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

There are no wetlands within or adjacent to the project site. Therefore, there would be no impacts associated with Phases I through III to federally protected wetlands.

Would the project 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?

Direct Impacts

The proposed project site includes a portion of the canyon situated between the existing SDSU buildings/parking lot and the homes to the west/northwest along Hewlett Drive. Due to the development of canyonlands in San Diego County and loss of remaining habitat, impacts to the canyon could interfere with native wildlife species. While coastal California gnatcatcher were not detected in the 2014 surveys, this species has potential to occur in the coastal sage scrub.

Phase I

The impacts associated with Phase I are limited to the ornamental plantings surrounding the building and the developed areas outside of the canyon. Therefore, it would not have a substantially adverse effect on wildlife movement and would not be considered a significant impact.

Phase II

The development and associated fuel management impacts associated with Phase II would impact 0.59 acre of coastal sage scrub near Remington Road. This flatter portion of the project site is adjacent to ornamental plantings and the parking lot and is unlikely to support dispersal and movement between connected canyons. Therefore, it would not have a substantially adverse effect on wildlife movement and would not be considered a significant impact.

Phase III

The development and associated fuel management impacts associated with Phase III would impact1.92 acres of coastal sage scrub in portions of the canyon. If coastal California gnatcatcher occupy the coastal sage scrub on site, impacts to this site could interfere with gnatcatcher movement and dispersal in these canyons and would be considered a significant impact absent mitigation.

Indirect Impacts

Short-Term Indirect Impacts

Short-term indirect impacts associated with Phases I through III to habitat connectivity and wildlife corridors could result from increased human activity and lighting.

Increased Human Activity. Project construction would likely take place during the daytime and would not affect wildlife species such as mammals that are most active in evenings and nighttime. Wildlife species such as birds, rabbits, and lizards are active in the daytime. Some species use a variety of habitats and could continue using other areas within and adjacent to the project site for wildlife movement; however, the native habitat in the canyon is already constrained, and construction activities would further reduce wildlife use.

Lighting. No nighttime lighting will occur during construction of the proposed project.

Potential short-term indirect impacts associated with Phases I through III would be significant absent mitigation.

Long-Term Indirect Impacts

Long-term indirect impacts associated with Phases I through III include lighting and increased human activity.

Lighting. The buildings and parking areas would include security lighting, which could affect the wildlife species in the adjacent canyon.

Increased Human Activity. Increased human activity could result in increased noise, potentially affecting the remaining canyon and suitable habitat for wildlife species. An increased human population increases the risk for damage to suitable habitat for wildlife species. In addition, increased human activity can deter wildlife from using habitat areas near the proposed project footprint.

Potential long-term indirect impacts could be significant absent mitigation (**Impact BIO-14**).

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

The lead agency, the State of California, is a state agency; therefore, it is not subject to the policies and ordinances set forth by local agencies such as the City or County of San Diego,

which might maintain a local tree preservation policy or ordinance. Therefore no impact would occur.

Would the 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?

Direct Impacts

SDSU is not a signatory to the San Diego MSCP and thus is not a "permittee" under this HCP. As such, SDSU is not subject to the MSCP and need not comply with its provisions. Because SDSU is not subject to the policies and ordinances set forth by the MSCP, the project will not impact this regional HCP. Indirect Impacts

SDSU reviewed Chapter 1.4, Land Use Considerations, 1.4.2, General Planning and Design Guidelines of the City of San Diego's MSCP Subarea Plan (City of San Diego 1997) to determine if construction of the project adjacent to an area designated as MHPA which is intended to support an element of the eventual MSCP preserve, would affect the City's ability to comply with the provisions of their Subarea Plan. Based on this review, SDSU determined that the proposed project would not involve construction of roads or utility lines within undeveloped habitat; any roadway and utility extensions would be contained within the development footprint of the proposed project, therefore the project wouldn't result in an indirect impact to habitat areas as a result of utility and roadway infrastructure. SDSU plans to fence both the construction site and student housing community once constructed, to prevent student, staff and visitors from entering the canyon areas to the north of the proposed buildings. SDSU will utilize chain link or cattle wire or similar fencing to ensure that human access to the canyon from SDSU's land is avoided. Other than lighting in the residence hall rooms and security lighting at entrances (which generally face west, south and east, as opposed to northward toward sensitive habitat areas), the buildings will not be affixed with exterior lighting, therefore the project would avoid conflicts with the Subarea Plan's lighting and fencing adjacency guidelines. SDSU would store and utilize all hazardous materials, chemicals and substances (ie, janitorial supplies) consistent with their use and storage recommendations; all such materials and substances would be stored within the building or appropriate enclosures consistent with Occupational Health and Safety and SDSU Environmental Health and Safety protocol. No storage of these chemicals and substances would occur within the canyon area to the north of the proposed project site; therefore the project would not be inconsistent with the Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas. The project

would not involve any type of mining or extraction activity, so no inconsistency with the Subarea Plan's mining and extraction policies would occur. No portion of the project would involve affects to drainages that could alter the area's natural flood control characteristics, therefore no inconsistency with flood control provisions would occur.

SDSU also reviewed Section 1.4.3, Land Use Adjacency Guidelines, of Chapter 1.4, Land Use Considerations of the City's Subarea Plan. Similar to the guidelines above, Section 1.4.3 outlines the City's policies related to eight land development considerations: drainage, toxics, lighting, noise, barriers, invasives, brush management and grading/land development. Although SDSU is not subject to these guidelines, an analysis of consistency with each provision is provided to ensure that the proposed project does not hinder the City's ability to meet the requirements of their Subarea Plan.

Drainage. The proposed project's drainage system would mirror existing conditions. All drainage would be captured on site and filtered/treated before being released into the existing storm drain system. Therefore, the proposed project would not be inconsistent with the City's drainage guidelines in Section 1.4.3 of the Subarea Plan.

Toxics. Any onsite landscaped areas (which would not directly abut the sensitive habitat area to the north) would be treated with standard fertilizers as per SDSU's typical landscaping protocols and schedules. Any runoff from these areas would be directed to the onsite drainage/filtration system which would treat all runoff before it is directed to the existing storm drain system. Therefore the project would not be inconsistent with the City's provision for use/filtration of landscape fertilizers and chemicals.

Lighting. As indicated above, lighting of the proposed buildings on the north side of structures would be limited to lights from residence hall rooms. All security lighting on the west, south and east sides of the building will be affixed with motion detectors so as to prevent excess light of the surrounding areas.

Noise. During construction, preconstruction surveys (see Mitigation Measures below), will be conducted in order to determine presence of sensitive wildlife. Construction will follow the guidelines outlined in these mitigation measures in order to minimize impacts to sensitive wildlife that may be in the canyon to a level below significance. All outdoor congregation areas or plazas will be on the south side of the buildings, oriented toward Remington Road and 55th Street as opposed to along the north of the project site. Therefore the proposed project would not result in a significant noise impact to sensitive canyon resources.

Barriers. As indicated above, the proposed construction site would be fenced to prevent wildlife intrusion into work areas and to prevent human intrusion into adjacent canyon areas. Once constructed, the proposed buildings would be fenced to prevent SDSU students, staff and visitors from accessing canyon areas from the project site.

Invasives. Any replanting of hillside areas that have been affected during construction will consist of native plants that are drought tolerant and adhere to the City's brush management guidelines. Therefore, the project would be consistent with the Subarea Plan's objectives for invasive species avoidance.

Brush Management. The proposed project's brush management program (described in the March 2017 Hazards Technical Report for the proposed project) would be consistent with the City's provisions for set-backs and vegetation use. Further, any planting would consist of drought tolerant and native plant species. Any vegetation clearing shall occur consistent with mitigation described below to avoid impacts to potential special status plant species. Therefore, the proposed project would be consistent with this provision of the City's Subarea Plan.

Grading/Land Development. All grading and land development work that is necessary for the project would be contained within the project impact footprint as described above in the impact evaluation for biological resources. Therefore, the project would be consistent with this provision of the City's Subarea Plan.

Would the project result in a cumulative impact when considered with other present and probable future projects in the region?

The proposed project, when combined with existing and probable future projects within the City could contribute to cumulative impacts on biological resources. The proposed project has potentially significant direct and indirect impacts to special-status plants; coastal California gnatcatcher; special-status reptiles; special-status mammals; birds protected under the MBTA; a sensitive natural community; and wildlife movement if the coastal California gnatcatcher is present. Absent mitigation, these impacts would make a cumulatively considerable contribution to a significant cumulative effect on the species in question. Of the projects described in Section 4.3.1, the City's on-going or proposed projects would likely contribute to indirect impacts to biological resources from increased human activity, fugitive dust, pollutants, altered hydrology, and introduction of non-native species. Specifically, the Friar's Road Residential Mixed Use project proposes impacts to 0.92 acres of Diegan coastal sage scrub (including disturbed) and indirect impacts on nesting raptors; mitigation for impacts to coastal sage scrub are through the

payment into the City's Habitat Acquisition Fund (City of San Diego 2016). In addition, future SDSU projects may have a direct and/or indirect impact on these biological resources. These include the 120-room hotel, Adobe Falls Phase 1, Adobe Falls Phase 2, and the Education Building Replacement. Based on the available information for Adobe Falls Phase 1, this project may have significant impacts to coastal sage scrub, coastal California gnatcatcher, and jurisdictional resources.

SDSU will reduce impacts associated with the New Student Housing Project to less than significant through implementation of mitigation measures. Direct impacts to sensitive natural communities, special-status species, or wildlife movement if coastal California gnatcatcher is present would be mitigated through MM-BIO-1 (nesting bird survey), MM-BIO-7 and MM-BIO-9 (coastal California gnatcatcher), and MM-BIO-8 and MM-BIO-10 (habitat mitigation); potential indirect impacts would be mitigated through MM-BIO-2 (construction monitoring and reporting), MM-BIO-3 (construction fencing), MM-BIO-4 (invasive species prohibition), MM-BIO-5 (lighting plan), and MM-BIO-6 (noise). These measures will reduce cumulative impacts to **less than significant.**

4.3.7 MITIGATION MEASURES

The following mitigation measure(s) would reduce the potential for direct and indirect impacts on special-status plant and wildlife species, sensitive natural communities, jurisdictional waters, and wildlife corridors by ensuring that special-status resources would be avoided to the extent possible and compensatory mitigation provided to address unavoidable significant impacts. Implementation of the following mitigation measures (MMs) would reduce impacts to a **less-than-significant level.**

PHASE I

MM-BIO-1 **NESTING BIRD SURVEY:** If construction activity occurs during the breeding season (typically February 1 through September 15), a one-time biological survey for nesting bird species shall be conducted within the proposed impact area and a 300-foot buffer within 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting raptors (e.g., Cooper's hawk (*Accipiter cooperii*) and red-tailed hawk (*Buteo jamaicensis*) and/or birds protected by the federal Migratory Bird Treaty Act. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum of a 25-foot buffer and up to a maximum of 300 feet for

raptors, as determined by the project biologist, and will be avoided until the nesting cycle is complete.

MM-BIO-2 CONSTRUCTION MONITORING AND REPORTING: To prevent inadvertent disturbance to areas outside the limits of grading for each phase, all grading shall be monitored by a biologist. The biological monitor shall be contracted to perform biological monitoring during all grading, clearing, grubbing, and construction activities.

The following shall be completed:

1. The project biologist also shall perform the following duties:
    a. Attend the preconstruction meeting with the contractor and other key construction personnel prior to clearing, grubbing, or grading to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).
    b. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas and of minimizing harm to or harassment of wildlife prior to clearing, grubbing, or grading.
    c. Review and/or designate the construction area in the field with the contractor in accordance with the final grading plan prior to clearing, grubbing, or grading.
    d. Supervise and monitor vegetation clearing, grubbing, and grading weekly to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved and to document that protective fencing is intact.
    e. Flush special-status species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities.
    f. Verify that the construction site is implementing the following stormwater pollution prevention plan best management practices: dust-control, silt fencing, removal of construction debris and a clean work area, covered trash receptacles that are animal-proof and weather-proof, prohibition of pets on the construction site, and a speed limit of 15 miles per hour during the daylight and 10 miles per hour during dark hours.
    g. Periodically monitor the construction site after grading is completed and during the construction phase to see that artificial security light fixtures

are directed away from open space and are shielded and to document that no unauthorized impacts have occurred.

h. Keep monitoring notes for the duration of the project for submittal in a final report to substantiate the biological supervision of the vegetation clearing and grading activities and the protection of the biological resources.

i. Prepare a monitoring report after the construction activities are completed, which describes the biological monitoring activities; including a monitoring log; photos of the site before, during, and after the grading and clearing activities; and a list of special-status species observed.

MM-BIO-3 **FENCING:** To prevent inadvertent disturbance to sensitive vegetation and species within or adjacent to the project area, fencing shall be installed prior to construction activities associated with each phase of development. The fencing shall be placed to protect from inadvertent disturbance outside of the limits of grading as well as to prevent unauthorized access into the canyon.

MM-BIO-4 **INVASIVE SPECIES PROHIBITION:** The final landscape plans shall comply with the following: (1) no invasive plant species as included on the most recent version of the California Invasive Plant Council (Cal-IPC) California Invasive Plant Inventory for the project region shall be included, and (2) the plant palette shall be composed of native species that do not require high irrigation rates. The project biologist shall periodically check landscape products for compliance with this requirement.

MM-BIO-5 LIGHTING PLAN: The lighting shall be designed to minimize light pollution within native habitat areas, while enhancing safety, security, and functionality. All artificial outdoor light fixtures shall be installed so they are directed away from the undeveloped canyon. Light fixtures shall be installed in conformance with the County Light Pollution Code, the Building Code, the Electrical Code, and any other related state and federal regulations such as California Title 24.

MM-BIO-6 NOISE: For any work proposed between February 1 and September 15, prior to start of construction activities, a qualified biologist shall conduct a pre-construction survey for the coastal California gnatcatcher to document the presence/absence and extent of occupied habitat. The pre-construction survey area for the coastal California gnatcatcher shall encompass all habitats within the impact area, as well as within a 300-foot buffer. If a coastal California gnatcatcher nest is detected, on-site noise reduction techniques shall be implemented to

ensure that construction noise levels do not exceed 60 A-weighted decibels L_{eq-h} at the nest location.

Phase II

Impacts associated with Phase II are subject to mitigation measures MM-BIO-1 through MM-BIO-6, described above, as well as the following mitigation measures:

MM-BIO-7 COASTAL CALIFORNIA GNATCATCHER: If surveys determine the California gnatcatcher is present on-site, impacts to 0.59 acre of Diegan coastal sage scrub associated with development of Phase II shall be mitigated through conservation of California gnatcatcher-occupied Diegan coastal sage scrub. Mitigation shall be at a 2:1 ratio by onsite preservation or by purchase of appropriate credits at an approved mitigation bank in San Diego County. Additionally, if coastal California gnatcatcher are present in the impact area, SDSU shall obtain an Incidental Take Permit from the U.S. Fish and Wildlife Service (USFWS) prior to the commencement of construction activities within suitable gnatcatcher habitat. If coastal California gnatcatcher is determined to be absent from the site, no mitigation for the species is required.

MM-BIO-8 HABITAT MITIGATION: If California gnatcatcher is determined to be present on site, impacts to 0.59 acre of Diegan coastal sage scrub associated with development of Phase II will be mitigated according to MM-BIO-7 if California gnatcatcher is determined to be present onsite. If California gnatcatcher is determined to be absent, impacts to Diegan coastal sage scrub associated with Phase II shall be mitigated by the conservation of non-occupied habitat at a 1:1 ratio. Conservation of habitat will be by onsite preservation or by purchase of appropriate credits at an approved mitigation bank in San Diego County.

The mitigation habitat shall include appropriate habitat for special status reptiles with potential to occur onsite. The mitigation habitat shall also support special-status plants, if found to occur on site, or be suitable for enhancement and planting of special-status plants. A plant mitigation and monitoring plan may be required to ensure the success of any enhancement or restoration.

Phase III

Impacts associated with Phase III are subject to mitigation measures MM-BIO-1 through MM-BIO-6, described above, as well as the following mitigation measures:

MM-BIO-9 COASTAL CALIFORNIA GNATCATCHER: If the California gnatcatcher is determined to be present on-site, impacts to 1.92 acres of Diegan coastal sage scrub

associated with development of Phase III will be mitigated through conservation of California gnatcatcher-occupied Diegan coastal sage scrub. Mitigation shall be at a 2:1 ratio by onsite preservation or by purchase of appropriate credits at an approved mitigation bank in San Diego County. Additionally, if coastal California gnatcatcher are present in the impact area, SDSU shall obtain an Incidental Take Permit from the U.S. Fish and Wildlife Service (USFWS) prior to the commencement of construction activities within suitable gnatcatcher habitat. If coastal California gnatcatcher is determined to be absent from the site, no mitigation for the species is required.

MM-BIO-10 HABITAT MITIGATION: If California gnatcatcher is determined to be present onsite, impacts to 1.92 acre of Diegan coastal sage scrub associated with Phase III shall be mitigated according to MM-BIO-9. If California gnatcatcher is determined to be absent, impacts to Diegan coastal sage scrub associated with Phase III shall be mitigated by the conservation of non-occupied habitat at a 1:1 ratio. Conservation of habitat shall be by onsite preservation or by purchase of appropriate credits at an approved mitigation bank in San Diego County.

The mitigation habitat shall include appropriate habitat for special status reptiles with potential to occur onsite. A plant mitigation and monitoring plan shall be prepared to include translocation of the impacted San Diego goldenstar to the mitigation site. The mitigation habitat shall also support additional special-status plants, if found to occur on site, or be suitable for enhancement and planting of special-status plants.

4.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the above mitigation measures would reduce potential impacts to biological resources to **less-than-significant levels.**

PHASE I

Nesting Birds

The significant direct impacts to nesting birds protected under the MBTA will be reduced to less than significant through implementation of mitigation measure **MM-BIO-1**, which requires nesting bird surveys when construction activities occur during the bird nesting season and avoidance buffers if active nests are found.

Short-Term Indirect Impacts (Plants)

The potential significant short-term indirect impacts to special-status plants and vegetation communities will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring and a monitoring report and fencing.

Long-Term Indirect Impacts (Plants)

The potential significant long-term indirect impacts to special-status plants and vegetation communities will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3** and **MM-BIO-4** , which require fencing around the buildings and restrictions on landscape planting.

Short-Term Indirect Impacts (Wildlife)

The potential significant short-term indirect impacts to special-status wildlife species will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring and a monitoring report and fencing.

Long-Term Indirect Impacts (Wildlife)

The potential significant long-term indirect impacts to special-status wildlife species will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3**, **MM-BIO-4** and **MM-BIO-5** which require fencing around the buildings, restrictions on landscape planting, and a lighting plan.

Short-Term Indirect Impacts (Non-Wetland Waters)

The potential significant short-term indirect impacts to non-wetland waters will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring, compliance with the stormwater pollution prevention plan, best management practices, and a monitoring report; and fencing.

Long-Term Indirect Impacts (Non-Wetland Waters)

The potential significant long-term indirect impacts to non-wetland waters will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3** and **MM-BIO-4**, which require fencing around the building and restrictions on landscape planting.

Short-Term Indirect Impacts (Wildlife Movement)

The potential significant short-term indirect impacts to the native habitat in the canyon that serves as a potential corridor for coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring and a monitoring report, and fencing.

Long-Term Indirect Impacts (Wildlife Movement)

The potential significant long-term indirect impacts to the native habitat in the canyon that serves as a potential corridor for coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3**, **MM-BIO-4,** and **MM-BIO-5**, which require fencing around the buildings, restrictions on landscape planting and a lighting plan.

PHASE II

Direct Impacts to Special-Status Plants

The significant direct impacts to special-status plants will be reduced to less than significant through implementation of mitigation measure **MM-BIO-7**, which requires habitat preservation through a mitigation bank. The conserved land shall also support special-status plants or be suitable for enhancement and planting of special-status plants. **MM-BIO-7** also requires a plant mitigation and monitoring plan if needed to ensure the success of any enhancement or restoration.

Direct Impacts to Coastal California Gnatcatcher

The significant direct impacts to coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measure **MM-BIO-7** and **MM-BIO-8**, which requires habitat preservation through a mitigation bank of suitable gnatcatcher habitat and obtaining take authorization from the USFWS.

Direct Impacts to Special-Status Reptiles

The significant direct impacts to habitat for special-status reptiles will be reduced to less than significant through implementation of mitigation measure **MM-BIO-8**, which requires habitat preservation through a mitigation bank of suitable coastal sage scrub habitat.

Nesting Birds

The significant direct impacts to nesting birds protected under the MBTA will be reduced to less than significant through implementation of mitigation measure **MM-BIO-1**, which requires nesting bird surveys when construction activities occur during the bird nesting season and avoidance buffers if active nests are found.

Short-Term Indirect Impacts (Plants)

The potential significant short-term indirect impacts to special-status plants and vegetation communities will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring and a monitoring report and fencing.

Long-Term Indirect Impacts (Plants)

The potential significant long-term indirect impacts to special-status plants and vegetation communities will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3** and **MM-BIO-4,** which require fencing around the buildings and restrictions on landscape planting.

Short-Term Indirect Impacts (Wildlife)

The potential significant short-term indirect impacts to special-status wildlife species will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring and a monitoring report and fencing.

Long-Term Indirect Impacts (Wildlife)

The potential significant long-term indirect impacts to special-status wildlife species will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3**, **MM-BIO-4,** and **MM-BIO-5**, which require fencing around the buildings, restrictions on landscape planting and a lighting plan.

Direct Impacts to Coastal Sage Scrub

The significant direct impacts to 0.59 acre of coastal sage scrub will be reduced to less than significant through implementation of mitigation measure **MM-BIO-7**, which requires habitat preservation through a mitigation bank of suitable coastal sage scrub habitat.

Short-Term Indirect Impacts (Non-Wetland Waters)

The potential significant short-term indirect impacts to non-wetland waters will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring, compliance with the stormwater pollution prevention plan, best management practices, and a monitoring report; and fencing.

Long-Term Indirect Impacts (Non-Wetland Waters)

The potential significant long-term indirect impacts to non-wetland waters will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3** and **MM-BIO-4**, which require fencing around the buildings and restrictions on landscape planting.

Short-Term Indirect Impacts (Wildlife Movement)

The potential significant short-term indirect impacts to the native habitat in the canyon that serves as a potential corridor for coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring and a monitoring report, and fencing.

Long-Term Indirect Impacts (Wildlife Movement)

The potential significant long-term indirect impacts to the native habitat in the canyon that serves as a potential corridor for coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3**, **MM-BIO-4,** and **MM-BIO-5**, which require fencing around the buildings, restrictions on landscape planting and a lighting plan.

PHASE III

Direct Impacts to Special-Status Plants

The significant direct impacts to special-status plants will be reduced to less than significant through implementation of mitigation measure **MM-BIO-10**, which requires habitat preservation through a mitigation bank and translocation of San Diego goldenstar. The conserved land shall also support special-status plants or be suitable for enhancement and planting of special-status plants. **MM-BIO-10** also requires a plant mitigation and monitoring plan if needed to ensure the success of any enhancement or restoration.

Direct Impacts to Coastal California Gnatcatcher

The significant direct impacts to coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measure **MM-BIO-9** and **MM-BIO-10**, which require habitat preservation through a mitigation bank of suitable gnatcatcher habitat and obtaining take authorization from the USFWS.

Direct Impacts to Special-Status Reptiles

The significant direct impacts to habitat for special-status reptiles will be reduced to less than significant through implementation of mitigation measure **MM-BIO-10**, which requires habitat preservation through a mitigation bank of suitable coastal sage scrub habitat.

Nesting Birds

The significant direct impacts to nesting birds protected under the MBTA will be reduced to less than significant through implementation of mitigation measure **MM-BIO-1**, which requires nesting bird surveys when construction activities occur during the bird nesting season and avoidance buffers if active nests are found.

Short-Term Indirect Impacts (Plants)

The potential significant short-term indirect impacts to special-status plants and vegetation communities will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring and a monitoring report and fencing.

Long-Term Indirect Impacts (Plants)

The potential significant long-term indirect impacts to special-status plants and vegetation communities will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3** and **MM-BIO-4**, which require fencing around the buildings and restrictions on landscape planting.

Short-Term Indirect Impacts (Wildlife)

The potential significant short-term indirect impacts to special-status wildlife species will be reduced to less than significant through implementation of mitigation measures **MM-BIO-2** and **MM-BIO-3**, which require biological monitoring and a monitoring report and fencing.

Long-Term Indirect Impacts (Wildlife)

The potential significant long-term indirect impacts to special-status wildlife species will be reduced to less than significant through implementation of mitigation measures MM-BIO-3, MM-BIO-4, and MM-BIO-5, which require fencing around the buildings, restrictions on landscape planting, and a lighting plan.

Direct Impacts to Coastal Sage Scrub

The significant direct impacts to 1.92 acres of coastal sage scrub will be reduced to less than significant through implementation of mitigation measure MM-BIO-10, which requires habitat preservation through a mitigation bank of suitable coastal sage scrub habitat.

Short-Term Indirect Impacts (Non-Wetland Waters)

The potential significant short-term indirect impacts to non-wetland waters will be reduced to less than significant through implementation of mitigation measures MM-BIO-2 and MM-BIO-3, which require biological monitoring, compliance with the stormwater pollution prevention plan, best management practices, and a monitoring report; and fencing.

Long-Term Indirect Impacts (Non-Wetland Waters)

The potential significant long-term indirect impacts to non-wetland waters will be reduced to less than significant through implementation of mitigation measures MM-BIO-3 and MM-BIO-4, which require fencing around the buildings and restrictions on landscape planting.

Direct Impacts (Wildlife Movement)

The significant direct impacts associated with Phase III to the native habitat in the canyon that serves as a potential corridor for coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measure MM-BIO-7, which requires habitat preservation through a mitigation bank of suitable coastal sage scrub habitat.

Short-Term Indirect Impacts (Wildlife Movement)

The potential significant short-term indirect impacts to the native habitat in the canyon that serves as a potential corridor for coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measures MM-BIO-2 and MM-BIO-3, which require biological monitoring and a monitoring report, and fencing.

Long-Term Indirect Impacts (Wildlife Movement)

The potential significant long-term indirect impacts to the native habitat in the canyon that serves as a potential corridor for coastal California gnatcatcher will be reduced to less than significant through implementation of mitigation measures **MM-BIO-3**, **MM-BIO-4,** and **MM-BIO-5**, which require fencing around the buildings, restrictions on landscape planting, and a lighting plan.

4.3.9 REFERENCES

ACOE (U.S. Army Corps of Engineers). 1987. *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1*, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

ACOE. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. September 2008. Accessed March 2014. http://www.usace.army.mil/CECW/Pages/reg_supp.aspx.

ACOE and EPA (U.S. Environmental Protection Agency). 2008. "Clean Water Act Jurisdiction" Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*. Washington, D.C.: EPA. December 2, 2008.

AOU (American Ornithologists' Union). 2017. "Check-List of North American Birds: List of the 2,127 Bird Species Known from the A.O.U. Check-List Area." Accessed February 2017. http://checklist.aou.org/.

Beier, P., and S. Loe. 1992. "A Checklist for Evaluating Impacts to Wildlife Movement Corridors." *Wildlife Society Bulletin* 20:434–440.

Bing (Bing Aerial Imagery). 2014. "San Diego, California" [aerial photograph]. Bing is a registered trademark of Microsoft and is used in association with its data suppliers. Redmond, Washington: Microsoft.

Bing (Bing Aerial Imagery). 2017. "San Diego, California" [aerial photograph]. Bing is a registered trademark of Microsoft and is used in association with its data suppliers. Redmond, Washington: Microsoft.

Bossard, C.C., J.M. Randall, and M.C. Hoshovsky. 2000. *Invasive Plants of California's Wildlands*. Berkeley, California: University of California Press.

California Fish and Game Code, Sections 2050–2098. California Endangered Species Act.

California Fish and Game Code, Sections 3500–3516. Division 4: Birds and Mammals, Part 2: Birds, Chapter 1: General Provisions.

California Fish and Game Code, Section 4700. Division 4: Birds and Mammals; Part 3: Mammals; Chapter 8: Fully Protected Mammals.

CDFG (California Department of Fish and Game). 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, California. September 2010.

CDFW (California Department of Fish and Wildlife). 2014. California Natural Diversity Database (CNDDB). RareFind, Version 4.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed April 2014.

CDFW (California Department of Fish and Wildlife). 2017a. California Natural Diversity Database (CNDDB). RareFind, Version 5.1.1 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed January 2017.

CDFW. 2017b. Special Vascular Plants, Bryophytes, and Lichens List. January 2017. Natural Diversity Database. Quarterly publication. 126 pp.

CDFW. 2017c. Special Animals List (899 taxa). January 2017. Natural Diversity Database. Periodic publication. 51 pp.

City of San Diego. 1997. *City of San Diego Final MSCP Subarea Plan*. Prepared by the City of San Diego Community and Economic Development Department. March 1997.

City of San Diego. 2012. *San Diego Municipal Code, Land Development Code—Biology Guidelines*. Amended April 23, 2012 by Resolution No. R-307376. https://www.sandiego.gov/sites/default/files/ldc_biology_guidelines_vphcp_wildlife-city_draft_july_2016.pdf.

CNPS (California Native Plant Society). 2014. *Inventory of Rare and Endangered Plants* (online edition, v8-01a). Sacramento, California: California Native Plant Society. Accessed April 2014.

CNPS. 2017. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, California. Accessed February 2017. http://www.rareplants.cnps.org/.

County of San Diego. 1998. Final Multiple Species Conservation Program, MSCP Plan. August 1998.

Crother, B.I. 2012. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding. 7th ed. Herpetological Circular No. 39. Ed. J.J. Moriarty. Shoreview, Minnesota: Society for the Study of Amphibians and Reptiles.

Goldberg, S.R. 1995. "Reproduction in the Western Patchnose Snake, *Salvadora hexalepis*, and the Mountain Patchnose Snake, *Salvadora grahamiae* (Colubridae), from Arizona." *Southwestern Naturalist* 40:119–120.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* Nongame-Heritage Program, California Department of Fish and Game. October 1986.

Jennings, M.R., and M.P. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California*. Final report. Commissioned by the California Department of Fish and Game, Inland Fisheries Division Endangered Species Project. November 1, 1994. Accessed February 9, 2010. http://www.dfg.ca.gov/wildlife/nongame/publications/docs/herp_ssc.pdf.

Jepson Flora Project. 2017. Jepson eFlora. Berkeley, California: University of California. Accessed February 2017. http://ucjeps.berkeley.edu/cgi-bin/get_JM_name_data.pl

Keeley, J.E. 1987. "Role of Fire in Seed Germination of Woody Taxa in California Chaparral." *Ecology* 68: 434–442.

Lemm, Jeffrey M. 2006. *Field Guide to Amphibians and Reptiles of the San Diego Region*. Berkley, California: University of California Press.

Lovich, J.E., and J.R. Ennen. 2011. "Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States." *BioScience* 61(12):982–992.

Malanson, G.P., and J.F. O'Leary. 1982. "Post-Fire Regeneration Strategies in California Coastal Sage Shrubs." *Oecologia* 53:355–358.

NABA (North American Butterfly Association). 2001. "Checklist of North American Butterflies Occurring North of Mexico." Adapted from North American Butterfly Association (NABA) Checklist & English Names of North American Butterflies, eds. B. Cassie, J. Glassberg, A. Swengel, and G. Tudor. 2nd ed. Morristown, New Jersey: NABA. Accessed October 14, 2016. http://www.naba.org/pubs/enames2.html

NatureServe. 2017. "Conservation Status Assessment, Identifying Threatened Species and Ecosystems." Accessed February 24, 2017. http://www.natureserve.org/conservation-tools/conservation-status-assessment

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County.* March 2008. Accessed December 2016. http://www.sdcanyonlands.org/pdfs/veg_comm_sdcounty_2008_doc.pdf.

O'Leary, J.F., D. Murphy, and P. Brussard. 1992. *The Coastal* Sage *Scrub Community Conservation Planning Region: An NCCP Special Report.* Natural Community Conservation Planning/Coastal Sage Scrub Special Report 2.

SanGIS (San Diego Geographic Information Source). 2016. San Diego Geographic Information Source. Accessed December 2016. http://www.sangis.org/

San Diego, City of. 1997. Multiple Species Conservation Program City of San Diego MSCP Subarea Plan. Accessed April 4, 2017. https://www.sandiego.gov/sites/default/files/legacy/planning/programs/mscp.

SDNHM (San Diego Natural History Museum). 2002. "Butterflies of San Diego County. Revised September 2002." Accessed October 14, 2016. http://www.sdnhm.org/archive/research/entomology/sdbutterflies.html.

Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians*. 3rd edition. New York, New York: Houghton Mifflin Company.

USDA (U.S. Department of Agriculture). 2016. *Web Soil Survey* [web application]. USDA, Natural Resources Conservation Service. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

USDA. 2017. "California." State PLANTS Checklist. Accessed February 2017. http://plants.usda.gov/dl_state.html.

USFWS (U.S. Fish and Wildlife Service). 1997. *Coastal California Gnatcatcher* (Polioptila californica californica) *Presence/Absence Survey Protocol*. July 28, 1997.

USFWS. 2008. *Birds of Conservation Concern 2008*. December 2008.

USFWS. 2014. "Critical Habitat and Occurrence Data" [map]. Accessed April 2014. http://www.fws.gov/data.

USFWS. 2017. "Critical Habitat and Occurrence Data" [map]. Accessed February 2017. http://www.fws.gov/data.

USGS (U.S. Geological Survey). 2016. National Hydrography Dataset (NHD). NHD flowline map. Accessed December 2016. http://nhd.usgs.gov/data.html

Western Regional Climate Center. 2017. Historical Climate Information: San Diego Lindberg Field. Accessed February 2017: http://www.wrcc.dri.edu

Wilcove, D.S., C.H. McLellan, and A.P. Dobson. 1986. "Habitat Fragmentation in the Temperate Zone." In *Conservation Biology: The Science of Scarcity and Diversity*, edited by M.E. Soulé, 237–256. Sunderland, Massachusetts: Sinauer Associates Inc.

Wilcox, B., and D. Murphy. 1985. "Conservation Strategy: The Effects of Fragmentation on Extinction." *The American Naturalist* 125:879–887.

Wilson, D.E., and D.M. Reeder, eds. 2005. Mammal Species of the World: A Taxonomic and Geographic Reference. 3rd ed. Baltimore, Maryland: Johns Hopkins University Press.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. *California's Wildlife: Volume II. Birds.* Sacramento, California: California Department of Fish and Game.

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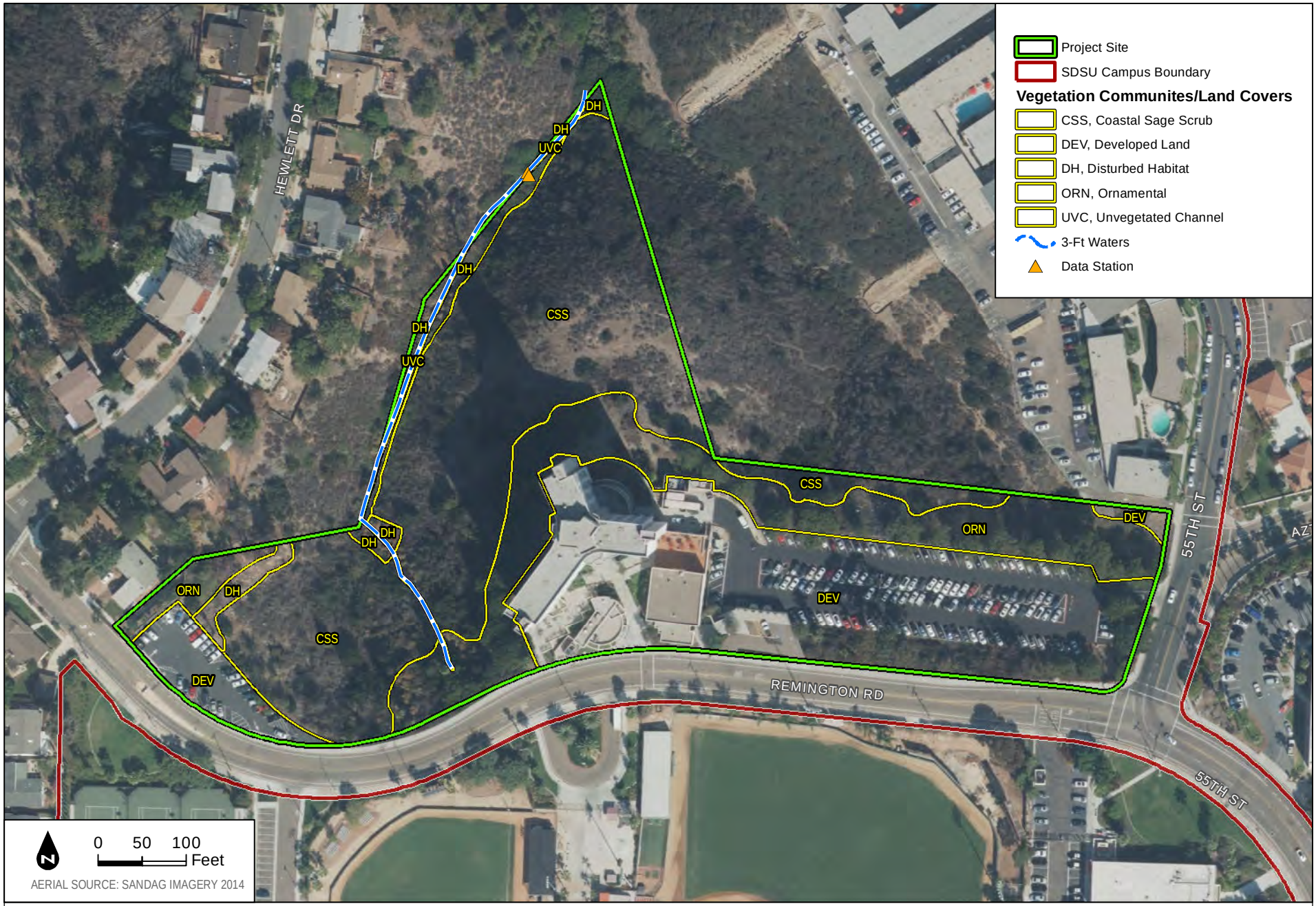

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Figure **4.3-1**
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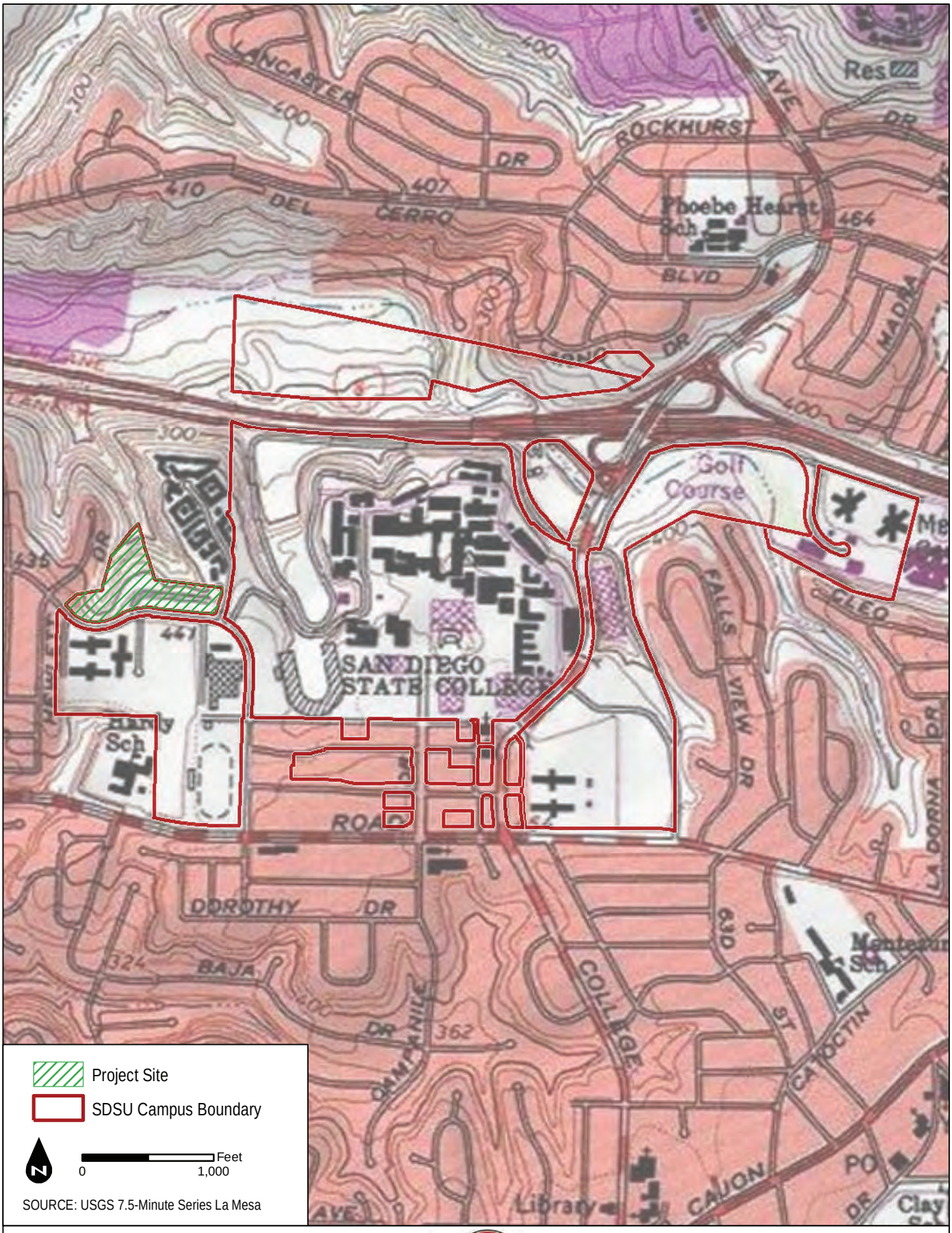

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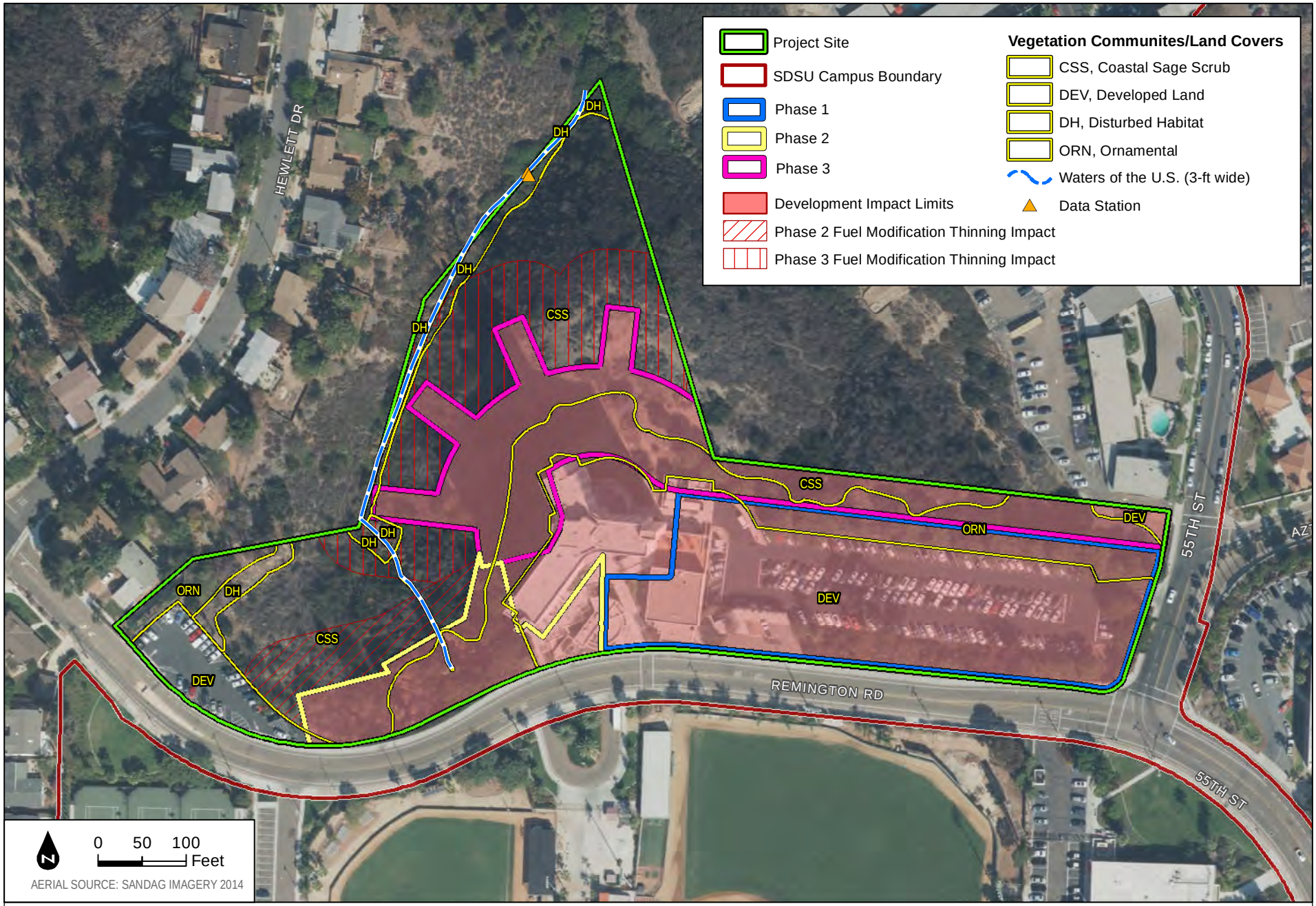

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Figure **4.3-3**

Impacts to Biological Resources

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