Appendix C

Biological Resources Report

HELIX Environmental Planning

Kearny Mesa Community Plan Update

Biological Resources Report

November 2019

Prepared for:

City of San Diego
Planning Department
9485 Aero Drive
San Diego, CA 92123

Prepared by:

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7578 El Cajon Boulevard
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1.0 INTRODUCTION

This Biological Resources Report (BRR) documents the existing biological resources located within the Kearny Mesa Community Plan Update (KMCPU) area. For clarity, the proposed project area discussed throughout this BRR consists of all lands within the boundaries of the Kearny Mesa Community Planning Area, consisting of approximately 4,423 acres.

The KMCPU is a comprehensive update to the current community plan, which was adopted in 1992 and recently amended in January 2018 (City of San Diego [City] 2018a). The KMCPU area is located in the central portion of the City of San Diego (City); it is located south of State Route (SR-) 52, east of Interstate (I-) 805, west of I-15, and north of I-8 (Figure 1). The KMCPU area is bounded by Marine Corps Air Station (MCAS) Miramar to the north, the community of Tierrasanta to the east, the community of Serra Mesa to the south, the community of Linda Vista to the southwest, and the community of Clairemont Mesa to the west. The KMCPU area is located on U.S. Geological Survey (USGS), 7.5-minute series La Jolla and La Mesa Quadrangle Maps (Figure 2).

Within the boundaries of the KMCPU area are three locally approved planning documents: the Stonecrest Specific Plan, the New Century Center Master Plan, and the Montgomery-Gibbs Executive Airport Master Plan. The Stonecrest Specific Plan was adopted by City Council in February 1988 with amendments approved in 1996 (City 1996). The specific plan area is located in the southeast corner of the KMCPU area and has been entirely constructed. The New Century Center Master Plan was originally approved in September 1997 and revised in August 2002 and was subsequently approved by City Council in November 2002 (City 2002). The master plan area is located in the central portion of the KMCPU area, north of the Montgomery-Gibbs Executive Airport (airport property), and has been nearly entirely constructed. The Montgomery-Gibbs Airport Master Plan covers airport land use for the airport property within the KMCPU area. The airport property includes approximately 550 acres located in the south-central portion of the KMCPU area. The City's Airports Division is currently in the process of updating the master plan to guide future airport development and has issued Working Paper 4 – Environmental Overview for the for the Montgomery-Gibbs Executive Airport Master Plan Update in October 2017 (Atkins 2017). The biological resources elements of the Montgomery-Gibbs Executive Airport Master Plan Update are incorporated into this BRR.

2.0 METHODS

2.1 GENERAL BIOLOGICAL DATABASE AND LITERATURE REVIEW

HELIX Environmental Planning, Inc. (HELIX) conducted reviews of biological resource databases and of pertinent literature to inform discussions and conclusions of this report. Sources utilized for the review included, but were not limited to the following:

- California Department of Fish and Wildlife (CDFW) Natural Diversity Data Base (CNDDB)
- California Native Plant Society (CNPS) Online Rare Plan Inventory
- U.S. Fish and Wildlife Service (USFWS) species and critical habitat databases
- Multiple Species Conservation Program (MSCP) (County of San Diego Final MSCP Program; and City of San Diego MSCP Subarea Plan)

- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database
- USFWS National Wetlands Inventory
- Rare Plants of San Diego County (Reiser 2001)
- San Diego County Bird Atlas (Unitt 2004)
- San Diego County Mammal Atlas (Tremor, Stokes, Spencer, et al. 2017)
- San Diego Geographic Information Source (SanGIS) Vegetation Information in the San Diego Region (2012, 2015; data compiled 1992)
- New Century Center Environmental Impact Report (1997 and 2002)
- Stonecrest Specific Plan (1996)
- City of San Diego Vernal Pool Habitat Conservation Plan (VPHCP)
- San Diego Association of Governments San Diego Management and Monitoring Program

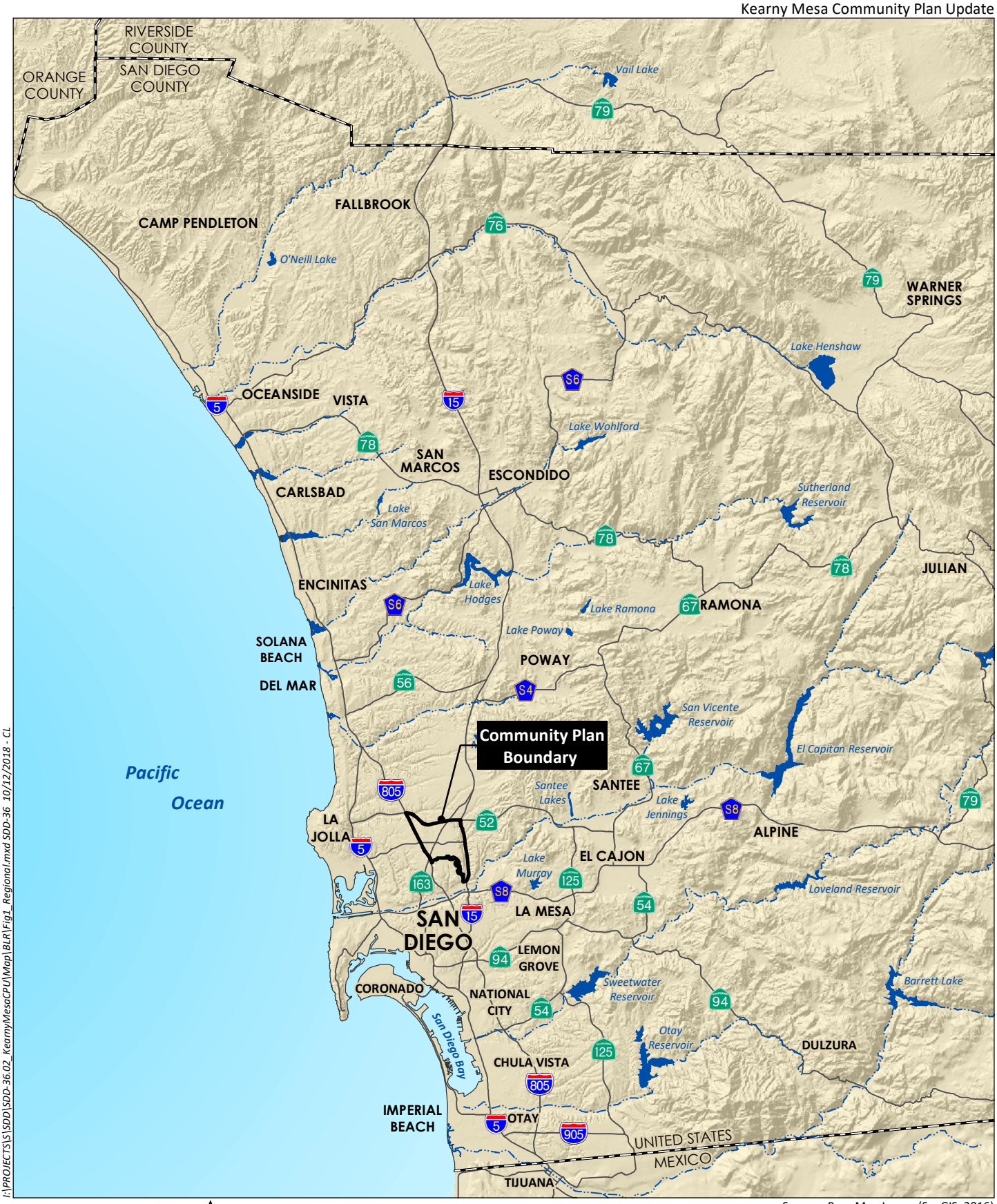
2.2 SOURCES REVIEWED TO DETERMINE HABITATS, FLORA, AND FAUNA

In addition to the use of the above generalized databases and literature sources, several Kearny Mesa or City-wide projects and their California Environmental Quality Act (CEQA) review information were utilized to further verify and refine information about the community plan area habitats, flora, fauna, and their relative sensitivity. Contributing projects include: the Montgomery-Gibbs Executive Airport Master Plan Update (Atkins 2017), the City's North City Pure Water Project Final Environmental Impact Report (Pure Water Final EIR) (City 2018b), the City's Draft Municipal Waterways Maintenance Plan (City 2018c), the City's Transportation and Storm Water Department Kearny Mesa East Mitigation Site Biological Letter Report (HELIX 2017), the City's VPHCP, and the Stonecrest Specific Plan (City 1996) and New Century Master Plan (City 1997) documents.

As this BRR was prepared to support a programmatic community plan rather than a specific project within the community plan, comprehensive observed species lists were not prepared. Future projects located within the KMCPU area with biological resource potential and area within or adjacent to the Multi-Habitat Planning Area (MHPA) would be required to undergo standard City Development Services Department environmental review. Such review may entail detailed analysis of sensitive biological resources as applicable.

2.2.1 Vegetation Communities

The vegetation community mapping for this report is primarily representative of the San Diego Geographic Information Source (SanGIS 2012, 2015) digital file for the MSCP. Although SanGIS lists this data as 2012/2015, the City's MHPA vegetation layer has not been updated since the 1992 MHPA vegetation mapping occurred. Therefore, where more current or detailed vegetation mapping exists from sources listed Section 2.2 above, the data was reviewed and incorporated into the vegetation discussion to provide further detail and updated information on Kearny Mesa biology.



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0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

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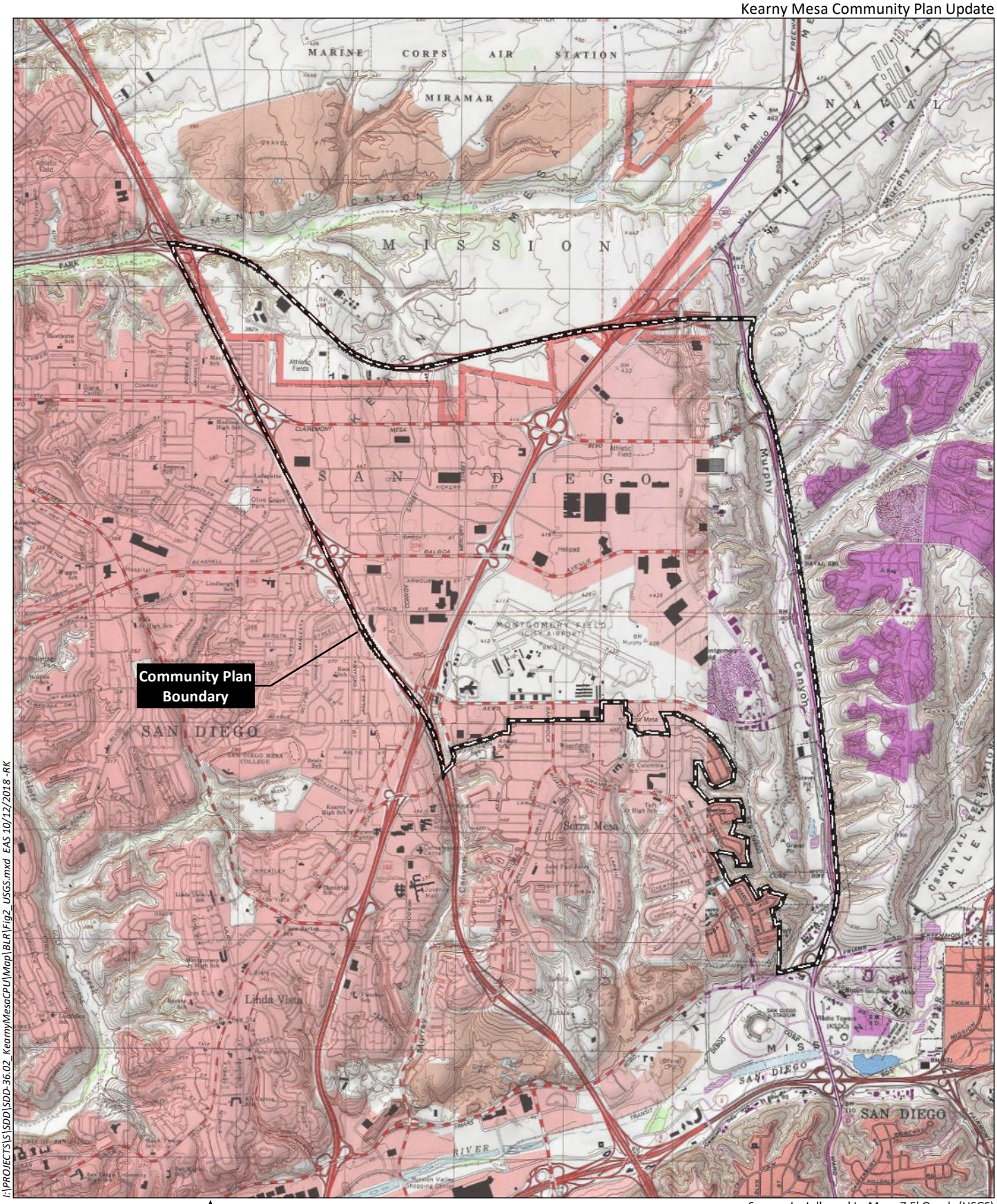
Regional Location

Figure 1



0 4,000 Feet

Source: La Jolla and La Mesa 7.5' Quads (USGS)

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USGS Topography

Figure 2

Vegetation community descriptions in this report follow Oberbauer et al. (2008) with habitat sensitivity tier categories derived from wetland and upland mitigation ratio tables in the City's Biology Guidelines (2012). Field surveys were not conducted as part of this BRR preparation; however, as noted above, relevant surveys were utilized to inform this report.

2.2.2 Sensitive Plants

Locations of sensitive plant species within the KMCPU area are primarily from the CNDDB (CDFW 2018a-d) with additional information gleaned from documents listed in Section 2.2, above, and 1992 MHPA vegetation maps, which include MSCP species codes with known spatial locations. The sensitivity status of plants are based on federal and state endangered, threatened, and sensitive status lists, as well as local sensitivity designations such as the MSCP covered species and CNPS (California Native Plant Society [CNPS] 2018) rare species.

2.2.3 Sensitive Wildlife

The locations of sensitive wildlife species are derived from the same sources as sensitive plants, as listed in Section 2.2, above. Furthermore, sensitive wildlife data from USFWS species occurrence database were incorporated (USFWS 2018a-b). The sensitivity status for animals are based on federal and state endangered, threatened, and sensitive status lists, as well as local sensitivity designated by the MSCP covered species lists (i.e., the CDFW Special Animals List (CDFW 2018e) and animals mentioned in the City Biology Guidelines (2012).

3.0 EXISTING CONDITIONS

3.1 PLAN AREA DESCRIPTION

3.1.1 Topography

The KMCPU area has varying elevations from approximately 70 feet above mean sea level (AMSL) in the southeast portion of the KMCPU area at the Mission Valley Terminal, a fuel farm owned by Kinder-Morgan, and up to approximately 430 feet AMSL in the eastern portions along Ruffin Road. The majority of the KMCPU area is currently developed and relatively level (i.e., mesa top, less than 10 percent slopes) at a mean elevation of approximately 410 feet AMSL. Overall, the KMCPU area slopes to the south and west. Natural undeveloped hillsides associated with Murphy Canyon are present in the outer portions of the KMCPU area and are positioned between existing development; specifically, in the southeast near the Mission Valley Terminal, at the east end of the airport property (landing approach zone), and in the northeastern corner of the KMCPU area near the junction of State SR-52 and I-15; San Clemente Canyon is present in the northwest portion of the KMCPU area near the junction of SR-52 and I-805. Current aerial imagery of the KMCPU area is presented on Figure 3.

The KMCPU area is located within portions of the Los Peñasquitos and San Diego River Watersheds, which drain northwest and southwest, respectively, towards the Pacific Ocean. These watersheds capture approximately 94 and 435 square miles, respectively. Specifically, the KMCPU area lies within the Mission San Diego (907.11), Miramar (906.40), and Tecolote (906.50) Hydrologic Units of the San Diego Region Basin Plan (Regional Water Quality Control Board 2016) (Figure 4).

3.1.2 Land Use

The KMCPU area includes a mixture of land uses, including but not limited to: industrial and commercial complexes, business parks, institutional facilities, residential dwellings of various densities, parks and open space, preserve areas, military facilities, and various transportation structures (e.g., arterial roadways and an airport).

3.1.3 Soils

The USDA NRCS (U.S. Department of Agriculture [USDA] 2015) shows 15 soil types mapped within the KMCPU area, 11 of which are in the undeveloped portions of the KMCPU area, including: Olivenhain cobbly loam (2 to 9, 9 to 30, and 30-50 percent slopes), Gaviota fine sandy loam (30 to 50 percent slopes), Chesterton fine sandy loam (2 to 5, and 5 to 9 percent slopes), Redding gravelly loam (2 to 9 percent slopes), Redding cobbly loam (i.e., 9 to 30 and dissected 15 to 30 percent slopes) percent slopes), Riverwash, and terrace escarpments.

Soil types mapped in the developed portions of the KMCPU area include those listed above and the following four: Chesterton urban land complex (2 to 9 percent slopes), Altamont clay (5 to 9 percent slopes), made land, and gravel pits (USDA 2015).

Redding gravelly loam spans throughout the majority of the KMCPU area. There is one relatively small area of clay soils (i.e., Altamont clay, 5 to 9 percent slopes), which occurs in the southeastern portion of the KMCPU area near the intersection of Aero Drive and Ruffin Road. The two soil types above are associated with vernal pool complexes in the KMCPU area.

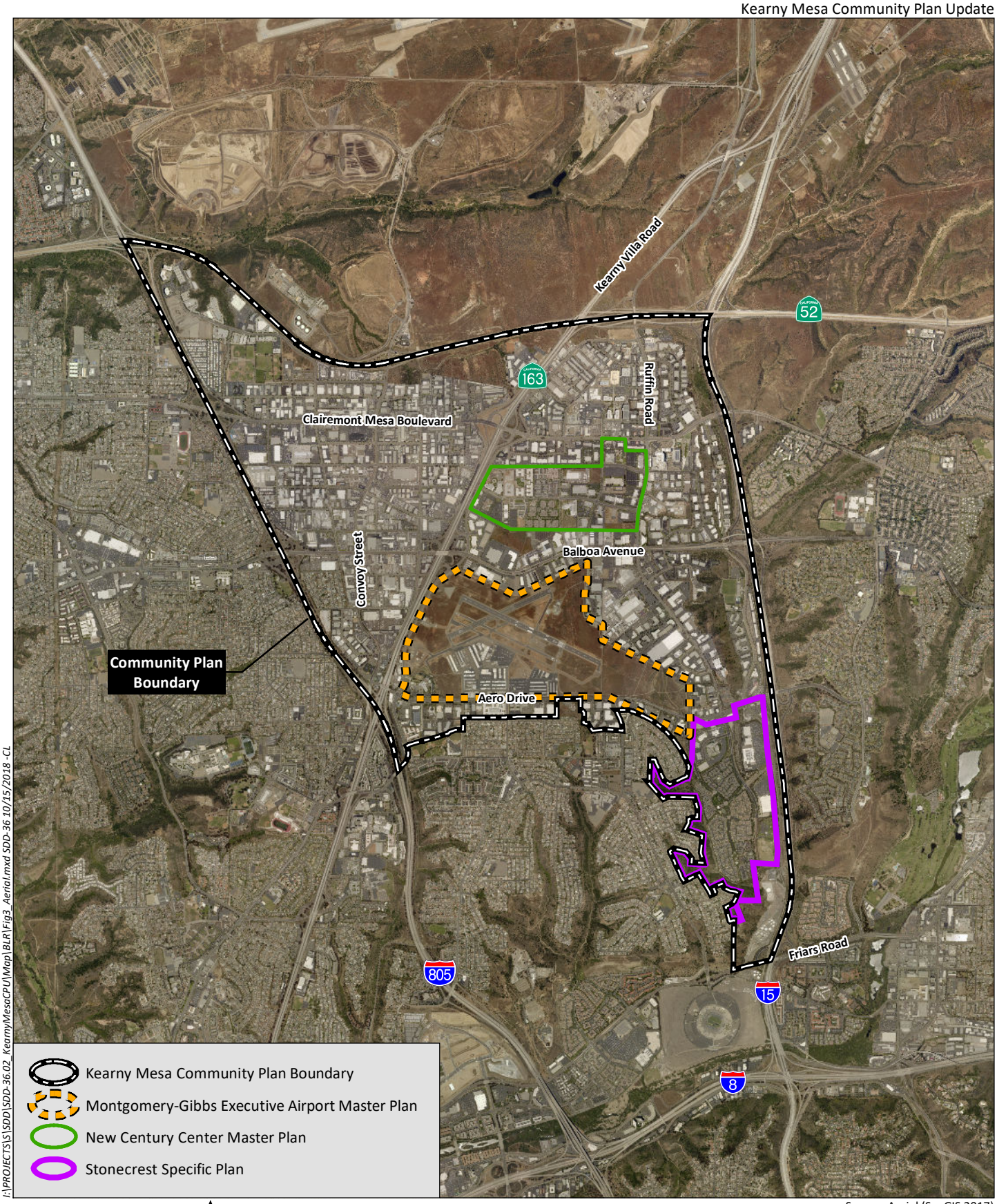
3.2 VEGETATION COMMUNITIES/LANDCOVER TYPES

This BRR identifies 17 generalized vegetation communities/land cover types within the KMCPU area, which correspond to Oberbauer (2008) and the City's Biology Guidelines (2012), as listed below:

The approximate acreages of these vegetation communities and land cover types are presented in Table 1 and their spatial distributions within the KMCPU area are presented on Figure 5.

Table 1
VEGETATION COMMUNITIES AND LAND COVER TYPES
IN THE KEARNY MESA COMMUNITY PLAN UPDATE AREA

Vegetation Community or Land Cover Type	Acreage*	Ratio (Minimum) or Tier
Wetland**		
Disturbed Wetland (Non-Native Riparian)	5.0	2:1
Southern Riparian Forest	0.2	3:1
Southern Riparian Scrub	15.4	2:1
Southern Riparian Woodland	0.7	3:1
Southern Sycamore-Alder Riparian Woodland	4.2	3:1
Southern Willow Scrub (including disturbed form)	1.1	2:1
Vernal Pool	9.5	2:1 to 4:1
Subtotal Wetland Communities	**36.1**	



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Source: Aerial (SanGIS 2017)

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Aerial Photograph

Figure 3

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Source: Aerial (SanGIS, 2017); USFWS (NWI 10/2017); Hydro Basins/Units (SanGIS 2017)

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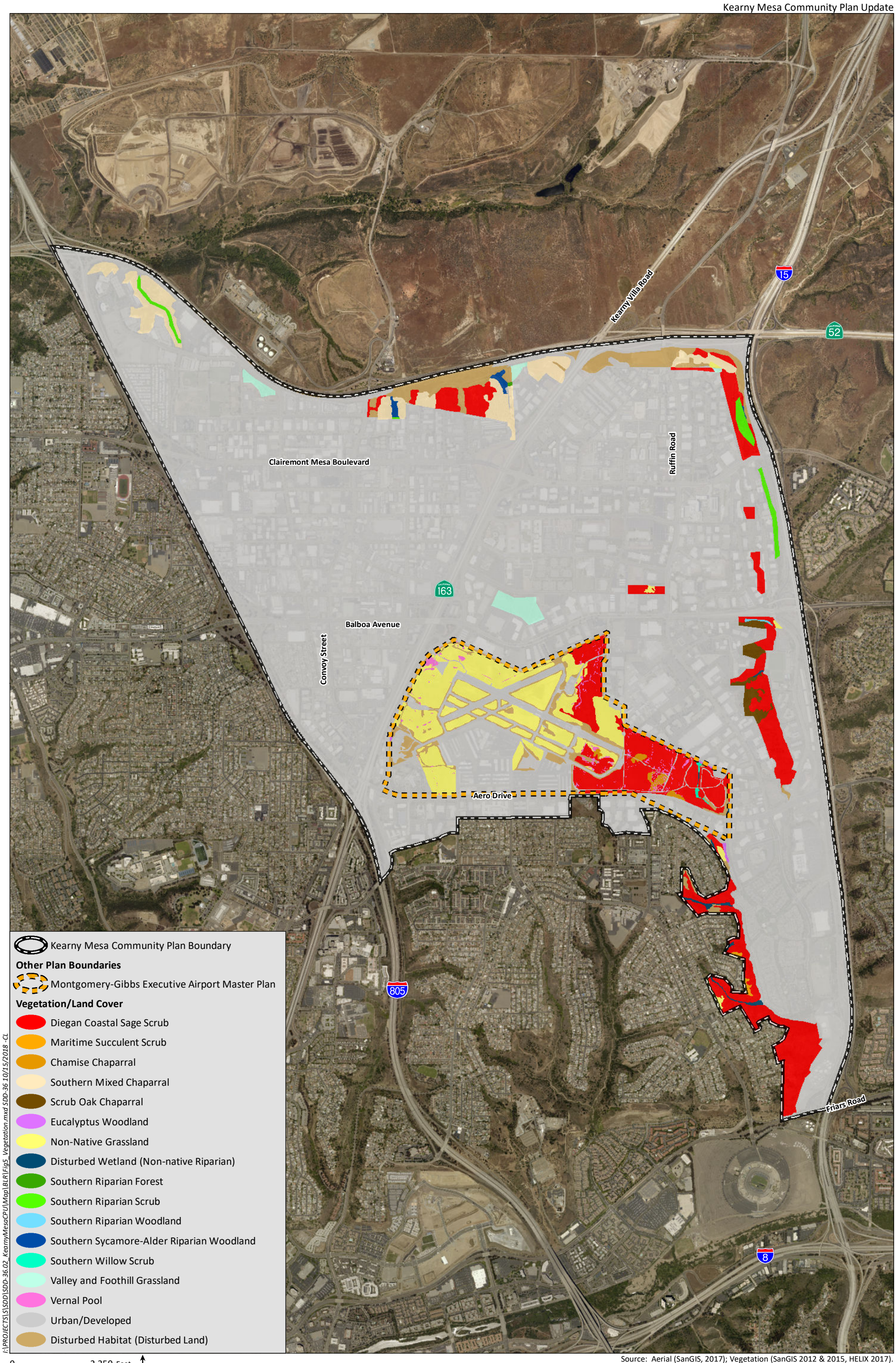
Hydrology

Figure 4



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Source: Aerial (SanGIS, 2017); Vegetation (SanGIS 2012 & 2015, HELIX 2017).

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Vegetation Communities and Land Cover Types

Figure 5

Table 1 (cont.)
VEGETATION COMMUNITIES AND LAND COVER TYPES
IN THE KEARNY MESA COMMUNITY PLAN UPDATE (KMCPU) AREA

Vegetation Community or Land Cover Type	Acreage*	Ratio (Minimum) or Tier
Sensitive Upland		
Chamise Chaparral	5.4	IIIA
Diegan Coastal Sage Scrub (including baccharis-dominated, coastal, and disturbed forms)	284.4	II
Maritime Succulent Scrub	2.0	I
Non-Native Grassland (including broadleaf-dominated)	165.3	IIIB
Scrub Oak Chaparral	14.0	I
Southern Mixed Chaparral***	72.0	IIIA
Valley and Foothill Grassland	20.8	I
Subtotal Sensitive Upland Communities	**563.9**	
Other Uplands^		
Developed	3,698.8	NA
Disturbed Habitat (Disturbed Land)	122.6	IV ***
Eucalyptus Woodland	1.2	IV
Subtotal Other Uplands	**3,822.6**	
TOTAL	**4,422.6**	

* Rounded to the nearest 0.1 acre.

** Wetland here does not imply/define U.S. Army Corps of Engineers "wetlands or waters of the U.S." All wetlands listed considered sensitive habitats per City Biology Guidelines (21012). City wetlands typically include wet areas with native wetland species and include areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities; and/or areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands.

*** Mitigable subtypes (e.g., Southern Maritime Chaparral) will be further distinguished with applicable site-specific surveys.

Tiers and habitats are per City Biology Guidelines 2012—minimum ratio given only because ratios are dependent on whether the impacts and mitigation site are inside or outside of the MHPA.

^ May be sensitive if they support sensitive species.

3.2.1 Wetland Communities

Wetlands vegetation, including riparian areas, are low-lying lands where association (i.e., saturation or inundation) with water is the primary constituent in soil development and the types of plant and animal species living in the soil and on its surface. Wetland vegetation communities vary widely due to regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors (Environmental Protection Agency 2013). The individual vegetation types mapped within the KMCPU area that are typically recognized as wetlands communities are described below, including their locations within the KMCPU area.

3.2.1.1 Disturbed Wetland (Non-Native Riparian)

Oberbauer describes Disturbed Wetland (vegetation type 12200) as areas permanently or periodically inundated by water, which have been significantly modified by human activity. Site factors include portions of wetlands with obvious artificial structures such as concrete lining, barricades, rip-rap, piers,

or gates. Often these areas are unvegetated but may contain scattered native or non-native vegetation. Examples include lined channels, Arizona crossings, detention basins, culverts, and ditches. Characteristic species include giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), eucalyptus (*Eucalyptus* spp.), palm trees (*Phoenix* and *Washingtonia* spp.), pampas grass (*Cortaderia* spp.), artichoke thistle (*Cynodon dactylon*), and may also contain native wetland species including willow (*Salix* spp.) and cattail (*Typha* spp.).

Within the KMCPU area disturbed wetland is mapped in the southeast boundary of the airport property. Disturbed wetlands are also likely to be found in pockets within more pristine habitat associated with creeks (Murphy Canyon and San Clemente) and associated with ephemeral streams feeding into to the creeks in the northeast and eastern portions of the community.

3.2.1.2 Southern Riparian Forest

Southern riparian forest is a general riparian community composed of winter-deciduous trees often found along streams and rivers. Willow (*Salix* sp.), cottonwood (*Populus* sp.), and western sycamore (*Platanus racemosa*) are typical species found in this community with no one species substantially dominating. Associated understory species may include mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica* ssp. *holosericea*), and wild grape (*Vitis girdiana*; Beauchamp 1986).

Southern riparian forest is mapped in northern central portion of the KMCPU area, immediately south of SR-52.

3.2.1.3 Southern Riparian Scrub

Southern riparian scrub is a generic term for several shrub dominated communities that occur along drainages and/or riparian corridors including southern willow scrub (See Section 3.2.1.7), mule fat scrub, and tamarisk scrub. This community lacks taller riparian tree species.

Within the KMCPU area southern riparian scrub occurs in the northwest in San Clemente Canyon and in the northeast within portions of Murphy Canyon.

3.2.1.4 Southern Riparian Woodland

Southern riparian woodland is very similar to southern riparian forest (3.2.1.3 above); however, the differences between woodlands and forests are physiognomic rather than compositional. Woodlands have less canopy cover than forests. In woodlands, there may be large canopy gaps within the upper tree stratum. In forests, the canopies of individual tree species do overlap so that a canopy cover exceeding 100 percent may occur in the upper tree stratum.

Southern riparian woodland is mapped in one area within the KMCPU area: near the east border, immediately south of Aero Drive.

3.2.1.5 Southern Sycamore-Alder Riparian Woodland

Southern sycamore-alder riparian woodland is a tall, open, broad-leafed, winter-deciduous streamside woodland dominated by western sycamore and white alder (*Alnus rhombifolia*) (Oberbauer et al. 2008). These stands seldom form closed canopy forests and even may appear as trees scattered in a shrubby thicket of sclerophyllous and deciduous species. Additional plant species include California blackberry

(*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), and blue elderberry (*Sambucus mexicana*). This vegetation community is typically found in very rocky streambeds subject to seasonally high intensity flooding.

Within the KMCPU area southern sycamore-alder riparian woodland is located in the northern central portion of the KMCPU area, immediately south of SR-52. Additionally, a small stand is mapped in the northern portion of Murphy Canyon.

3.2.1.6 Southern Willow Scrub

Southern willow scrub consists of dense, broad-leaved, winter-deciduous stands of trees dominated by shrubby willows in association with mule fat, and with scattered emergent cottonwood (*Populus fremontii*) and western sycamores. This vegetation community occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest (Holland 1986). In the absence of periodic flooding, this early seral type would be succeeded by southern cottonwood or western sycamore riparian forest.

Areas of southern willow scrub mapped as disturbed likely contain many of the same shrub species as the undisturbed community but vegetation cover is sparser and has a higher proportion of non-native, annual plant species.

Within the KMCPU area southern willow scrub (including the disturbed form) is mapped in the eastern portion boundary of the airport property.

3.2.1.7 Vernal Pools

Vernal pools are a highly specialized plant habitat that support a unique flora. Vernal pools are associated with two important physical conditions: a subsurface hardpan or claypan that inhibits the downward percolation of water and a topography characterized by a series of low hummocks called mima mounds and low depressions (the vernal pools) which prevents above ground water runoff. As the result of these two physical conditions, water collects in these depressions during the rainy season. As the rainy season ends and the dry season begins, the water that has collected in these vernal pools is gradually evaporated. A temporal succession of plant species will occur at the receding pool margins, depending upon the physical and chemical microenvironmental characteristics of the pool. Vernal pools in a wet year will have a high proportion of native species that are endemic to this habitat. During these years exotic, ruderal species, characteristic of the non-native grasslands that occur on the surrounding mima mounds may be suppressed as they cannot compete with wet adapted species like they can in a dry year.

Vernal pools (i.e., San Diego Mesa Hardpan Vernal Pools) are known to occur in multiple areas within the KMCPU area, with most pools mapped within the airport property. Additionally, vernal pools are known to occur in the north, immediately south of SR-52, south of Tech Way, and west of Ruffin Road.

3.2.2 Sensitive Upland Communities

Upland vegetation communities are found in dry landforms and do not occur in wetland situations (e.g., inundated or containing saturated soils). In the KMCPU area, sensitive upland vegetation communities consist of scrub, chaparral, and grasslands. These communities are mostly located along

the perimeter of the KMCPU area within undeveloped lots and along the hillsides of Murphy Canyon. The majority of grasslands within the KMCPU area are located within the airport property. The individual upland vegetation types mapped within the KMCPU area are described below.

3.2.2.1 Chamise Chaparral

Chamise chaparral is an one- to three-meters tall vegetation community overwhelmingly dominated by chamise (*Adenostoma fasciculatum*) with little to no herbaceous understory (Oberbauer et al. 2008). Associated species of this community may include Ceanothus (*Ceanothus* spp.), Manzanita (*Arctostaphylos* spp.), laurel sumac (*Malosma laurina*), scrub oak (*Quercus dumosa*), deerweed (*Acmispon glaber*), and sages (*Salvia* spp.), although they contribute little to cover. This vegetation is adapted to repeated fires by stump sprouting and mature stands are densely interwoven with very little herbaceous understory or litter.

In the KMCPU area, chamise chaparral is mapped on lands within the airport property and in the east within the undeveloped hillsides near Murphy Canyon. Depending on present species, this generalized habitat may also be considered southern mixed or maritime chaparral at the time site specific surveys are performed.

3.2.2.2 Diegan Coastal Sage Scrub

Diegan coastal sage scrub is a low, soft-woody, subshrub that may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), laurel sumac, lemonadeberry (*Rhus integrifolia*), and black sage (*Salvia mellifera*).

The coastal form of Diegan coastal sage scrub is nearly identical to Diegan coastal sage scrub, except that it is known to occur at lower elevations below 1000 feet AMSL. According to Oberbauer et al., baccharis scrub is a subtype of coastal sage scrub, but chiefly supports baccharis species such as broom baccharis (*Baccharis sarothroides*) and coyote bush (*Baccharis pilularis*) (2008). Areas mapped as disturbed likely contain many of the same shrub species as the undisturbed community, but vegetation cover is sparser and has a higher proportion of non-native, annual plant species.

Within the KMCPU area, Diegan coastal sage scrub (including baccharis-dominated, coastal, and disturbed forms) is the most abundant vegetation community. It is found in airport property, along the undeveloped hillsides near and within Murphy Canyon, and in the north within undeveloped lands south of SR-52.

3.2.2.3 Southern Mixed or Southern Maritime Chaparral

Southern mixed chaparral is composed of broad-leaved sclerophyllous shrubs that can reach 6 to 10 feet in height and form dense often nearly impenetrable stands with poorly developed understories. In this mixed chaparral the shrubs are generally tall and deep rooted, with a well-developed soil litter layer. This vegetation community occurs on dry, rocky, often steep north-facing slopes with lower soil temperatures (Oberbauer et al. 2008). As conditions become more mesic, broad-leaved sclerophyllous shrubs that resprout from underground root crowns become dominant. Depending upon relative proximity to the coast, southern mixed chaparral is dominated by chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), Ramona lilac (*Ceanothus tomentosus*), white-stem wild-lilac (*Ceanothus leucodermis*), and big-berry manzanita (*Arctostaphylos glauca*). This vegetation community

provides important habitat for wide-ranging, larger wildlife species such as mule deer (*Odocoileus hemionus*), mountain lion (*Felis concolor*), and golden eagle (*Aquila chrysaetos*). Depending on present species, this generalized habitat may also be considered chamise or maritime chaparral. When coast white lilac (*Ceanothus verrucosus*) and/or scrub oak is present with or without other indicator species present, this habitat could be considered Tier I southern maritime chaparral per City's Biology Guidelines (2012).

Southern mixed chaparral is the third largest vegetation community within the KMCPU area. It is mapped in airport property, along the undeveloped hillsides within Murphy Canyon, in the north within undeveloped lands south of SR-52, and within San Clemente Canyon in the northwest portion of the KMCPU area.

3.2.2.4 Maritime Succulent Scrub

Maritime succulent scrub, rare subtype of Diegan coastal sage scrub, is a low open scrub community that is dominated by a mixture of stem and leaf succulent species and drought deciduous species that also occur within sage scrub communities. This vegetation community occurs on thin, rocky or sandy soils, on steep (west or southern) slopes of coastal headlands and bluffs. Maritime succulent scrub is generally restricted to the reach of the coastal fog belt and extends north to south from about Torrey Pines to southern Baja with island sub-types on San Clemente and Catalina islands. The dominant species typically found within this vegetation community include coast barrel cactus (*Ferocactus viridescens*), velvet cactus (*Bergerocactus emoryi*), prickly pear cactus (*Opuntia littoralis*), cliff spurge (*Euphorbia misera*), dudleya (*Dudleya* spp.), desert thorn (*Lycium californicum*), and California sunflower *(Bahiopsis laciniata)* (Oberbauer et al. 2008).

Within the KMCPU area maritime succulent scrub is mapped in two areas in the southwest, along the undeveloped hillsides near Murphy Canyon.

3.2.2.5 Non-Native Grassland

Non-native grassland occurs seasonally in response to winter and spring rains and is a dense to sparse cover of annual, non-native grasses, sometimes associated with species of showy-flowered, native, annual forbs. This community characteristically occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species in non-native grassland include oats (*Avena* spp.), red brome (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), ryegrass (*Lolium* sp.), and mustard (*Brassica* sp.). Most of the annual, introduced species that comprise the majority of species and biomass within non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California's climate. These two factors, in addition to intensive grazing and agricultural practices in conjunction with severe droughts, contributed to the successful invasion and establishment of these species and the replacement of native grasses with an annual-dominated, non-native grassland (Jackson 1985). These grasslands occur throughout San Diego County and serve as valuable raptor foraging habitat.

Broadleaf-dominated non-native grassland is a subtype of non-native grassland, but is dominated greater than 50 percent by one or several invasive annual broadleaf species, such as: mustard, fennel (*Foeniculariumvulgare*), or thistle (*Centaurea* spp.).

Non-native grasslands (including broadleaf-dominated) are the second most abundant vegetation community within the KMCPU area and have been mapped in the airport property, along the undeveloped hillsides near and within Murphy Canyon, and in the north within undeveloped lands south of SR-52.

3.2.2.6 Scrub Oak Chaparral

Scrub oak chaparral is a dense, evergreen shrub up to 20 feet tall, dominated by scrub oak *(Quercus dumosa)* with considerable mountain mahogany (*Cercocarpus betuloides*). Scrub oak chaparral occurs in somewhat more mesic areas than many other chaparrals, such as north facing slopes, and recovers more rapidly from fires than other chaparrals due to resprouting capabilities of scrub oak. This vegetation community often occurs at slightly higher elevations (to 5,000 feet) and substantial leaf litter accumulates (Oberbauer et al. 2008).

Within the KMCPU area scrub oak chaparral is mapped in the southwest along the undeveloped hillsides within Murphy Canyon.

3.2.2.7 Valley and Foothill Grassland

Valley and foothill grassland is rare, native grassland community dominated by perennial native bunchgrasses such as purple needle grass (*Nassella pulchra*) with annual and perennial forbs such as common golden stars (*Bloomeria crocea* ssp. *crocea*) and California blue-eyed grass (*Sisyrinchium bellum*). Native grasslands generally occur on fine-textured soils that exclude the annual, exotic grasses. Almost all of the native grasslands in California have been displaced by non-native grassland dominated by introduced annual species. Native grasslands occur throughout California as small isolated islands.

Within the KMCPU area valley and foothill native grasslands occur as isolated blocks of habitat in the north south of SR-52 and in the central portion of the KMCPU area approximately 0.25 mile north of the airport property.

3.2.3 Other Uplands

Other uplands in this BRR consist of various vegetation communities/land cover types within the KMCPU area that are typically a result from some level of disturbance (e.g., development, encroachment, or other anthropogenic disturbances). These habitats can also be considered sensitive if they support a sensitive species (i.e., a hawk in a eucalyptus tree).

3.2.3.1 Developed

Developed land consist of areas that have been constructed upon or physically altered to which native vegetation is no longer supported. Typically, developed lands contain structures, impervious surfaces, or landscaped areas that are irrigated (Oberbauer et al. 2008).

Within the KMCPU area, developed land is the largest cover type occupying approximately 84 percent of the total KMCPU area.

3.2.3.2 Disturbed Habitat (Disturbed Land)

Disturbed habitat (Oberbauer)/disturbed land (City 2012 Biology Guidelines) is defined by areas that have been physically altered such that native habitat vegetation or structure is no longer present, but the area may still retain some native species or native soil substrate. These areas are not typically artificially irrigated but may receive water from precipitation and man-made runoff. Vegetation present is a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (Oberbauer et al. 2008).

Areas within the KMCPU area mapped as disturbed land primarily occur on the airport property, but other areas of disturbed habitat are mapped in various locations throughout the KMCPU area in the north, east, and south.

3.2.3.3 Eucalyptus Woodland

Eucalyptus woodland is a community dominated by eucalyptus (*Eucalyptus* sp.), an introduced genus that has often been planted purposely for wind blocking, ornamental, and hardwood production purposes. Most groves are monotypic with the most common species being either the blue gum (*Eucalyptus gunnii*) or red gum (*E. camaldulensis* ssp. *obtusa*). The understory within well-established groves is usually very sparse due to the closed canopy and allelopathic nature of the abundant leaf and bark litter. If sufficient moisture is available, this species becomes naturalized and is able to reproduce and expand its range. The sparse understory offers only limited wildlife habitat; however, as a wildlife habitat, these woodlands can provide excellent nesting sites for a variety of raptors if the woodlands are not located in highly urbanized environments. During winter migrations, a large variety of warblers may be found feeding on the insects that are attracted to eucalyptus flowers.

Eucalyptus woodland is mapped in a few relatively small areas of the KMCPU area; in the eastern portion of the airport property and in the southwest near the undeveloped hillsides of Murphy Canyon.

3.3 SENSITIVE BIOLOGICAL RESOURCES

According to City Municipal Code (Chapter 11, Article 3, Division 1) and the City's Biology Guidelines (City 2012), sensitive biological resources refers to upland and/or wetland areas that meet any one of the following criteria:

a. Lands that have been included in the City's MSCP Preserve (i.e., the Multi-Habitat Planning Area [MHPA]);

b. Wetlands;[1]

[1] City Wetlands, specifically, are defined by the City Municipal Code (Chapter 11, Article 3, Division 1) as areas that are characterized by any of the following summarized conditions.

a. All areas persistently or periodically containing naturally occurring wetland vegetation communities;
b. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities; and/or
c. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands.

c. Lands that contain Tier I, Tier II, Tier IIIA, or Tier IIIB habitats;

d. Lands supporting species or subspecies listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;

e. Lands containing habitats with MSCP Narrow Endemic species as listed in the City's Biology Guidelines (City 2012); or

f. Lands containing habitats of MSCP Covered Species as listed in the City's Biology Guidelines (City 2012).

3.3.1 Sensitive Vegetation Communities

The City's Biology Guidelines define which vegetation communities are sensitive. Upland vegetation communities are divided into five tiers of sensitivity (the first being the most sensitive, the fifth the least sensitive) based on rarity and ecological importance (City 2012). Tier I includes rare uplands; Tier II includes uncommon uplands; Tiers IIIA and IIIB include common uplands, and Tier IV includes other uplands. Wetland communities are not assigned a tier under the City's Biology Guidelines but they are considered sensitive and have standard mitigation ratios applied. Additionally, typical non-sensitive habitats may be deemed sensitive if they support a sensitive species such as a burrowing owl or rare/endemic plant species.

Based on the definitions of "sensitive" and Table 1, above, the KMCPU area supports 15 sensitive vegetation communities. All seven of the wetland communities and eight of the 11 upland communities are considered sensitive.

3.3.2 Sensitive Plants

Sensitive plant species are those that are considered federal, State, or CNPS rare, threatened, or endangered; MSCP Covered Species; or MSCP Narrow Endemic (NE) species (Appendix A). More specifically, if a species is designated with any of the following statuses (a-c below), it is considered sensitive per City Municipal Code (Chapter 11, Article 3, Division 1):

a. A species or subspecies is listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;

b. A species is a Narrow Endemic as listed in the Biology Guidelines in the Land Development Manual (City 2012); and/or

c. A species is an MSCP Covered Species as listed in the Biology Guidelines in the Land Development Manual (City 2012).

A plant species may also be considered sensitive if it is included in the CNPS Inventory of Rare and Endangered Plants (CNPS 2018).

Sensitive plant status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exists naturally in small populations.

Per the sources listed above, a total of 20 sensitive plant species have been identified as being within or adjacent to the KMCPU area. Each of these species are listed below.

- **singlewhorl burrobrush** (*Ambrosia monogyra*) (CNPS Rare Plant Rank 2B.2),
- **San Diego ambrosia** (*Ambrosia pumila*) (CNPS Rare Plant Rank 1B.1, MSCP Covered),
- **San Diego goldenstar** (*Bloomeria clevelandii*) (CNPS Rare Plant Rank 1B.1, MSCP Covered),
- **Orcutt's brodiaea** (*Brodiaea orcuttii*) (CNPS Rare Plant Rank 1B.1, MSCP Covered),
- **wart-stemmed ceanothus** (*Ceanothus verrucosus*) (CNPS Rare Plant Rank 2B.2),
- **Orcutt's spineflower** (*Chorizanthe orcuttiana*) (Federally Endangered, State Endangered, CNPS Rare Plant Rank 1B.1),
- **knotweed spineflower** (*Chorizanthe polygonoides*), Federal Species of Special Concern, CNPS Rare Plant Rank 1B.1),
- **long-spined spineflower** (*Chorizanthe polygonoides var. longispina*) (CNPS Rare Plant Rank 1B.2),
- **summer holly** (*Comarostaphylis diversifolia* ssp. *diversifolia*) (CNPS Rare Plant Rank 1B.2),
- **variegated dudleya** (*Dudleya variegata*) (CNPS Rare Plant Rank 1B.2, MSCP Covered),
- **San Diego button-celery** (*Eryngium aristulatum var. parishii*) (Federally Endangered, State Endangered, CNPS Rare Plant Rank 1B.1, VPHCP Covered),
- **San Diego barrel cactus** (*Ferocactus viridescens*) (CNPS Rare Plant Rank 2B.1, MSCP Covered),
- **decumbent goldenbush** (*Isocoma menziesii var. decumbens*) (CNPS Rare Plant Rank 1B.2),
- **willowy monardella** (*Monardella viminea*) (Federally Endangered, State Endangered, CNPS Rare Plant Rank 1B.1, MSCP Covered),
- **spreading navarretia** (*Navarretia fossalis*) (Federally Threatened, CNPS Rare Plant Rank 1B.1, VPHCP Covered),
- **prostrate vernal pool navarretia** (*Navarretia prostrata*) (CNPS Rare Plant Rank 1B.1, MSCP Covered),
- **San Diego mesa mint** (*Pogogyne abramsii*) (Federally Endangered, State Endangered, CNPS Rare Plant Rank 1B.1, VPHCP Covered),
- **Nuttall's scrub oak** (*Quercus dumosa*) (CNPS Rare Plant Rank 1B.1),
- **oil nest straw** (*Stylocline citroleum*) (CNPS Rare Plant Rank 1B.1), and
- **woven-spored lichen** (*Texosporium sancti-jacobi*) (CNPS Rare Plant Rank 3).

Although the species listed above are recorded in or adjacent to the KMCPU area, three of these species have historical occurrence records and are currently presumed to be extirpated or possibly extirpated from the KMCPU area. These three species include: San Diego ambrosia, Orcutt's spineflower, and woven-spored lichen.

A search of CNPS and CNDDB records (two-mile radius from the KMCPU area) was used to develop a matrix of additional sensitive plant species that may have potential to occur in the KMCPU area due to the presence of suitable habitat (e.g., vegetation communities, soils, elevation, and geographic range, life form/blooming period, etc.). The matrix is presented in Table 2 and includes 14 additional special status plant species, their favorable habitat conditions, and their potential to occur in the KMCPU area.

Table 2
SENSITIVE PLANT SPECIES AND POTENTIAL TO OCCUR IN THE KEARNY MESA COMMUNITY PLAN UPDATE AREA[1]

Species	Sensitivity[2] Federal State CNPS City	Habitat(s)/Range and Potential to Occur	Lifeform[3] and Bloom Period
San Diego thorn-mint (*Acanthomintha ilicifolia*)	FT SE CNPS 1B.1 MSCP Covered NE	**Low Potential.** Occurs between 10 and 960 meters AMSL on clay soils in chaparral, coastal sage scrub, valley and foothill grassland, and vernal pools. CNDDB has two records of this species within two miles of the KMCPU area; however, these records are historical (1936) and this species is presumed to be extirpated from the majority of this portion of the County as a result of development. There is one extant population known to occur within an SDG&E utility easement on the U.S. Naval Golf Course within the Navajo community. Suitable habitat present, but species is likely extirpated within the KMCPU area.	Annual herb April to June
California adolphia (*Adolphia californica*)	-- -- CNPS 2B.1 --	**High Potential.** Found in clay soils in chaparral, coastal scrub, and valley and foothill grassland vegetation between 10 and 740 meters AMSL. CNDDB has three extant populations known to occur southeast and south of the KMCPU area along I-8 freeway. Suitable habitat present in the KMCPU area.	Perennial, deciduous shrub December to May
Coulter's saltbush (*Atriplex coulteri*)	-- -- CNPS 1B.2 NE	**Not Expected.** Occurs between 3 and 460 meters AMSL in areas of alkaline or clay soils within coastal bluff scrub, coastal dunes, coastal scrub, and native grasslands. CNDDB has one extant population known to occur south of the KMCPU area in an undeveloped urban canyon in the community of Serra Mesa. Suitable habitat is present in the KMCPU area.	Perennial herb March to October
Otay Mountain ceanothus (*Ceanothus otayensis*)	-- -- CNPS 1B.2	**Not Expected.** Occurs between 600 and 1100 meters AMSL in areas of metavolcanic or gabbroic soils where chaparral vegetation. CNDDB has one extant population known to occur north of the KMCPU area within the MCAS Miramar. Suitable habitat does not occur in the KMCPU area.	Perennial shrub January to April
Palmer's goldenbush (*Ericameria palmeri var. palmeri*)	-- -- CNPS 1B.1	**Moderate Potential.** Occurs between 300 and 600 meters AMSL in mesic soils and associated with chaparral and coastal scrub vegetation. CNDDB has one extant population known to occur south of the KMCPU area along I-8 freeway. Suitable habitat is present in the KMCPU area.	Perennial shrub July to November

Table 2 (cont.)
SENSITIVE PLANT SPECIES AND POTENTIAL TO OCCUR IN THE KEARNY MESA COMMUNITY PLAN UPDATE AREA[1]

Species	Sensitivity[2] Federal State CNPS City	Habitat(s)/Range and Potential to Occur	Lifeform[3] and Bloom Period
Palmer's grapplinghook (*Harpagonella palmeri*)	-- -- CNPS 4.2	**Moderate Potential.** Occurs between 20-955 meters AMSL in clay soils that support chaparral, coastal scrub vegetation, and native grasslands. Found in openings within the vegetation. CNDDB has two extant populations known to occur within two miles of the KMCPU area northwest on MCAS Miramar and east of the KMCPU area in the community of Tierrasanta. Suitable habitat is present in the KMCPU area.	Annual shrub March to May
San Diego marsh-elder (*Iva hayesiana*)	-- -- CNPS 2B.2	**Moderate Potential.** Found in marshes, swamps, plays, and often associated with drainage channels. Found between 10 and 500 meters AMSL in openings within the vegetation. CNDDB has one extant population known to occur within two miles of the KMCPU area; located north within Rose Canyon the communities of University and Clairemont. Suitable wetland habitat and drainages that could support this species occur in the KMCPU area	Perennial herb April to October
Coulter's goldfields (*Lasthenia glabrata* ssp. *Coulteri*)	-- -- CNPS 1B.1	**Moderate Potential.** Occurs in coastal marshes and swamps, plays, and vernal pools between 1 and 1,220 meters AMSL. CNDDB has one extant population known to occur north of the KMCPU area within the MCAS Miramar. Suitable vernal pool is present habitat in the KMCPU area.	Annual herb February to June
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	-- -- CNPS 4.3	**Moderate Potential.** Occurs in chaparral and coastal scrub vegetation. CNDDB has two extant populations known to occur within two miles of the KMCPU area: north within Rose Canyon and east of the KMCPU area in the community of Tierrasanta. Additional observations of this species were recorded in 2018 adjacent to the KMCPU area, located east of I-15, in the community of Tierrasanta. Suitable habitat is present in the KMCPU area.	Annual herb January to July
Little mousetail (*Myosurus minimus* ssp. *apus*)	-- -- CNPS 3.1	**High Potential.** Occurs between 20 and 640 meters AMSL in native grasslands and often found near vernal pools. CNDDB has one extant population known to occur within two miles of the KMCPU area and located east in the community of Tierrasanta. Suitable vernal pool habitat is present in the KMCPU area.	Annual herb March to June

Table 2 (cont.)
SENSITIVE PLANT SPECIES AND POTENTIAL TO OCCUR IN THE KMCPU AREA[1]

Species	Sensitivity[2] Federal State CNPS City	Habitat(s)/Range and Potential to Occur	Lifeform[3] and Bloom Period
California Orcutt grass (*Orcuttia californica*)	FE SE CNPB 1B.1 NE VPHCP Covered	**Moderate Potential**. Occurs in vernal pool habitats between 15 and 660 meters AMSL. CNDDB has three extant populations known to occur within two miles of the KMCPU area: all are found associated with the vernal pool complexes on MCAS Miramar. Suitable vernal pool habitat is present in the KMCPU area.	Annual herb April to August
Otay mesa mint (*Pogogyne nudiuscula*)	FE SE CNPS 1B.1 NE VPHCP Covered	**Not Expected**. Found in vernal pools on Otay Mesa in San Diego County between 90 and 250 meters AMSL. CNDDB has two records of this species within two miles of the KMCPU area. Although suitable habitat is present in the KMCPU area, this species is considered extirpated by development in this region of the County.	Annual herb May to July
Munz's sage (*Salvia munzii*)	-- -- CNPS 2B.2	**Moderate Potential.** Occurs in chaparral and coastal scrub vegetation between 115 and 1,065 meters AMSL. CNDDB has one record of this species within two miles of the KMCPU area, located with Ruffin Canyon in the community of Serra Mesa. Suitable habitats are present in the KMCPU area.	Perennial shrub February to April
San Diego County viguiera (*Viguiera laciniata*)	-- -- CNPS 4.2 --	**High Potential**. Found in chaparral and coastal scrub in a variety of soil types at elevations of between 195 feet to 2,460 feet AMSL. This species was observed in 2018 adjacent to the KMCPU area, located east of I-15 and along Clairemont Mesa Boulevard, in the community of Tierrasanta. Suitable habitat is present in the KMCPU area.	Perennial shrub February to August

[1]Sensitive includes MSCP Narrow Endemic and Covered Species.
[2]See Appendix A for an explanation of sensitivity codes.
[3]Lifeform and bloom period are from CNPS (2017).

3.3.3 Sensitive Wildlife

Sensitive animal species are those that are considered federal or State threatened or endangered; MSCP Covered Species; or MSCP Narrow Endemic species (Appendix A). More specifically, if a species is designated with any of the following statuses (a-c below), it is considered sensitive per City Municipal Code (Chapter 11, Article 3, Division 1):

a. A species or subspecies is listed as endangered or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;

b. A species is a Narrow Endemic as listed in the Biology Guidelines in the Land Development Manual (City 2012); and/or

c. A species is a MSCP Covered Species as listed in the Biology Guidelines in the Land Development Manual (City 2012).

A species may also be considered sensitive if it is included on the CDFW's Special Animals List (CDFW 2018a-e) as a candidate for federal or State listing, State Species of Special Concern, State Watch List species, State Fully Protected species, or federal Bird of Conservation Concern (Appendix A). Generally, the principal reason an individual taxon (species or subspecies) is considered sensitive is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Additionally, avian nesting is protected by the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.

A total of 11 sensitive wildlife species have been recorded within or adjacent to the KMCPU area. Each of these species are listed below.

- **Cooper's hawk** (*Accipter cooperii*) (CDFW Species of Special Concern),
- **California glossy snake** (*Arizona elegans occidentalis*) (CDFW Species of Special Concern),
- **orange-throated whiptail** (*Aspidoscelis hyperythra*) (CDFW watch list, MSCP Covered),
- **burrowing owl** (*Athene cunicularia*) (CDFW Species of Special Concern, MSCP Covered),
- **San Diego fairy shrimp** (*Branchinecta sandiegonensis*) (Federally Endangered, VPHCP Covered),
- **prairie falcon** (*Falco mexicanus*) (CDFW watch list),
- **coast horned lizard** (*Phrynosoma blainvillii*) (CDFW Species of Special Concern, MSCP Covered),
- **coastal California gnatcatcher** (*Polioptila californica californica*) (Federally Threatened, CDFW Species of Special Concern, MSCP Covered),
- **Quino checkerspot butterfly** (*Euphydryas editha quino*) (Federally Endangered),
- **southwestern willow flycatcher** (*Empidonax traillii extimus*) (Federally Endangered, State Endangered, MSCP Covered), and
- **yellow warbler** (*Setophaga petechia*) (USFWS Bird of Conservation Concern, CDFW Species of Special Concern).

Although the wildlife species listed above are recorded in or adjacent to the KMCPU area, two of these species have historical occurrence records and are currently presumed to be extirpated or possibly extirpated from the KMCPU area; including: prairie falcon and quino checkerspot butterfly. Additionally, although a single southwestern willow flycatcher was recorded during general biological field surveys for the City's Pure Water Final EIR (City 2018a), this species is not expected to breed within the KMCPU area due to lack of suitable habitat.

A search of CNDDB and USFWS records (two-mile radius from the KMCPU area) was used to develop a matrix of additional sensitive wildlife species that may have potential to occur in the KMCPU area due to the presence of suitable habitat (e.g., vegetation communities, soils, elevation, and geographic range, etc.). The matrix is presented in Table 3 below and includes the additional special status wildlife species, their favorable habitat conditions, and their potential to occur in the KMCPU area.

Table 3
SENSITIVE WILDLIFE SPECIES AND POTENTIAL TO OCCUR IN THE KEARNY MESA COMMUNITY PLAN UPDATE AREA[1]

Species	Sensitivity[2] Federal State City	Habitat and Potential to Occur
Amphibians		
Western spadefoot (*Spea hammondii*)	-- SSC --	**Moderate Potential.** Inhabits floodplains, washes, and low hills. In southern California, its habitats include coastal sage scrub, chaparral, and grassland. Important habitat components include temporary pools (which form during winter and spring rains) for breeding and friable soils for burrowing. CNDDB has one record of this species occurring within two miles of the KMCPU area, within an SDG&E utility easement northwest of Qualcomm Stadium in the community of Mission Valley. Suitable habitat is present in the wetland and vernal pool portions of the KMCPU area.
Reptiles		
Two-striped garter snake (*Thamnophis hammondii*)	-- SSC --	**Moderate Potential.** Occurs primarily along permanent creeks and streams but also around vernal pools and along intermittent streams. It is occasionally found in chaparral or other habitats relatively far from permanent water. CNDDB has one record of this species occurring within two miles of the KMCPU area, located northwest within the MCAS Miramar. Suitable vernal pools habitat is present in the KMCPU area; however, this species prefers permanent aquatic habitats, which are limited within the KMCPU area.
Coronado skink (*Plestiodon skiltonianus interparietalis*)	-- SSC --	**High Potential.** Found in grasslands, coastal sage scrub, open chaparral, pine oak woodland, and coniferous forests. It prefers areas where there is abundant leaf litter or low, herbaceous growth. CNDDB has one record of this species occurring within two miles of the KMCPU area, located north within the MCAS Miramar. Suitable habitat for this species is present in the KMCPU area.

Table 3 (cont.)
SENSITIVE WILDLIFE SPECIES AND POTENTIAL TO OCCUR IN THE KEARNY MESA COMMUNITY PLAN UPDATE AREA[1]

Species	Sensitivity[2] Federal State City	Habitat and Potential to Occur
Birds		
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	-- WL MSCP Covered	**Moderate Potential.** Occurs in coastal sage scrub and chaparral habitats of moderate density throughout the County. CNDDB has one record of this species occurring within two miles of the KMCPU area, located northeast along an SDG&E easement within the U.S. Naval Recreation Facility in the community of Navajo. Suitable habitat is present in the KMCPU area.
Yellow-breasted chat (*Icteria virens*)	-- SSC --	**High Potential.** In California, this species is found in a variety of dense riparian thickets during its breeding season, and is mostly absent during the winter months. Observations of this species were recorded in 2018 adjacent to the KMCPU area, located north within the MCAS Miramar. Suitable habitat for this species is present in the KMCPU area and the species may move through the KMCPU area during migration; however, larger habitat blocks occur outside of the KMCPU area and are more likely to be inhabited and used for breeding by this species. Suitable habitat is present in the KMCPU area.
Least Bell's vireo (*Vireo bellii pusillus*)	FE SE MSCP Covered	**Moderate Potential.** The least Bell's vireo is found a variety of riparian scrub, woodland, and forest habitats in California and northern Baja California, Mexico during its breeding season. It winters in southern Baja California, Mexico. CNDDB has several records of this species occurring within two miles of the KMCPU area. All of these records are south of the KMCPU area within the riparian corridor of the San Diego River in the community of Mission Valley. Suitable habitat for this species is present in the KMCPU area and the species may move through the KMCPU area during migration; however, larger habitat blocks occur outside of the KMCPU area and are more likely to be inhabited and used for breeding by this species.

Table 3 (cont.)
SENSITIVE WILDLIFE SPECIES AND POTENTIAL TO OCCUR IN THE KEARNY MESA COMMUNITY PLAN UPDATE AREA[1]

Species	Sensitivity[2] Federal State City	Habitat and Potential to Occur
Mammals		
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	-- SSC --	**Potential.** Occurs in coastal sage scrub, grasslands, and sparse chaparral; usually with loams and sandy substrates. CNDDB has one record of this species occurring within two miles of the KMCPU area, located east in the community of Tierrasanta. Suitable habitat is present in the KMCPU area.
Western mastiff bat (*Eumops perotis californicus*)	-- SSC --	**Potential.** Found in chaparral where associated with oak trees. Also prefers cracks and small holes within rocky areas and man-made structures. CNDDB has two records of this species occurring within two miles of the KMCPU area, located southeast near San Diego State University in the community of Navajo. Limited suitable chaparral habitat is present in the KMCPU area.
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	-- SSC --	**Not Expected.** Occurs in desert areas with high cliffs and/or rock outcrops. CNDDB has two records of this species documented within two miles of the KMCPU area in the adjacent communities of Linda Vista and Clairemont; however, these records are from 1983 and 1987 and are of deceased individuals that were reported to the County Public Health Department. No suitable habitat present in the KMCPU area.
Big free-tailed bat (*Nyctinomops macrotis*)	-- SSC --	**Not Expected.** Found in rocky rugged areas with canyons and/or cliffs. CNDDB has one record of this species documented within two miles of the KMCPU area in the adjacent community of Clairemont; however, this record is from 1983 and 1987 and are of deceased individuals that were reported to the County Public Health Department. No suitable habitat present in the KMCPU area.

[1]Sensitive includes MSCP Narrow Endemic and Covered Species.
[2]See Appendix A for an explanation of sensitivity codes.

3.3.4 U.S. Fish and Wildlife Service Critical Habitats

Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. Within the KMCPU area USFWS-designated critical habitat occurs and provides habitat protection for two listed species: spreading navarretia and San Diego fairy shrimp (USFWS 2018b). Federally-designated critical habitat these two species within the KMCPU area is presented on Figure 6 herein.

No other critical habitat (including proposed designations) for plants or animals occurs in the KMCPU area.

3.4 JURISDICTIONAL RESOURCES

Agencies with jurisdictional authority over wetlands, waters, and other aquatic resources include the U.S. Army Corps of Engineers (USACE), CDFW, Regional Water Quality Control Board (RWQCB), and the City. In addition, the USFWS may take jurisdiction for areas supporting endangered or sensitive species via consultation with the USACE (i.e., for fairy shrimp in roadway depressions). In general, jurisdictional resources are grouped into three primary categories: wetlands, non-wetland waters, and associated aquatic vegetation. A formal jurisdictional delineation was not conducted as part of this BRR. Individual assessments of wetland and waters resources within the KMCPU area should be conducted at a project-level for all future proposed development projects that may have wetlands/waters on or adjacent to the project area. Furthermore, a formal jurisdictional delineation may be required to identify such jurisdictional features and the corresponding boundary extents of identified jurisdictional areas, and to determine if proposed project impacts would occur. Potentially jurisdictional areas and features within the KMCPU area are described below.

Vegetation communities in the KMCPU area that may also be jurisdictional wetlands include: disturbed wetland, southern riparian forest, riparian scrub, southern riparian woodland, southern sycamore-alder riparian woodland, southern willow scrub, and vernal pools. In addition to the vegetation mapping, the National Wetlands Inventory (NWI; USFWS 2018a) database shows riverine and freshwater areas within the KMCPU area; specifically, PEM1A: palustrine, emergent, persistent, temporary flooded; PEM1Ax: palustrine, emergent, persistent, temporary flooded, excavated; PEM1Ah: palustrine, emergent, persistent, temporary flooded, diked/impounded; PEM1Ch: palustrine, emergent, persistent, seasonally flooded; PFO/SSA: palustrine, forested, scrub-shrub, temporary flooded; PFOC: palustrine, forested, seasonally flooded; PFOA: palustrine, forested, temporary flooded; PSSA: palustrine, scrub-shrub, temporary flooded; PSSAx: palustrine, scrub-shrub, temporary flooded, excavated; R4SBA: riverine, intermittent, streambed, temporary flooded; and RS4SBAx: riverine, intermittent, streambed, temporary flooded, excavated.

Riverine areas recorded in the NWI database occur in four locations associated with either San Clemente Canyon along the northern portion of the KMCPU area or Murphy Canyon along the eastern portion of the KMCPU area (see Figure 4). Due to contiguity of linear stream features, most of these reach areas may be considered jurisdictional wetlands and/or waters.

3.4.1 Federal

Wetlands. As stated in the federal regulations for the Clean Water Act, wetlands are defined as:

> "…those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil…." (EPA, 40 CFR 230.3 and CE, 33 CFR 328.3)

Wetlands are delineated using three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils.

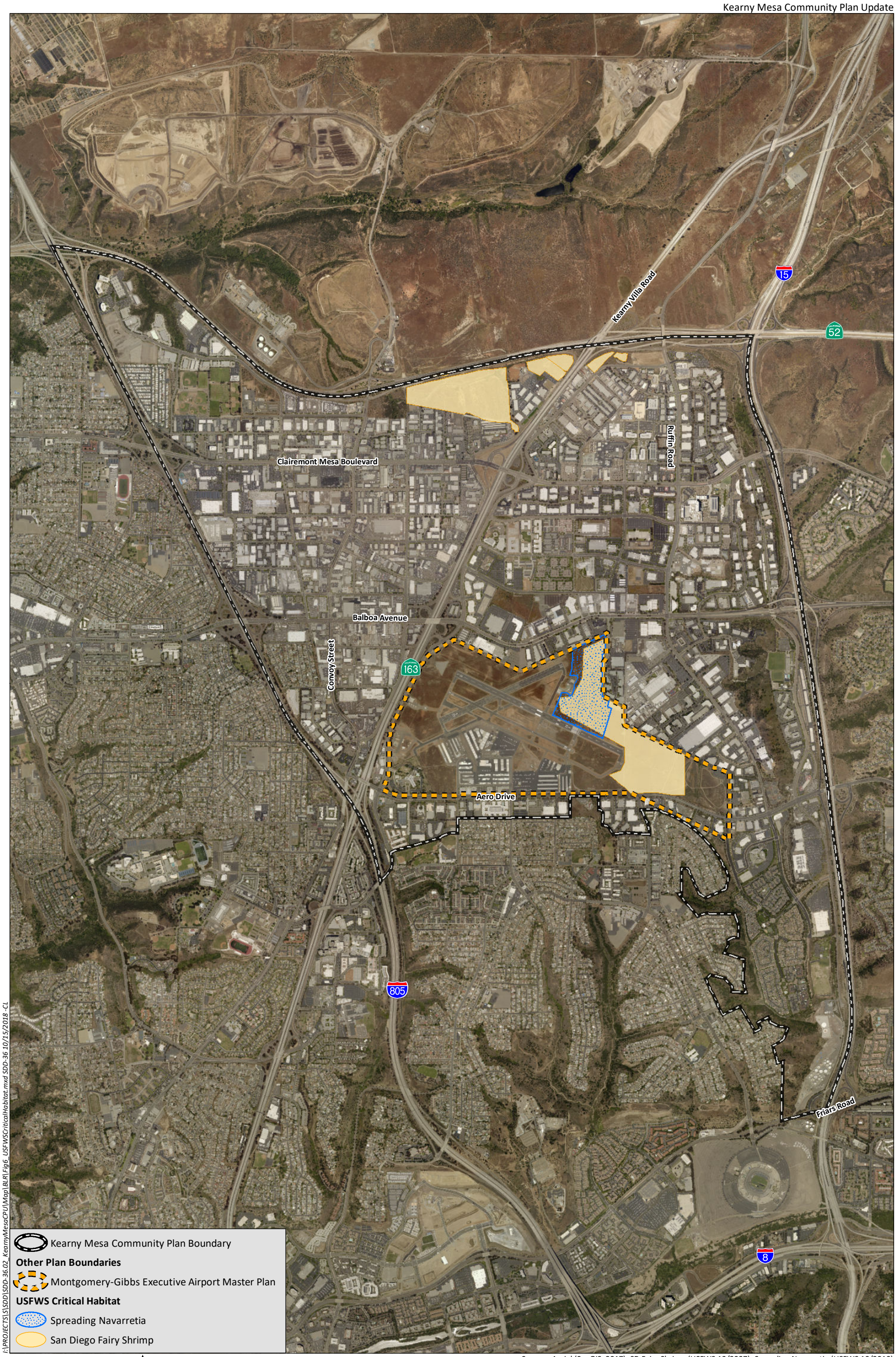
Per Section 404 of the Clean Water Act, a "no net loss of wetlands" policy applies to projects with wetland impacts in the United States. This means that in order for a wetland take to occur, mitigation must include a 1:1 replacement component in the form of creation or restoration. A second component (minimum 1:1 ratio) must also occur consisting of preservation, enhancement, or other Agency acceptable form of wetland mitigation.

U.S. Army Corps of Engineers

Wetlands. According to the USACE, indicators for all three parameters must be present to qualify an area as a wetland.

Waters of the U.S. In accordance with Section 404 of the Clean Water Act, the USACE regulates the discharge of dredged or fill material into waters of the U.S. The term "waters of the United States" is defined as:

- All waters currently used, or used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; the use, degradation, or destruction of which could affect foreign commerce including any such waters: (1) which could be used by interstate or foreign travelers for recreational or other purposes; or (2) from which fish or shellfish are, or could be taken and sold in interstate or foreign commerce; or (3) which are used or could be used for industries in interstate commerce;
- All other impoundments of waters otherwise as defined as waters of the United States under the definition;
- Tributaries of waters identified above;
- The territorial seas; and wetlands adjacent to waters (other than waters that are themselves wetlands) identified in the paragraphs above [33 CFR Part 328.3(a)].



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Source: Aerial (SanGIS, 2017); SD Fairy Shrimp (USFWS 12/2007); Spreading Navarretia (USFWS,10/2010)

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USFWS Critical Habitat

Figure 6

The USACE also requires the delineation of non-wetland jurisdictional waters. These waters must have strong hydrology indicators such as the presence of seasonal flows and an ordinary high water mark. An ordinary high water mark is defined as:

> that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR Part 328.3).

Areas delineated as non-wetland jurisdictional waters may lack wetland vegetation or hydric soil characteristics. Hydric soil indicators may be missing because topographic position precludes ponding and subsequent development of hydric soils. Absence of wetland vegetation can result from frequent scouring due to rapid water flow. These types of jurisdictional waters are delineated by the lateral and upstream/downstream extent of the ordinary high water mark of the particular drainage or depression.

U.S. Fish and Wildlife Service

USFWS jurisdiction may be evoked should the USACE ask for consultation for a given resource (typically a vernal pool). Due to the recent adoption of the City's VPHCP, this may not be required; however, some federal permits are still in process at this writing and therefore USFWS may be involved with potential wetland/waters.

3.4.2 Regional Water Quality Control Board

The RWQCB is a regional agency responsible for protecting water quality in California. The RWQCB asserts regulatory jurisdiction over activities affecting wetland and non-wetland Waters of the State pursuant to Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act. The RWQCB requires a delineation of resources to document wetland and non-wetland Waters of the State. The RWQCB issues a Clean Water Act Section 401 Water Quality Certification for projects that affect Waters of the State and requires a Report of Waste Discharge for projects that affect water quality of isolated Waters of the State under Porter-Cologne.

3.4.3 California Department of Fish and Wildlife

Under sections 1600 et. seq. of California Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife and requires a Streambed Alteration Agreement for such activities. The CDFW issues a Streambed Alteration Agreement with any necessary mitigation to ensure protection of the State's fish and wildlife resources. The CDFW has jurisdiction over riparian habitats associated with watercourses. The CDFW jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider.

3.4.4 Local

City of San Diego

According to City Municipal Code (Chapter 11, Article 3, Division 1), areas that are characterized by any of the following conditions are considered wetlands.

a. All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools;

b. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation, or catastrophic or recurring natural events or processes have acted to preclude the establishment of wetland vegetation as in the case of salt pannes and mudflats;

c. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands; and/or

d. Areas mapped as wetlands on Map No. C-713 as shown in Chapter 13, Article 2, Division 6 (Sensitive Coastal Overlay Zone).

Within the KMCPU area, the habitats considered to be City wetlands are presented in Table 1 and include the following seven habitats: disturbed wetland (non-native riparian), southern riparian forest, southern riparian scrub, southern riparian woodland, southern sycamore-alder riparian woodland, southern willow scrub (including disturbed form), and vernal pools.

3.5 WILDLIFE MOVEMENT CORRIDORS

Wildlife corridors are linear spaces of undeveloped native habitats that connect large natural open space and provide opportunities for wildlife movement either at a regional or local scale. Habitat linkages between wildlife corridors connect isolated blocks of habitat and allow movement or dispersal species over a large scale and the consequent mixing of genes between populations (i.e., gene pool diversity). Wildlife corridors and habitat linkages contribute to species' sustainability by providing access to adjacent habitat areas for dispersal, foraging, and mating. Wildlife movement corridors and linkages are considered sensitive by the City, resource agencies, and conservation groups.

There are no designated regional corridors crossing the KMCPU area. The nearest regional corridor extends from the west to east via San Clemente Canyon south SR-52 then transitions north of SR-52 continuing through MCAS Miramar. Remaining undeveloped lands in the KMCPU area occur in the north in pockets along SR-52, in the east where the hillside and creek of Murphy Canyon are located, and in the south where a large vernal pool complex is located within the airport property. The undeveloped areas in the KMCPU area are limited in scope by surrounding existing development, including major freeways, but otherwise serve as stepping stones and local links within and between the remaining habitat in the KMCPU area and larger areas of native habitat and MHPA surrounding the KMCPU area (i.e., Stonecrest and San Diego River Park open space areas to the south; Mission Trails Regional Park

connections to the east, coastal canyons to the west and MCAS Miramar and Los Peñasquitos Canyon Preserve to the north (Figure 7).

The KMCPU area is likely to support urban adapted and migrating terrestrial wildlife species (i.e., birds, mammals, reptiles and amphibians, etc.), including the coyote (*Canis latrans*), and bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), and mountain lion (*Felis concolor*).

4.0 REGULATORY FRAMEWORK

In addition to jurisdictional resource regulations, the KMCPU is governed by federal, state, and local policies and regulations. This section provides a summary of applicable regulations to the KMCPU area. See Section 3.4 above for a discussion of the wetland/waters jurisdictional framework.

4.1 FEDERAL

4.1.1 Federal Endangered Species Act

Administered by the USFWS, the Federal Endangered Species Act (FESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the FESA. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. The ultimate goal is to restore healthy populations of listed species within their native habitats, so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the FESA, federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat.

Sections 7 and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 generally describes a process of federal interagency consultation and issuance of a biological opinion and incidental take statement when federal actions may adversely affect listed species. Section 10(a) generally describes a process for preparation of a Habitat Conservation Plan and issuance of an incidental take permit. Pursuant to Section 10(a), the City was issued a take permit for their adopted MSCP Subarea Plan and Vernal Pool Habitat Conservation Plan (VPHCP).

4.1.2 Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

4.2 STATE OF CALIFORNIA

4.2.1 California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (or impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

4.2.2 California Endangered Species Act

The California Endangered Species Act (CESA) established that it is state policy to conserve, protect, restore, and enhance state endangered species and their habitats. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). For state-only listed species, Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for State listed threatened and endangered species if specific criteria are met. The City was issued a take permit for their adopted MSCP Subarea Plan pursuant to Section 2081.

4.2.3 California Fish and Game Code

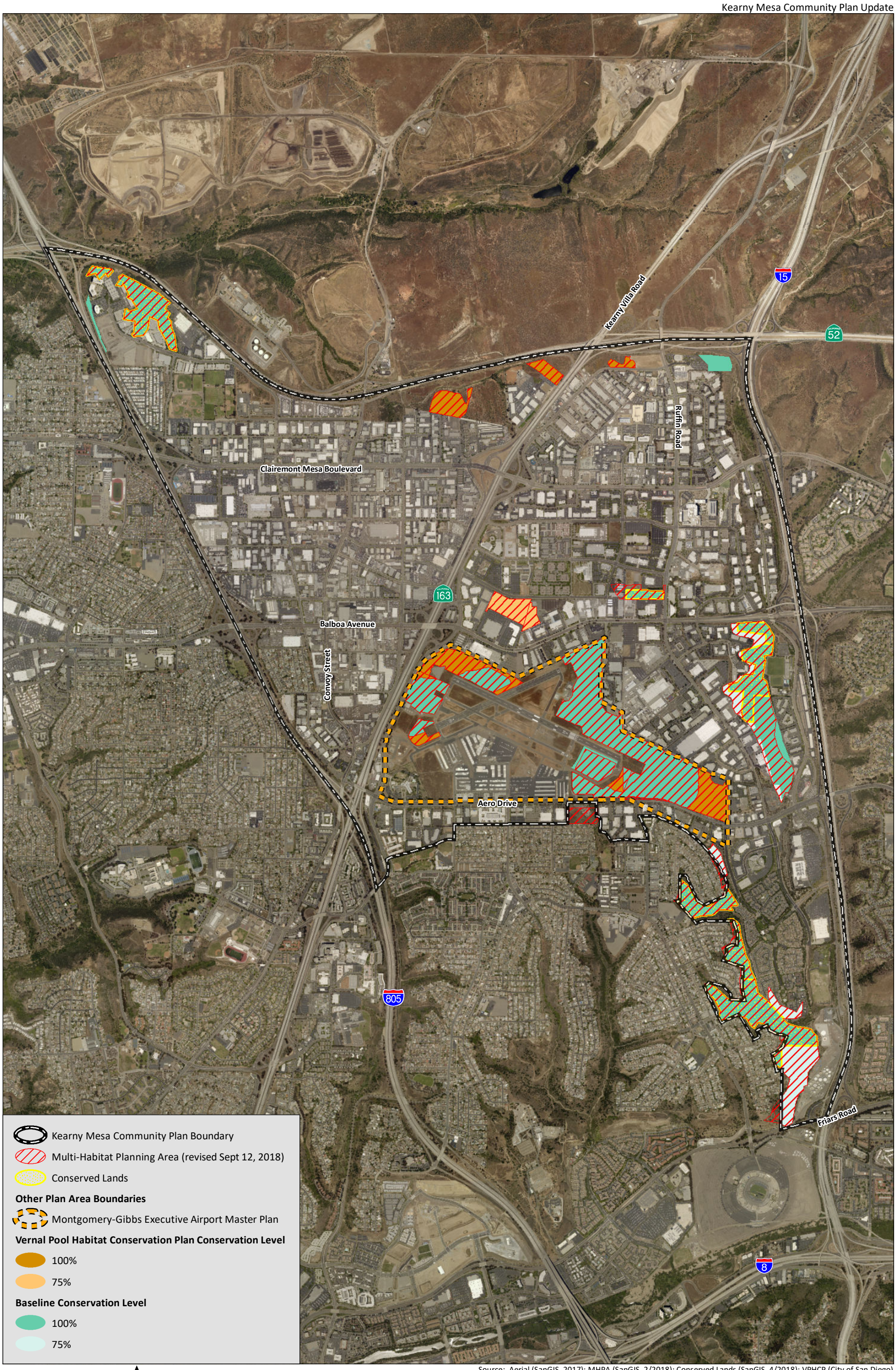
The CFG Code provides specific protection and listing for several types of biological resources. Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

4.3 CITY OF SAN DIEGO

4.3.1 Environmentally Sensitive Lands

Environmentally Sensitive Lands (ESL) include sensitive biological resources (e.g., MHPA), steep hillsides, coastal beaches, sensitive coastal bluffs, and 100-year floodplains. Mitigation requirements for sensitive biological resources follow the requirements of the City's Biology Guidelines (2012) as outlined in the City's Municipal Code ESL Regulations (Chapter 14, Article 3, Division 1). Impacts to biological resources within and outside the MHPA must comply with the City's ESL Regulations, which serve to implement standards and requirements of CEQA and the MSCP Subarea Plan.

The purpose of the ESL Regulations is to "protect, preserve and, where damaged, restore the ESL of San Diego and the viability of the species supported by those lands." The regulations require that development avoid impacts to certain sensitive biological resources as much as possible including but



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Source: Aerial (SanGIS, 2017); MHPA (SanGIS, 2/2018); Conserved Lands (SanGIS, 4/2018); VPHCP (City of San Diego)

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Conserved Lands and Open Space

Figure 7

not limited to MHPA lands; wetlands and vernal pools in naturally occurring complexes; federal and state listed, non-MSCP Covered Species; and MSCP Narrow Endemic species. Furthermore, the ESL Regulations state that wetlands impacts should be avoided, and unavoidable impacts should be minimized to the maximum extent practicable. In addition to protecting wetlands, the ESL Regulations require that a buffer be maintained around wetlands, as appropriate, to protect wetland-associated functions and values. While a 100-foot buffer width is generally required in the coastal zone and recommended in areas outside the coastal zone, this width may be increased or decreased on a case-by-case basis in consultation with the City, CDFW, USACE, and USFWS (City 2012). Future development within the KMCPU area would be required to comply with all applicable City ESL Regulations.

4.3.2 Multiple Species Conservation Program

The City, USFWS, CDFW and other local jurisdictions joined together in the late 1990s to develop the MSCP, a comprehensive regional program to preserve a network of habitat and open space and ensure the viability of sensitive species, while still permitting some level of continued development. The Program was developed pursuant to the outline developed by USFWS and CDFW to meet the requirements of the State Natural Communities Conservation Planning Act of 1992.

4.3.2.1 Multiple Species Conservation Program Subarea Plan

The MSCP Subarea Plan is broken into several sections that address requirements and guidelines of the plan including Section 1.4 Land Use Considerations and Section 1.5 Framework Management Plan. Other sections of the Subarea Plan that may apply include those for boundary line adjustments (Section 1.1.1); Compatible Land Uses, General Planning Policies/Design Guidelines, and MHPA Land Use Adjacency Guidelines (Sections 1.4.1-1.4.3) as well as general and specific management policies where applicable as well as Section 1.5.7 (Urban Habitat Lands under the Framework Management Plan). Since there is undeveloped land in the KMCPU area, and that land supports sensitive plant and wildlife species both within and outside the MHPA, the City's MSCP Subarea Plan and Implementing Agreement are applicable to development of the KMCPU area (see Figure 7).

The City's portion of the MSCP Program was adopted through the City's MSCP Subarea Plan (1997a). The MSCP Subarea Plan forms the basis to carry out the mandates of the MSCP Implementing Agreement, which is the contract for the 50-year incidental take permit (ITP) between the City, USFWS, and CDFW (City 1997b). The Implementing Agreement ensures implementation of the Subarea Plan and thereby allows the City to issue "take" permits under the federal and State Endangered Species Acts to address impacts at the local level. Under the federal Endangered Species Act, an ITP is required when non-federal activities would result in "take" of a threatened or endangered species.

With the ITP for the MSCP Subarea Plan issued pursuant to Section 10(a), the City has incidental "take" authority over 85 rare, threatened, and endangered species including regionally sensitive species that it aims to conserve (i.e., "MSCP Covered Species"). "MSCP Covered" species are considered to be adequately protected within the City's Preserve, the MHPA, and via application of all relevant elements of the MSCP Subarea Plan, including Appendix A – Species evaluated for coverage under the MSCP which lists any required conditions for each species to be applied to assure coverage such as modifying project design to avoid impacts, evoking various controls at the urban/wildlife interface, etc. Additional MSCP Subarea Plan discussion is located below under Section 4.3.2.3.

4.3.2.2 Multi-Habitat Planning Area

The MHPA is the area within the City from which the permanent MSCP preserve will be assembled and managed for its biological resources. The City's MHPA areas are defined by "baseline" maps, wherein development is limited based on the development area allowance of the open space residential zone (City 1997a) and MSCP Subarea Plan requirements.

The MHPA consists of public and private lands, where much of the required 90 percent of lands has already been conserved or assured for conservation by legal agreement (i.e., Cornerstone Lands). According to the MSCP Annual Report for 2017, over 96 percent of the required acreage has been conserved/assured (City 2018d). Conserved lands shown on the SanGIS database (Figure 7) can include lands that have been set aside for baseline conservation and or lands purchased for mitigation both within and outside of the MHPA. These lands may be owned by the City (i.e., dedicated lands) or other agencies, and may or may not show up on legally recorded documents such as final parcel maps as open space, conservation, or building restricted easements. In addition, they may or may not have associated covenant of easements, irrevocable offers to dedicate or have other legal restrictions associated with them.

In general, a maximum 25 percent encroachment into the MHPA is allowed for development. If 25 percent of the site is outside the MHPA development could be restricted to this area. In addition, development is required to be located in the least biologically sensitive area feasible. Should more than 25 percent encroachment be desired, an MHPA boundary line adjustment may be proposed. The City's MSCP Subarea Plan states that adjustments to the MHPA boundary line are permitted without the need to amend the City's Subarea Plan, provided the boundary adjustment results in an area of equivalent or higher biological value. To meet this standard, the area(s) proposed for addition to the MHPA must meet the six functional equivalency criteria set forth in Section 5.4.2 of the Final MSCP Plan (City 1998). All MHPA boundary line adjustments require City discretionary approval and Wildlife Agencies approval.

In addition, in some cases at the community plan level or during a subsequent specific project review, some areas of the MHPA that were placed over legal development in 1997 may be able to obtain a ministerial MHPA boundary line correction which is reviewed by City and Wildlife Agencies. Approved exhibits showing the pre-existing legal development is usually required to be obtained and provided to the reviewers.

For parcels located outside the MHPA, "there is no limit on the encroachment into sensitive biological resources, with the exception of wetlands, and listed non-covered species' habitat (which are regulated by State and federal agencies) and narrow endemic species." However, "impacts to sensitive biological resources must be assessed and mitigation, where necessary, must be provided in conformance" with the City's ESL Ordinance as implemented through compliance with the City's Biology Guidelines (City 2012).

4.3.2.3 Applicable Multiple Species Conservation Program Subarea Plan Policies, Guidelines, Directives and Objectives

MSCP Subarea Plan compliance is required by projects in and adjacent to the MHPA. MHPA compliance is considered a regulatory requirement with associated indirect impacts averted via the required compliance. Standard compliance measures are therefore included as discretionary permit requirements rather than in the CEQA Mitigation Monitoring and Reporting Plan and as project features

for ministerial projects. Depending on the circumstances, some covered species specific requirements (i.e., required conditions of coverage found in Appendix A of the MSCP Subarea Plan) may, however, be required to be included as CEQA mitigation measures.

Multiple Species Conservation Program Section 1.4

According to Section 1.4.1 of the City's MSCP Subarea Plan (1997a), the following land uses are considered conditionally compatible with the biological objectives of the MSCP and, thus, will be allowed within the MHPA: passive recreation, utility lines and roads in compliance with policies in Section 1.4.2, limited water facilities and other essential public facilities, limited low-density residential uses, brush management (zone 2), and limited agriculture.

Section 1.4.2 lists general planning policies and design guidelines that should be applied in the review and approval of development projects within or adjacent to the MHPA. The following guidelines may be applicable to the KMCPU area:

Roads and Utilities–Construction and Maintenance Policies

1. All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way, and disturbed areas, minimizing habitat fragmentation.

2. All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP Covered species, and wetlands. If avoidance is infeasible, mitigation will be required.

3. Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.

4. Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage. Environmental documents and mitigation monitoring and reporting programs covering such development must clearly specify how this will be achieved, and construction plans must contain all the pertinent information and be readily available to crews in the field. Training of construction crews and field workers must be conducted to ensure that all conditions are met. A responsible party must be specified.

5. Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.

6. Development of roads in canyon bottoms should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road must be designed to cross the shortest

length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully-functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable. Fencing, grading, and plant cover should be provided where needed to protect and shield animals, and guide them away from roads to appropriate crossings.

7. Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.

8. For the most part, existing roads and utility lines are considered a compatible use within the MHPA and, therefore, will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management Section 1.5.

Fencing, Lighting, and Signage

1. Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the MHPA (e.g., use of chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats [e.g., vernal pools]).

2. Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low sodium or similar lighting. Signage will be limited to access and litter control and educational purposes.

3. Signage will be limited to access and litter control and educational purposes.

Materials Storage

1. Prohibit storage of materials (e.g., hazardous or toxic, chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, especially due to potential leakage.

Flood Control

1. Flood control should generally be limited to existing agreements with resource agencies unless demonstrated to be needed based on a cost benefit analysis and pursuant to a restoration plan. Floodplains within the MHPA, and upstream from the MHPA if feasible, should remain in a natural condition and configuration in order to allow for the ecological, geological, hydrological, and other natural processes to remain or be restored.

2. No berming, channelization, or man-made constraints or barriers to creek, tributary, or river flows should be allowed in any floodplain within the MHPA unless reviewed by all appropriate agencies, and adequately mitigated. Review must include impacts to upstream and downstream habitats, flood flow volumes, velocities and configurations, water availability, and changes to the water table level.

3. No riprap, concrete, or other unnatural material shall be used to stabilize river, creek, tributary, and channel banks within the MHPA. River, stream, and channel banks shall be natural, and stabilized where necessary with willows and other appropriate native plantings. Rock gabions may be used where necessary to dissipate flows and should incorporate design features to ensure wildlife movement.

Multi-Habitat Planning Area Land Use Adjacency Guidelines

Section 1.4.3 of the MSCP SAP addresses land uses planned or existing adjacent to the MHPA (MHPA Land Use Adjacency Guidelines) including single and multiple family residential, active recreation, commercial, industrial, agricultural, landfills, and extractive uses. Per this section, land uses adjacent to the MHPA must be managed to ensure minimal impacts to the MHPA. Good planning principles in relation to adjacent land uses as described below are required in these areas. The following MHPA Land Use Adjacency Guidelines are guidelines that must be addressed, on a project-by-project basis, during either the planning (new development) or management (new and existing development) stages to minimize impacts and maintain the function of the MHPA. Implementation of these guidelines is addressed further in Section 1.5, Framework Management Plan which is further described below. These issues will be identified and addressed through the CEQA process for subsequent specific projects within the KMCPU area:

MHPA Land Use Adjacency Guidelines to be applied to applicable projects are as follows:

Drainage

1. All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA. This can be accomplished using a variety of methods including natural detention basins, grass swales, or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.

Toxics

2. Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, or that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures should include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance should be provided. Where applicable, this requirement should be incorporated into leases on publicly owned property as leases come up for renewal.

Lighting

3. Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant

materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.

Noise

4. Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.

Barriers

5. New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.

Invasives

6. No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.

Brush Management

7. New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zone 2 may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. Brush management zones will not be greater in size that is currently required by the City's Municipal Code regulations.

   The amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards (i.e., to avoid the nesting season and preferentially remove non-natives over natives) and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the Zone 2 area will be the responsibility of a homeowners association or other private party.

Grading/Land Development

8. Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.

Section 1.5

The MSCP Subarea Plan Framework Management Plan, included in Section 1.5.1 of the City's MSCP Subarea Plan, sets management goals and objectives that apply to the KMCPU area. Compliance with this section is to achieve the overarching MSCP goal to maintain and enhance biological diversity in the

region and conserve viable populations of endangered, threatened, and key sensitive species and their habitats, thereby preventing local extirpation and ultimate extinction, and minimizing the need for future listings, while enabling economic growth in the region.

In order to assure that the goals of the MHPA is attained and fulfilled, management objectives for the MHPA are as follows:

1. To ensure the long-term viability and sustainability of native ecosystem function and natural processes throughout the MHPA.

2. To protect the existing and restored biological resources from intense or disturbing activities within and adjacent to the MHPA while accommodating compatible public recreational uses.

3. To enhance and restore, where feasible, the full range of native plant associations in strategic locations and functional wildlife connections to adjoining habitat in order to provide viable wildlife and sensitive species habitat.

4. To facilitate monitoring of selected target species, habitats, and linkages in order to ensure long-term persistence of viable populations of priority plant and animal species and to ensure functional habitats and linkages.

5. To provide for flexible management of the preserve that can adapt to changing circumstances to achieve the above objectives.

In order to support the objectives, Section 1.5.2 provides general management directives that apply throughout the Subarea Plan area that are therefore applicable to the KMCPU area as follows:

Mitigation

Mitigation, when required as part of project approvals, shall be performed in accordance with the City's ESL Regulations and Biology Guidelines.

Restoration

Restoration or revegetation undertaken in the MHPA shall be performed in a manner acceptable to the City. Where covered species status identifies the need for reintroduction and/or increasing the population, the covered species will be included in restoration/revegetation plans, as appropriate. Restoration or revegetation proposals will be required to prepare a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring and success criteria, and remediation and contingency measures. Wetland restoration/revegetation proposals are subject to permit authorization by federal and state agencies.

Public Access, Trails, and Recreation

Priority 1:

1. Provide sufficient signage to clearly identify public access to the MHPA. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. Use appropriate type of barrier based on location, setting and use. For example, use chain link or cattle wire to direct wildlife movement, and natural rocks/boulders or split rail fencing to direct

public access away from sensitive areas. Lands acquired through mitigation may preclude public access in order to satisfy mitigation requirements.

2. Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of urban land uses adjacent to the MHPA or the seam between land uses (e.g., agriculture/habitat), and follow existing dirt roads as much as possible rather than entering habitat or wildlife movement areas. Avoid locating trails between two different habitat types (ecotones) for longer than necessary due to the typically heightened resource sensitivity in those locations.

3. In general, avoid paving trails unless management and monitoring evidence shows otherwise. Clearly demarcate and monitor trails for degradation and off-trail access and use. Provide trail repair/maintenance, as needed. Undertake measures to counter the effects of trail erosion including the use of stone or wood crossjoints, edge plantings of native grasses, and mulching of the trail.

4. Minimize trail widths to reduce impacts to critical resources. For the most part, do not locate trails wider than four feet in core areas or wildlife corridors. Exceptions are in the San Pasqual Valley where other agreements have been made, in Mission Trails Regional Park, where appropriate, and in other areas where necessary to safely accommodate multiple uses or disabled access. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.

5. Refers to Equestrian trails so not included. Limit the extent and location of equestrian trails to the less sensitive areas of the MHPA. Locate staging areas for equestrian uses at a sufficient distance (e.g., 300-500 feet) from areas with riparian and coastal sage scrub habitats to ensure that the biological values are not impaired.

6. Off-road or cross-country vehicle activity is an incompatible use in the MHPA, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical, or allow to regenerate.

7. Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, in order to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted, restrain pets on leashes.

8. Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.

9. Refers to Equestrian trails so not included.

Litter/Trash and Materials Storage

Priority 1:

1. Remove litter and trash on a regular basis. Post signage to prevent and report littering in trail and road access areas. Provide and maintain trash cans and bins at trail access points.

2. Impose penalties for littering and dumping. Fines should be sufficient to prevent recurrence and also cover reimbursement of costs to remove and dispose of debris, restore the area if needed, and to pay for enforcement staff time.

3. Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.

4. Keep wildlife corridor undercrossings free of debris, trash, homeless encampments, and all other obstructions to wildlife movement.

Priority 2:

1. Evaluate areas where dumping recurs for the need for barriers. Provide additional monitoring as needed (possibly by local and recreational groups on a "Neighborhood Watch" type program) and/or enforcement.

Adjacency Management Issues

The following management directives are in addition to those outlined in Section 1.4.3, and refer more specifically to management and monitoring requirements.

Priority 1:

1. Enforce, prevent, and remove illegal intrusions into the MHPA (e.g., orchards, decks, etc.) on an annual basis, in addition to complaint basis.

2. Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction, or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues.

3. Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.

Invasive Exotics Control and Removal

Priority 1:

1. Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, as well as on prevention methods, to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.

2. Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available. If possible, it is recommended that removal begin upstream and/or upwind and move downstream/downwind to control reinvasion. Priorities for removal should be based on invasive species' biology (time of

flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell's vireo. Avoid removal activities during the reproductive seasons of sensitive species and avoid/ minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment and any other potentially harmful or impact-causing methodologies to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.

Priority 2:

1. If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal. Utilize trained volunteers to monitor and remove exotic species as part of a neighborhood, community, school, or other organization's activities program (such as Friends of Peñasquitos Preserve has done). If done on a volunteer basis, prepare and provide information on methods and timing of removal to staff and the public if requested. For giant reed removal, the Riverside County multi-jurisdictional management effort and experience should be investigated, and relevant techniques used. Similarly, tamarisk removal should use the Nature Conservancy's experience in the Southern California desert regions, while artichoke thistle removal should reference the Nature Conservancy's experience in Irvine. Other relevant knowledge and experience is available from the California Exotic Pest Plant Council and the Friends of Los Peñasquitos Canyon Preserve.

2. Conduct an assessment of the need for cowbird trapping in each area of the MHPA where cattle, horses, or other animals are kept, as recommended by the habitat management technical committee in coordination with the wildlife agencies.

3. If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.

4. On a case by case basis some limited trapping of non-native predators may be necessary at strategic locations, and where determined feasible to protect ground and shrub-nesting birds, lizards, and other sensitive species from excessive predation. This management directive may be considered a Priority 1 if necessary to meet the conditions for species coverage. If implemented, the program would only be on a temporary basis and where a significant problem has been identified and therefore needed to maintain balance of wildlife in the MHPA. The program would be operated in a humane manner, providing adequate shade and water, and checking all traps twice daily. A domestic animals release component would be incorporated into the program. Provide signage at access points and noticing of adjacent residents to inform people that trapping occurs, and how to retrieve and contain their pets.

Flood Control

The following management directives are in addition to the general planning policies and guidelines outlined in Section 1.4.2.

Priority 1:

1. Perform standard maintenance, such as clearing and dredging of existing flood channels, during the non-breeding or nesting season of sensitive bird or wildlife species utilizing the riparian habitat. For the least Bell's vireo, the non-breeding season generally includes mid-September through mid-March.

Priority 2:

1. Review existing flood control channels within the MHPA periodically (every 5 to 10 years) to determine the need for their retention and maintenance, and to assess alternatives, such as restoration of natural rivers and floodplains.

Multiple Species Conservation Program Subarea Plan-Urban Area

Within the MSCP Subarea Plan, the KMCPU area is identified respectively within Section 1.2.3 and 1.5.7 as being in an "Urban Area" and as containing "Urban Habitat Lands". The urban habitat areas within the City's MHPA consist mainly of vernal pool areas, urbanized canyons and stream areas, and associated hillsides which support native habitats and species and promote wildlife movement.

Section 1.5.7 also discusses Overall Management Policies and Directives for Urban Habitats as follows:

1. Where MHPA is incorporated as part of natural resource park, the City Park and Recreation Department shall govern management of those lands in accordance with a Natural Resource Management Plan (NRMP). Current NRMPs in the Urban Lands include: Mariam Bear NRMP, Mission Bay Park NRMP, First San Diego River Improvements Project, and the Los Peñasquitos Canyon Preserve NRMP.

2. All urban lands that are designated as MHPA shall be managed according to the Subarea Plan general policies and directives.

3. Special needs or issues within the Urban Habitat MHPA shall be addressed and resolved by the corresponding MHPA Preserve Managers according to an adaptive management strategy and in coordination with the MHPA management committee.

Future development within areas identified as Urban Habitats, including the KMCPU area, is required to support the overall goals and objectives for urban habitat lands as follows:

> The optimum future condition for the urban habitat lands scattered throughout the City of San Diego is as a system of canyons that provide habitat for native species remaining in urban areas; i.e., as "stepping stones" for migrating birds and those establishing new territories and providing environmental educational opportunities for urban dwellers of all ages. The system of urban habitat canyons and natural open space throughout the City provides important areas for people to enjoy and learn about the natural world and local environment. These areas also afford visual beauty and psychological relief from urbanization, while supporting habitat for the maintenance of both common and rare species. These habitats; surrounded by development and modified by urban edge effects; also present unique opportunities for research into habitat fragmentation, viability, and urban wildlife ecology.

Covered species found in the urban habitat lands include those known to be in the KMCPU area or those having a high to moderate potential to be found in the KMCPU area are presented in Tables 2 and 3. Species known to be in the KMCPU area are indicated with **, and species with a high to moderate potential to occur in the KMCPU area are indicated with *. Covered plant species include: California Orcutt grass, Orcutt's brodiaea, San Diego barrel cactus*, San Diego button-celery**, San Diego goldenstar, San Diego goldenstar, San Diego mesa mint**, short-leaved dudleya, snake cholla, spreading navarretia**, wart-stemmed ceanothus**, and willowy monardella. Covered wildlife species include: Belding's savannah sparrow, Belding's savannah sparrow, California gnatcatcher**, California least tern, coastal cactus wren*, Least Bell's vireo, light-footed clapper rail, mule deer, orange-throated whiptail*, Riverside fairy shrimp, San Diego fairy shrimp**, and western snowy plover.

Major issues to be addressed in Urban Areas (pursuant to the MSCP Subarea Plan Section 1.5.7) and to be supported by polices for the KMCPU area include the following:

- Intense land uses and activities adjacent to and in MSCP Covered Species habitat
- Dumping, litter, and vandalism;
- Itinerant living quarters;
- Utility, facility and road repair, construction, and maintenance activities;
- Exotic (non-native), invasive plants and animals; and
- Urban runoff and water quality.

4.3.3 Vernal Pool Habitat Conservation Plan

In October 2017, the City completed the VPHCP (City 2017) and the Plan was adopted in January 2018. The VPHCP is a comprehensive plan to provide conservation of vernal pool habitats and seven sensitive species that do not have coverage under the City's MSCP Subarea Plan. The VPHCP encompasses the entire City and MSCP Subarea Plan coverage area of approximately 206,124 acres and includes some lands owned by the City that are within unincorporated San Diego County (i.e., Cornerstone Lands which include water supply areas for the City). Some lands within the City limits not under City jurisdiction (e.g., school districts, water districts, federal and state lands, etc.) are not automatically covered by the VPHCP; however, those landowners can seek coverage under the VPHCP through a Certificate of Inclusion.

In addition to authorizing take of sensitive vernal pool species, the VPHCP serves to expand the City's MHPA (see Section 4.1.2 below), with focus on management and conservation of vernal pool habitats and their associated species, particularly the covered species of the VPHCP. The VPHCP is comprised of three Planning Units (PUs); north, central, and south. The KMCPU area is located within the central PU of the VPHCP. Resources described in the VPHCP that occur within the KMCPU area are discussed in this BRR under Section 3.3 and presented on Figures 6 and 7.

The seven species covered under the VPHCP include five plants and two animals, as listed below. The KMCPU area has the potential to support four of the seven covered VPHCP species. Species known to be in the KMCPU area are indicated with **, and species with a high to moderate potential to occur in the KMCPU area are indicated with * as follows:

- Otay Mesa mint (*Pogogyne nudiuscula*); FE and SE
- San Diego mesa mint (*Pogogyne abramsii*); FE and SE**
- Spreading navarretia (*Navarretia fossalis*); FT**

- San Diego button-celery (*Eryngium aristulatum* var. *Parishii*); FE and SE**
- California Orcutt grass (*Orcuttia californica*); FE and SE*
- Riverside fairy shrimp (*Streptocephalus woottoni*); FE
- San Diego fairy shrimp (*Branchinecta sandiegonensis*); FE**

The VPHCP identifies four covered projects and three planned projects, none of which are located within the KMCPU area. Any future proposed development not included as one of the four covered projects or three planned projects, and actions not included in the list of covered activities (i.e., land use and public infrastructure and conservation activities) are required to undergo project specific analyses (including applicable public environmental review) to identify vernal pool resources and evaluate impacts and provide any required avoidance/mitigation relative to the provisions of the VPHCP. A list of covered activities and the allowable conditions within the VPHCP are described in Section 4 of the VPHCP. If a future proposed project is determined by the City to be consistent with the requirements of the VPHCP, the project could be authorized to impact vernal pools and covered species through the City's VPHCP ITP.

Regardless of impact authorization, the VPHCP first requires all feasible impacts to be avoided and/or minimized to limit any impact to vernal pools and their associated species. Such measures include, but are not limited to redesigning a project to avoid resources; performing pre-construction biological surveying; translocating soils, propagules, and/or species; conducting biological monitoring throughout project construction; conducting contractor environmental awareness training; directing project run-off away from vernal pools; installing temporary construction fencing to protect off-site vernal pools; installing artificial watering to control/eliminate fugitive dust; conducting seasonally timed grading operations; top soil salvaging; installing permanent protective fencing; and conducting other typical general construction BMPs.

4.3.4 General Plan

The City's General Plan presents goals and policies for biological resources in the Conservation Element (City 2008). Relevant excerpts from this element are included in Table 4. The KMCPU will incorporate the City's current General Plan Conservation Element policies and goals (which cover biological resource and were updated with the adoption of the VPHCP in 2018).

Table 4
CITY OF SAN DIEGO GENERAL PLAN CONSERVATION ELEMENT POLICIES
RELATING TO BIOLOGICAL RESOURCES

Policy	Description
CE-B.1	Protect and conserve the landforms, canyon lands, and open spaces that: define the City's urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetlands habitats; provide buffers within and between communities; or provide outdoor recreational opportunities. a. Utilize Environmental Growth Funds and pursue additional funding for the acquisition and management of MHPA and other important community open space lands, and implementation of the VPHCP. b. Support the preservation of rural lands and open spaces throughout the region. c. Protect urban canyons and other important community open spaces including those that have been designated in community plans for the many benefits they offer locally, and regionally as part of a collective citywide open space system (see also Recreation Element, Sections C and F; Urban Design Element, Section A). d. Minimize or avoid impacts to canyons and other environmentally sensitive land by relocating sewer infrastructure out of these areas where possible, minimizing construction of new sewer access roads into these areas, and redirecting sewage discharge away from canyons and other environmentally sensitive lands. e. Encourage the removal of invasive plant species and the planting of native plants near open space preserves. f. Pursue formal dedication of existing and future open space areas throughout the City, especially in core biological resource areas of the City's adopted MSCP Subarea Plan and VPHCP. g. Require sensitive design, construction, relocation, and maintenance of trails to optimize public access and resource conservation.
CE-B.2	Apply the appropriate zoning and ESL regulations to limit development of floodplains and sensitive biological areas including wetlands, steep hillsides, canyons, and coastal lands. a. Manage watersheds and regulate floodplains to reduce disruption of natural systems, including the flow of sand to the beaches. Where possible and practical, restore water filtration, flood and erosion control, biodiversity, and sand replenishment benefits. b. Limit grading and alterations of steep hillsides, cliffs, and shoreline to prevent increased erosion and landform impacts.
CE-B.4	Limit and control runoff, sedimentation, and erosion both during and after construction activity.
CE-C.1	Protect, preserve, restore, and enhance important coastal wetlands and habitat (tide pools, lagoons, and marine canyons) for conservation, research, and limited recreational purposes.
CE-C.2	Control sedimentation entering coastal lagoons and waters from upstream urbanization using a watershed management approach that is integrated into local community and land use plans (see also Land Use Element, Policy LU-E-1).
CE-C.3	Minimize alterations of cliffs and shorelines to limit downstream erosion and to ensure that sand flow naturally replenishes beaches.
CE-C.4	Manage wetland areas as described in Section H, Wetlands, for natural flood control and preservation of landforms.
CE-C.6	Implement watershed management practices designed to reduce runoff and improve the quality of runoff discharged into coastal waters.

Table 4 (cont.)
CITY OF SAN DIEGO GENERAL PLAN CONSERVATION ELEMENT POLICIES
RELATING TO BIOLOGICAL RESOURCES

Policy	Description
CE-D.3	Continue to participate in the development and implementation of watershed management plans. a. Control water discharge in a manner that does not reduce reasonable use by others, damage important native habitats and historic resources, or create hazardous conditions (e.g., erosion, sedimentation, flooding and subsidence). b. Improve and maintain drinking water quality and urban runoff water quality through implementation of Source Water Protection Guidelines for New Development. c. Improve and maintain urban runoff water quality through implementation of storm water protection measures (see also Urban Runoff Management, Section E).
CE-D.4	Continue to develop and implement public education programs. a. Involve the public in addressing runoff problems associated with development and raising awareness of how an individual's activities contribute to runoff pollution. b. Work with local businesses and developers to provide information and incentives for the implementation of Best Management Practices (BMPs) for pollution prevention and control. c. Implement watershed awareness and water quality educational programs for City staff, community planning groups, the general public, and other appropriate groups.
CE-E.2	Apply water quality protection measures to land development projects early in the process–during project design, permitting, construction, and operations–in order to minimize the quantity of runoff generated on site, the disruption of natural water flows and the contamination of storm water runoff. a. Increase on-site infiltration, and preserve, restore, or incorporate natural drainage systems into site design. b. Direct concentrated drainage flows away from the MHPA and open space areas. If not possible, drainage should be directed into sedimentation basins, grassy swales, or mechanical trapping devices prior to draining into the MHPA or open space areas. c. Reduce the amount of impervious surfaces through selection of materials, site planning, and street design where possible. d. Increase the use of vegetation in drainage design. e. Maintain landscape design standards that minimize the use of pesticides and herbicides. f. Avoid development of areas particularly susceptible to erosion and sediment loss (e.g., steep slopes) and, where impacts are unavoidable, enforce regulations that minimize their impacts. g. Apply land use, site development, and zoning regulations that limit impacts on, and protect the natural integrity of topography, drainage systems, and water bodies. h. Enforce maintenance requirements in development permit condition.
CE-E.3	Require contractors to comply with accepted storm water pollution prevention planning practices for all projects. a. Minimize the amount of graded land surface exposed to erosion and enforce erosion control ordinances. b. Continue routine inspection practices to check for proper erosion control methods and housekeeping practices during construction.
CE-E.4	Continue to participate in the development and implementation of Watershed Management Plans for water quality and habitat protection.

Table 4 (cont.)
CITY OF SAN DIEGO GENERAL PLAN CONSERVATION ELEMENT POLICIES
RELATING TO BIOLOGICAL RESOURCES

Policy	Description
CE-E.5	Assure that City departments continue to use "Best Practice" procedures so that water quality objectives are routinely implemented. a. Incorporate water quality objectives into existing regular safety inspections. b. Follow BMPs and hold training sessions to ensure that employees are familiar with those practices. c. Educate City employees on sources and impacts of pollutants on urban runoff and actions that can be taken to reduce these sources. d. Ensure that contractors used by the City are aware of and implement urban runoff control programs. e. Serve as an example to the community-at-large.
CE-E.6	Continue to encourage "Pollution Control" measures to promote the proper collection and disposal of pollutants at the source, rather than allowing them to enter the storm drain system. a. Promote the provision of used oil recycling and/or hazardous waste recycling facilities and drop-off locations. b. Review plans for new development and redevelopment for connections to the storm drain system. c. Follow up on complaints of illegal discharges and accidental spills to storm drains, waterways, and canyons.
CE-E.7	Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.
CE-G.1	Preserve natural habitats pursuant to the MSCP and VPHCP, preserve rare plants and animals to the maximum extent practicable, and manage all City-owned native habitats to ensure their long-term biological viability. a. Educate the public about the impacts invasive plant species have on open space. b. Remove, avoid, or discourage the planting of invasive plant species. c. Pursue funding for removal of established populations of invasive species within the MHPA, VPHCP, and open space.
CE-G.2	Prioritize, fund, acquire, and manage the MHPA, VPHCP, and open spaces that preserve important ecological resources and provide habitat connectivity.
CE-G.3	Implement the conservation goals/policies of the City's MSCP Subarea Plan and VPHCP, such as providing connectivity between habitats and limiting recreational access and use to appropriate areas.
CE-G.4	Protect important ecological resources when applying floodplain regulations and development guidelines.
CE-G.5	Promote aquatic biodiversity and habitat recovery by reducing hydrological alterations, such as grading a stream channel.
CE-H.1	Use a watershed planning approach to preserve and enhance wetlands.
CE-H.2	Facilitate public-private partnerships that improve private, federal, state and local coordination through removal of jurisdictional barriers that limit effective wetland management.
CE-H.3	Seek state and federal legislation and funding that support efforts to research, classify, and map wetlands including vernal pools and their functions, and improve restoration and mitigation procedures.
CE-H.4	Support the long-term monitoring of restoration and mitigation efforts to track and evaluate changes in wetland acreage, functions, and values.
CE-H.5	Support research and demonstration projects that use created wetlands to help cleanse urban and storm water runoff, where not detrimental to natural upland and wetland habitats.

Table 4 (cont.)
CITY OF SAN DIEGO GENERAL PLAN CONSERVATION ELEMENT POLICIES
RELATING TO BIOLOGICAL RESOURCES

Policy	Description
CE-H.6	Support educational and technical assistance programs for planning and development professionals and the general public on wetlands protection in the land use planning and development process.
CE-H.7	Encourage site planning that maximizes the potential biological, historic, hydrological, and land use benefits of wetlands.
CE-H.8	Implement a "no net loss" approach to wetlands conservation in accordance with all city, state, and federal regulations.
CE-J.1	Develop, nurture, and protect a sustainable urban/community forest.

4.4 KEARNY MESA COMMUNITY PLAN POLICIES

The adopted Kearny Mesa Community Plan presents goals and policies for biological resources in the Conservation Element. Relevant excerpts from this element for the KMCPU area are included in Table 5 below.

Table 5
KEARNY MESA COMMUNITY PLAN POLICIES AND RECOMMENDATIONS
PERTAINING TO BIOLOGICAL RESOURCES

Policies
In order to conserve natural resources, prevent incompatible uses from locating on constrained land.
Sites designated as open space in the community plan shall be preserved with a Covenant of Easements consistent with the City's Land Development Code.
Vernal pool habitat in Kearny Mesa shall be managed in accordance with the VPHCP.
Vernal pool habitat on the General Dynamics property shall be preserved in accordance with the preservation policies prescribed in the New Century Center Master Plan and final Environmental Impact Report (LDR No. 96-0165).
Recommendations
Provide open areas within developments that provide visual relief and temporary respite from the work place.
Maintain the natural drainage system and minimize the use of impervious surfaces. Concentrations of runoff should be adequately controlled to prevent an increase in downstream erosion. Irrigation systems should be properly designed to avoid overwatering.
Retain native vegetation where possible. Graded slopes that are adjacent to natural hillsides and canyons should be revegetated with native or drought-tolerant species to restore pre-development drainage conditions.
Preserve and maintain vernal pools in accordance with the City's VPHCP.
Design projects adjacent to vernal pool habitat to be consistent with VPHCP and City MSCP Subarea Plan Land Use Adjacency Guidelines.
Preserve the mature riparian woodland as open space on the City-owned parcel west of I-l5.

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Appendix A

Explanation of Status Codes for Sensitive Plant and Wildlife Species

Appendix A
Explanation of Status Codes for Plant and Animal Species

FEDERAL AND STATE CODES

U.S. Fish and Wildlife Service (USFWS)

BCC	Bird of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
FC	Federal candidate species
FE	Federally listed endangered
FPD	Federally proposed for delisting
FPE	Federally proposed endangered
FPT	Federally proposed threatened
FT	Federally listed threatened

USFWS Birds of Conservation Concern (BCC)

The primary legal authority for Birds of Conservation Concern (2008) is the Fish and Wildlife Conservation Act of 1980 (FWCA), as amended. Other authorities include the Endangered Species Act, Fish and Wildlife Act (1956) and 16 USC §701. A FWCA 1988 amendment (Public Law 100-653, Title VIII) requires the Secretary of the Interior through the USFWS to "identify species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973." The 2008 BCC report is the most recent effort by the USFWS to carry out this proactive conservation mandate.

The BCC report aims to identify accurately the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent the USFWS' highest conservation priorities and draw attention to species in need of conservation action. The USFWS hopes that by focusing attention on these highest priority species, the report will promote greater study and protection of the habitats and ecological communities upon which these species depend, thereby ensuring the future of healthy avian populations and communities. Birds of Conservation Concern 2008 lists are available online at https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php.

USFWS Federal Candidate (FC) Species

Federal candidate species are those for which the USFWS has on file "sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened, but for which preparation and publication of a proposal is precluded by higher-priority listing actions. [The USFWS] maintain[s] this list for a variety of reasons: to notify the public that these species are facing threats to their survival; to provide advance knowledge of potential listings that could affect decisions of environmental planners and developers; to provide information that may stimulate conservation efforts that will remove or reduce threats to these species; to solicit input from interested parties to help us identify those candidate species that may not require protection under the [Endangered Species Act] or additional species that may require the Act's protections; and to solicit necessary information for setting priorities for preparing listing proposals" (Federal Register 70:90 [May 11, 2005]).

USFWS Federal Proposed Endangered (FPE) Species

Any species the Service has determined is in danger of extinction throughout all or a significant portion of its range and the Service has proposed a draft rule to list as endangered. Proposed endangered species are not protected by the take prohibitions of section 9 of the ESA until the rule to list is finalized. Under section 7(a)(4) of the ESA, federal agencies must confer with the Service if their action will jeopardize the continued existence of a proposed species.

USFWS Federal Proposed Threatened (FPT) Species

Any species the Service has determined is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and the Service has proposed a draft rule to list as threatened. Proposed threatened species are not protected by the take prohibitions of section 9, consistent with any protective regulations finalized under section 4(d) of the ESA, until the rule to list is finalized. Under section 7(a)(4) of the ESA, federal agencies must confer with the Service if their action will jeopardize the continued existence of a proposed species.

California Department of Fish and Wildlife (CDFW)

SCE	State candidate for listing as endangered
SCT	State candidate for listing as threatened
SE	State listed endangered
SR	State listed rare
ST	State listed threatened
SSC	State species of special concern
WL	Watch List
FP	Fully Protected species refers to all vertebrate and invertebrate taxa of concern to the Natural Diversity Data Base regardless of legal or protection status. These species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW.
Special Animal	Refers to all vertebrate and invertebrate taxa of concern to the Natural Diversity Database regardless of legal or protection status.

California Environmental Quality Act (CEQA)

For plants with no current federal or state legal standing, “CEQA” refers to the fact that under the Act, impacts to species may be found significant under certain circumstances (e.g., the species are regionally sensitive and/or are protected by a local policy, ordinance, or habitat conservation plan; or the impact involves interference with certain movements or migrations, with wildlife corridors or with nursery sites).

OTHER CODES AND ABBREVIATIONS

California Native Plant Society California Rare Plant Rank (CRPR) Codes

Lists

1A = Presumed extirpated in California and either rare or extinct elsewhere. Eligible for state listing.

1B = Rare, threatened, or endangered in California and elsewhere. Eligible for state listing.

2A = Presumed extirpated in California but common elsewhere. Eligible for state listing.

2B = Rare, threatened, or endangered in California but more common elsewhere. Eligible for state listing.

3 = Review List: Plants about which more information is needed. Some eligible for state listing.

4 = Watch List: Plants of limited distribution. Needs monitoring for changes in population status. Few (if any) eligible for state listing.

List/Threat Code Extensions

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

.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

A "CA Endemic" entry corresponds to those taxa that only occur in California.

All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no extension. Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.

Multiple Species Conservation Program (MSCP) Covered

Multiple Species Conservation Program covered species for which the County of San Diego and City of San Diego have take authorization within the MSCP subarea and City of San Diego subarea.

MSCP Narrow Endemic

Narrow endemic species are native species that have "restricted geographic distributions, soil affinities, and/or habitats." The MSCP participants' subarea plans have specific conservation measures to ensure impacts to narrow endemics are avoided to the maximum extent practicable.

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