Grantville Focused Plan Amendment
Biological Opportunities and Constraints Analysis

Prepared for:
BRG Consulting, Inc.
304 Ivy Street
San Diego, California 92101

Prepared by:
Rocks Biological Consulting
5101 September Street
San Diego, CA 92110
Ph: (619) 843-6640

Jim Rocks, Principal Biologist

I. Introduction

The City of San Diego (City) is pursuing the Grantville Focused Plan Amendment based on a public meeting process for the Grantville redevelopment effort. The Grantville Stakeholders Committee has selected Alternative D, referred to as "Subarea A", as the CEQA project to be analyzed in the Program level Environmental Impact Report. The project would result in a net increase of approximately 8,275 residential dwelling units and 10,598,600 square feet of non-residential uses.

Biological analyses were originally performed for the larger Grantville Redevelopment area in 2004, and a constraints-level analysis was provided at that time. With the selection of Subarea A, much of the original redevelopment area is no longer part of the project; as such, the 2004 constraints analysis has been revised herein to reflect the selection of Subarea A only.

The purpose of the following sections of this report is to provide a clear and general understanding of the abundance and quality of the biological resources that are present within Subarea A, to inform decisions that may have an impact on biological resources and to identify opportunities for mitigation of impacts that may occur with future projects.

II. Project Location

Subarea A is located in the City of San Diego, California. The approximately 379-acre project area is situated in the eastern portion of the City in the Navajo, Tierrasanta, and College, Community Planning Areas (Figure 1). It includes commercial, industrial and retail uses north of I-8 and along both sides of Fairmount Avenue and Mission Gorge Road up to Zion Avenue. The southeast portion of project area also includes the first seven parcels on the southern side of Adobe Falls Road (starting at Waring Road).

III. Methods

Surveys and most project data collection were conducted in 2004. As this report does not meet the City's 2012 Biology Guideline requirements, subsequent site specific biological analysis (per the City's 2012 Biology Guidelines) will be required for any project-specific development within the study area that have the potential to result in biological impacts (including MHPA land use adjacency impacts). Rocks Biological Consulting (RBC) and BRG Consulting, Inc. began preparations for vegetation mapping and constraints-level site surveys by creating maps in a Geographic Information System (GIS) using existing mapping and relevant data including a color aerial photograph (Landiscor 2004), the City of San Diego's 1995 MSCP Vegetation Mapping and species occurrence data,

Figure 1 Placeholder

Community Plan Land Use maps from the Tierrasanta, College, and Navajo planning areas, the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) information for the U.S. Geological Society 7.5' La Mesa Quadrangle, the San Diego Natural History Museum's San Diego County Plant Atlas overlay (file date 18 December 2013), and U.S. Fish and Wildlife (USFWS) species occurrence information for Subarea A. The San Diego River Park Plan (City of San Diego 2013) was reviewed to help identify opportunities for protection, restoration, and/or enhancement of the San Diego River through City action or for project mitigation.

On August 28 and September 8 and 9, 2004, RBC used the map as a base layer to refine the vegetation maps and conduct constraints-level surveys for biological resources. The primary focus of the survey effort was on the San Diego River and adjacent upland habitats because of the importance and sensitivity of the biological resources in those areas. No focused species surveys or wetland delineations were conducted. Vegetation community classifications follow Holland (1986) and Oberbauer (1996) and plant names follow Simpson and Rebman (2006).

The analysis of potential direct impacts of the proposed project on biological resources and identification of potential opportunities to protect and enhance the habitats along the San Diego River was conducted by using GIS to examine where Community Plan Land Use maps and the vegetation map overlap. For example, a potential impact on sensitive biological resources was identified if the Community Plan Land Use map designation of "Industrial" or "Sand and Gravel" overlaps with an area of sensitive vegetation such as Diegan Coastal Sage Scrub or Riparian Habitat. Similarly, a potential opportunity for creation, restoration, or conservation of biological resources was identified if the Community Plan Land Use map designation of "Open Space" overlaps with areas that are currently disturbed or being used for residential, commercial, or industrial development purposes. Opportunities for conservation also exist where land use zoning could be changed from a potentially impactive use such as Commercial, Residential or Sand and Gravel to Open Space. Potential mitigation measures for impacts on biological resources were derived through guidance from the City of San Diego's MSCP program and consideration of the San Diego River Park Plan.

V. Biological Resources

A. Botanical Resources - Flora

1. Vegetation Communities

A total of 11 vegetation communities/land uses as described by Holland (1986) and/or Oberbauer (1996) have been delineated within Subarea A. Vegetation communities or land uses present within Subarea A include Diegan Coastal Sage Scrub, Disturbed Land, Freshwater Marsh, Giant Reed, Jurisdictional Streambed, Non-Native Grassland, Open Water, Ornamental, Riparian Forest, Southern Riparian Scrub, and Urban/ Developed (Figure 2). Note that project-specific development activities will occur long after the information outlined herein was collected. As such, individual surveys will be needed for project-specific developments in any areas that may support sensitive biological resources. Additionally, pursuant to direction from MSCP reviewer Holly Smit-Kicklighter (personal communication, May 2014), vegetation communities and land uses described herein should be considered general in nature and vegetation community sub-types such as maritime succulent scrub or southern maritime chaparral may occur within larger habitats.

Sensitive Upland Communities

Diegan Coastal Sage Scrub (Holland Code 32500; Tier II habitat type) occurs in very small pockets at periphery of Subarea A, comprising a total of 9.0 acres. This habitat is comprised primarily of low, soft-woody subshrubs of approximately one meter (3 ft) in height, many of which are facultatively drought-deciduous. This association is typically found on dry sites within Subarea A, such as steep, south-facing slopes or clay-rich soils that are slow to release stored water. Dominant shrub species in this vegetation type vary, depending on local site factors and levels of disturbance. Within Subarea A, dominant species in Subarea A include California sagebrush (*Artemisia californica*), California Buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), and Laurel Sumac (*Malosma laurina*). Other, less frequent, constituents of this community include Deerweed (*Lotus scoparius*), Broom Baccharis (*Baccharis sarothroides*), Goldenbush (*Isocoma menziesii* var. *meziesii*), and Lemonadeberry (*Rhus integrifolia*).

Non-native Grassland (Holland Code 42200, Tier IIIB habitat type) occupies approximately 0.3 acres in the southern end of Subarea A adjacent the Farimount Avenue/Interstate 8 interchange. Non-native Grassland generally occurs on fine-textured loam or clay soils which are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. It is characterized by a dense to sparse cover of annual grasses, often with native

Figure 2 Placeholder

and nonnative annual forbs (Holland 1986). This habitat is a disturbance-related community most often found in old fields or openings in native scrub habitats. This association has replaced Native Grassland and Coastal Sage Scrub at many localities throughout southern California.

Wetland Communities

Riparian Forest (Holland Code 61000) occupies approximately 26.0 acres of Subarea A, primarily along the San Diego River. This habitat is an open or closed canopy forest that is generally greater than 6 m (20 ft) high and occupies relatively broad drainages and floodplains supporting perennially wet streams. Within Subarea A, this community is dominated by mature individuals of winter deciduous trees, including Fremont's cottonwood (*Populus fremontii* var. *fremontii*) and several species of willows (*Salix gooddingii*, *S. laevigata*, *S. lasiolepis*), and often has a dense understory of shrubby willows, mulefat (*Baccharis salicifolia*), and mugwort (*Artemisia douglasiana*). The dominant species require moist, bare mineral soil for germination and establishment (Holland 1986). This is provided after flood waters recede, leading to uniform-aged stands.

Southern Riparian Scrub (Holland Code 63300) occupies approximately 1.9 acres of Subarea A. This habitat varies from a dense, broad-leafed, winter-deciduous association dominated by several species of willow to an herbaceous scrub dominated by mulefat. The former association is found on loose, sandy, or fine gravelly alluvium deposited near stream channels during floods, and most stands are too dense to allow much understory to develop (Holland 1986). Typical willow species include black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and sandbar willow (*Salix exigua*) and there is often a large component of Mulefat and/or invasive species such as Giant Reed (*Arundo donax*) and Tamarisk (*Tamarix* spp.). Understory vegetation is typically lacking or composed of nonnative, weedy species. Southern Riparian Scrub may represent a successional stage leading to Riparian Woodland or Forest or they may be stable depending on the frequency and intensity of disturbance.

Freshwater Marsh (Holland Code 52400) occupies approximately 1.4 acres occur in Subarea A. Freshwater Marsh occurs in wetlands that are permanently flooded or saturated with fresh water (Holland 1986). The Freshwater Marsh within Subarea A is dominated by perennial, emergent monocots such as rushes (*Schoenoplectus* spp.) and cattails (*Typha* spp.) and areas of unvegetated, open water. In several ponds near the Friars Road Bridge, the ponds are infested with the invasive species Uruguay Marsh Purslane (*Ludwigia hexapetala*) (J. Rocks personal observation 2004)

Open Water (Oberbauer Code 13140) occupies approximately 11.0 acres within Subarea A. There are large ponds within the San Diego River that reduce water flow velocity of the River and contain water throughout the year. The Open Water areas often support Freshwater Marsh or Southern Riparian Scrub along its margins and in some instances are being invaded by the weedy Uruguay Marsh Purslane.

Non-Native Vegetation/Land Uses

Disturbed Land (Oberbauer Code 11300; Tier IV habitat type) occupies approximately 1.0 acre within Subarea A. Disturbed Land is any land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g., disturbed Diegan Coastal Sage Scrub). Disturbed Land is typically found in vacant lots, roadsides, construction staging areas, or abandoned fields, and is dominated by non-native annual species and perennial broadleaf species. Within Subarea A, most of the Disturbed Land is associated with the sand and gravel mine activities along the San Diego River. These areas have been cleared of vegetation and in some areas weedy, ruderal vegetation is re-colonizing the area. Typical ruderal plant species include Russian-thistle (*Salsola tragus*), Short-pod Mustard (*Hirschfeldia incana*), sweet fennel (*Foeniculum vulgare*), Filaree (*Erodium* spp.), Horseweed (*Conyza* spp.), Tecolote (*Centaurea melitensis*), Garland Daisy (*Chrysanthemum coronarium*), and Castor Bean (*Ricinus communis*), with a lesser percent cover of non-native grasses. Nonnative trees, such as eucalyptus, pepper trees, and Russian olive (*Olea europea*), can also occur in this association.

Giant Reed (*Arundo donax*) occupies approximately 1.6 acres of Subarea A, along a small tributary to the San Diego River. Giant Reed is a robust, perennial grass that can grow from 9 to 30 feet in height and spreads rapidly from horizontal rootstocks in the soil (Bossard, et. al 2000). Giant Reed is a CDFW-listed noxious weed and is listed by the California Invasive Plant Council (Cal-IPC) as a List A-1 "Most Invasive Wildland Pest Plant." Giant Reed is a documented aggressive invader that displaces natives and disrupts natural habitats (Cal-IPC 2004). This species has invaded many areas along the San Diego River and Alvarado Creek, degrading native wetland habitats such as Southern Riparian Scrub and Riparian Forest.

Ornamental (Oberbauer Code 11000) vegetation occupies 8.0 acres of Subarea A and typically consists of non-native landscape and/or garden plantings that have been planted in association with buildings, roads, or other development. San Diego County supports more than 250 different types of ornamental trees

and numerous other shrubs and herbs that decorate urban areas. Because of the abundance and patchy distribution of ornamental plantings within Subarea A, the classification "Urban/Developed" also includes some ornamental plantings.

Urban/Developed (Oberbauer Code 12000; Tier IV habitat type) areas occupy the majority of Subarea A (approximately 343 acres). These areas include commercial, industrial, office/professional, recreational, and residential development and contain plantings of ornamental vegetation as landscaping. Urban/Developed areas support no native vegetation because of the presence of buildings or roads.

2. Plants

Subarea A supports limited native floral diversity throughout much of the area because the majority of Subarea A is Urban/Developed. The Diegan Coastal Sage Scrub within Subarea A is mostly of moderate to low species diversity because many of these patches have been disturbed or degraded to some degree or are adjacent to Disturbed Land or Urban/Developed areas. The areas of highest native species diversity occur within and adjacent to the San Diego River. The Riparian and Freshwater Marsh habitats support a moderate to high level of native species diversity and the Diegan Coastal Sage Scrub that buffers the San Diego River from adjacent Urban/Developed are of higher quality than isolated patches that occur away from the River.

Rare, Threatened, Endangered, Narrow Endemic and/or Sensitive Species or MSCP Covered Species

Regulatory authority over sensitive species listed as threatened or endangered is issued under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). The City of San Diego has several regulations governing biological resources within the City. These include the MSCP Subarea Plan, the Environmentally Sensitive Lands regulations, and the Biology Guidelines. Please see section VI for a full discussion of the regulatory background pertaining to rare species occurring or potentially occurring within Subarea A.

Tables 1 and 2 summarize the Narrow Endemic Species (City of San Diego 1997) and other sensitive flora that are expected or have potential to occur within Subarea A. Narrow endemic species are those with a very restricted habitat and occur only in the San Diego region. Specific protections apply to Narrow Endemic species pursuant to the MSCP. The tables have been created using information from CNDDB records, Rare Plants of San Diego County (Reiser 1994), knowledge of local biological resources, and field surveys. Note that the San Diego Natural History Museum's Plant Atlas database was checked for this effort

(filedate 18 Dec 2013). No narrow endemic or other rare species are reported in or immediately adjacent Subarea A.

Table 1. Potential for Narrow Endemic Plant Species to Occur Within Grantville Subarea A	
Species	**Potential to Occur/Comments**
San Diego Thornmint (*Acanthomintha ilicifolia*)	Low. Minimal native habitat occurs outside the San Diego River MHPA areas; this species occurs on clay lenses in open, upland areas.
Shaw's Agave (*Agave shawii*)	None. Species occurs exclusively on coastal bluffs.
San Diego Ambrosia (*Ambrosia pumila*)	Low to Moderate. Species occurs in disturbed areas, seasonally dry drainages and floodplains and within chaparral, coastal sage scrub and grasslands. Would likely be known if present; species occurs along the San Diego River within Mission Trails Regional Park (CNDDB 2004)
Aphanisma (*Aphanisma blitoides*)	None. Species occurs on coastal bluffs and dunes.
Coastal Dunes Milk Vetch (*Astragalus tener* var. *titi*)	None. Species occurs on coastal dunes.
Encinitas baccharis (*Baccharis vanessae*)	None. Species occurs in southern maritime and southern mixed chaparrals on sandstone soils, typically in north San Diego County.
Short-leave Live-Forever (*Dudleya blochmaniae* ssp *brevifolia*)	None. Soil formation and habitat of species do not occur within Subarea A.
Variegated Dudleya (*Dudleya variegata*)	Low. Habitat is typically openings in coastal sage scrub or grasslands. There is very little suitable habitat for this species within Subarea A.
San Diego Button-Celery (Eryngium aristulatum var. parishii)	None. Vernal pool species; no vernal pool habitat in Subarea A.
Otay Tarplant (*Deinandra conjugens*)	None. Species occurs in grasslands and coastal sage scrub in clay soils in southern San Diego County. Subarea A is outside of this species' geographic range.
Prostrate Navarretia (*Navarretia fossalis*)	None. Vernal pool species; no vernal pool habitat is present in Subarea A.
Snake Cholla (*Opuntia parryi* var. *serpentina*)	None. Species occurs in chaparral and coastal sage scrub in southern San Diego. Subarea A is outside Snake Cholla's geographic range.
Orcutt Grass (*Orcuttia californica*)	None. Vernal pool species; no vernal pool habitat in Subarea A.
San Diego Mesa Mint (*Pogogyne abramsii*)	None. Vernal pool species; no vernal pool habitat in Subarea A.
Otay Mesa Mint (*Pogogyne nudiuscula*)	None. Vernal pool species; no vernal pool habitat in Subarea A.

Table 2. Potential For Non-Narrow Endemic Sensitive Plant Species to Occur Within Subarea A

Common Name	Habitat	ESA Status	CESA Status	CA Rare Plant Rank	MSCP Status	Project Area Potential
California adolphia (*Adolphia californica*)	Chprl, CoScr	None	None	2B.1	Not Covered	Potentially Present
Orcutt's Brodiaea (*Brodiaea orcuttii*)	Chprl, CmWld, Medws, VFGrs, VnPls/clay	None	None	1B.1	Covered	Potentially Present
San Diego Jewel Flower (*Caulanthus heterophyllus* var. *heterophyllus*) [C. stenocarpus]	Chprl, CoScr	None	SR	None	Covered	Potentially Present
Wart-stemmed Ceanothus (*Ceanothus verrucosus*)	Chprl	None	None	2B.2	Covered	Very Low Potential to Occur Due to Lack of Suitable Habitat
Summer Holly (*Comarostaphylis diversifolia*)	Chprl	None	None	1B.2	Not Covered	Very Low Potential to Occur Due to Lack of Suitable Habitat
Western Dichondra (*Dichondra occidentalis*)	Chprl, CoScr	None	None	4.2	Not Covered	Potentially Present
Palmer's Ericameria (*Ericameria palmeri*)	RpWld	None	None	1B.1	Covered	Low Potential to Occur Due to Lack of Suitable Habitat

Common Name	Habitat	ESA Status	CESA Status	CA Rare Plant Rank	MSCP Status	Project Area Potential
Coast Barrel Cactus (*Ferocactus viridescens*)	CoScr, Chprl	None	None	2B.1	Covered	Expected
Graceful Tarplant (*Holocarpha virgata*)	VFGrs	None	None	4.2	Not Covered	Low Potential to Occur Due to Lack of Suitable Habitat
San Diego Marsh Elder (*Iva hayesiana*)	RpWld, intermittent creeks, streambeds	None	None	2B.2	Not Covered	Potentially Present
Southwestern Spiny Rush (*Juncus acutus* ssp. *leopoldi*)	RpMarsh, Medws (Alkali)	None	None	4.2	Not Covered	Potentially Present
Small-flowered Microseris (*Microseris douglasii* ssp. *platycarpha*)	VFGrs/clay	None	None	4.2	Not Covered	Potentially Present
Willowy Monardella (*Monardella viminea*)	RpScr, sandy floodplains	FE	SE	1B.1	Covered	Low Potential Due to Lack of Suitable Habitat
San Diego Goldenstar (*Bloomeria clevelandii*)	Chprl, CoScr (openings)	None	None	1B.1	Covered	Potentially Present
Torrey Pine (*Pinus torreyana* ssp. torreyana)	Chprl, CCFrs	None	None	1B.2	Covered	Not Present as Native
Nuttall's Scrub Oak (*Quercus dumosa*)	Chprl	None	None	1B.1	Not Covered	Low Potential to Occur Due to Lack of Suitable Habitat

Common Name	Habitat	ESA Status	CESA Status	CA Rare Plant Rank	MSCP Status	Project Area Potential
Engelmann Oak (*Quercus engelmannii*)	Chprl, CmWld, RpWld, VFGrs	None	None	4.2	Not Covered	Low Potential to Occur Due to Lack of Suitable Habitat
San Diego Viguiera (*Bahiopsis laciniata*) [*Viguiera laciniata*]	CoScr	None	None	4.2	Not Covered	Potentially Present

Habitat Codes: CCFrs = Closed-cone Conifer Forest, Chprl = Chaparral, CoScr = Coastal Scrub, CmWld = Cismontane Woodland, Medws = Meadows, RpWld = Riparian Woodland, VFGrs = Valley and Foothill Grassland, VnPls = Vernal Pools

FE = Federally Endangered, **FT** = Federally Threatened, **SE** = California ESA, **SR** = State Rare, Endangered.

California Rare Plant Rank: List 1B - Plants rare, threatened, or endangered in California or Elsewhere; List 2A - Plants presumed extripated in California, but more common elsewhere; List 2B - Plants rare, threatened, or endangered in California, but more common elsewhere; List 3 - Plants about which more information is needed; List 4 – Plants of limited distribution – a watch list.

- 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3-Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

3. Zoological Resources – Fauna

Wildlife Habitats

Wildlife habitat refers to the land and water that provide the food, shelter and opportunities for reproduction that wild animals need to survive. In general, the abundance of each species is determined by the availability of habitats supplying these vital needs as well as by its adaptability to changing environmental conditions. Typically, the more varied the physical and biological factors are within a discrete landscape, the more diverse the plant and animal communities are. The following section summarizes the characteristics of the vegetation communities within Subarea A and lists some of the common or sensitive wildlife species that often use these habitats.

Diegan Coastal Sage Scrub

Within Subarea A, this low-growing, drought-tolerant vegetation community is likely to support several locally common species of birds, mammals, reptiles, and butterflies as well as sensitive wildlife species. Diegan Coastal Sage Scrub provides forage, shelter, and nesting opportunities for bird species such as Coastal California Gnatcatcher, California Towhee, Spotted Towhee, Wrentit, Lesser Goldfinch, House Finch, Anna's Hummingbird, Bushtit, Western Scrub Jay, Spotted Towhee, California Quail, California Thrasher and Mourning Dove. Mammals such as Coyote, Bobcat, California Ground Squirrel, Audubon's Cottontail, and Deer Mice all use Diegan Coastal Sage Scrub for shelter and foraging. Reptiles such as Western Fence Lizard, Side-blotch Lizard, Alligator Lizard, Orangethroat Whiptail, California Striped Racer, Gopher Snake and California Kingsnake use rock crevices for shelter and forage in the leaf litter for insects and larvae. Butterfly species such as Behr's Metalmark, Acmon Blue, Funereal Duskywing, and Painted and West Coast Ladies will nectar on flowering plants as adults and lay eggs on specific host plants for eventual hatching and larval development.

The Diegan Coastal Sage Scrub within Subarea A generally occurs only in very small patches and would not be anticipated to support a diverse collection of wildlife species. The exception is the small area in the southeast portion of Subarea A that is connected to a larger area of undeveloped habitat. This area has the potential to support the federally listed threatened and MSCP covered Coastal California Gnatcatcher, a sage scrub obligate species.

Riparian Habitat

Riparian habitat refers to the trees, other vegetation and physical features normally found on the banks and floodplains of rivers, streams, and other bodies of freshwater (CDFW 2003). Riparian habitat occupies a small amount of total land area, but supports a disproportionately large number of fish and wildlife species. Several locally common wildlife species are expected to use the riparian areas along the San Diego River. Bird species such as Common Yellowthroat, Yellow Warbler, Yellow Breasted Chat, Wilson's Warbler, the federally-listed endangered Least Bell's Vireo, and numerous other migrant and winter visitors use riparian trees for breeding and foraging. Mammals such as Coyote, Raccoon, Bobcat, Western Spotted Skunk, and Long-tailed Weasel use riparian habitats for cover and foraging. Amphibians such as the Western Toad, Pacific Chorus Frog, Garden Slender Salamander, and Arboreal Salamander use ponded water within riparian habitat for breeding and riparian vegetation for cover and foraging. Reptiles such as the Red Diamondback Rattlesnake and Western Rattlesnake use riparian vegetation for cover and foraging. Butterfly species such Western Tiger Swallowtail, California Sister, Lorquin's Admiral, and

Mourning Cloak are typically found within riparian habitats looking for nectar sources or to lay eggs on specific host plants.

The Riparian Habitat within Subarea A has been disturbed and reduced in size from its historic extent because of residential, commercial, and industrial development and alteration of its hydrologic regime. However, extensive, high quality Riparian Habitat exists along many stretches of the San Diego River within Subarea A. Within the City of San Diego, Riparian Habitat of the River extends from Mission Bay Park near the Pacific Ocean to Mission Trails Regional Park and provides a regional habitat linkage between these two City parks.

Freshwater Marsh

Freshwater Marshes are among the most productive wildlife habitats. They provide food, cover, and water for more than 160 species of birds (U.S. Comptroller General 1979), and numerous mammals, reptiles, and amphibians. Many species rely on Freshwater Marsh for their entire life cycle. Many of the species listed as occurring in riparian habitats are likely to use Freshwater Marshes in some capacity for foraging, cover, or breeding. There are large areas of Freshwater Marsh and open water in the San Diego River because of alteration of landform and hydrologic regime that has created large ponds within the River's channel.

Non-Native Vegetation

The Non-native Grassland, Eucalyptus Woodland, and Disturbed Land within Subarea A provide some biological value to native wildlife species, but the value is far below that of native vegetation communities. Non-native Grassland provides foraging opportunities for raptors such as Red-tailed Hawk, Red-shouldered Hawk, and Owl species because it is an open, low growing community that typically supports an abundance of small mammals such as Deer Mice, Gophers, and Rats. Locally common species of birds and butterflies will also use Non-native Grassland and Disturbed Land for foraging and cover. These areas tend to be limited in the number and abundance of different species they can support because of the limited number of native plant species and these areas tend to be fragmented to some degree and not connected to large native habitat areas. Eucalyptus Woodlands provide value to wildlife species because of the availability of nest sights in dense, tall stands of Eucalyptus. Raptors and numerous other nest building birds and cavity nesters will use Eucalyptus to breed and nurture fledglings.

The abundance of Urban/Developed areas within Subarea A has eliminated habitat connectivity and fragmented habitats to a great degree. This results in a reduction in the diversity and abundance of wildlife species in Subarea A. However, the San Diego River riparian habitats are still areas of relatively high

species diversity and abundance and provide a regional wildlife corridor for travel by species from Mission Trails Regional Park to Mission Bay Park. These habitats and linkages are crucial for wildlife species survival and reproduction within Subarea A and the surrounding region.

Rare, Threatened, Endangered, Narrow Endemic and/or Sensitive Species or MSCP Covered Species

Table 3 summarizes the sensitive fauna expected or with potential to occur within Subarea A. The tables have been created using information from CNDDB records, knowledge of local biological resources, the San Diego Bird Atlas, and field surveys.

Table 3. Sensitive Animal Species Expected or With A Potential to Occur in Subarea A

Common Name	Habitat	ESA Status	CESA Status	MSCP Status	Project Area
Quino Checkerspot Butterfly	Open Grassland and openings in Coastal Scrub and Chaparral that support Dot-seed Plantain (*Plantago erecta*)	FE	SA	Not Covered	No Potential to Occur Due to Lack of Suitable Habitat. Historic Occurrences in Project Area Extirpated. Not Reported since 1960 (USFWS 2004).
Hermes Copper	Openings in Chaparral, associated with the larval host plant Spiny Redberry (*Rhamnus crocea*), adults feed on nectar from California Buckwheat	FSC	SA	Not Covered	Low Potential to Occur Due to Lack of Suitable Habitat. Known from Mission Trails Regional Park

Common Name	Habitat	ESA Status	CESA Status	MSCP Status	Project Area
Western Spadefoot Toad	Sandy or gravelly soil inlands, Coastal scrub, open Chaparral, and pine-oak woodlands. Openings with shallow, temporary pools are optimal	FSC	CSC Protected	Not Covered	Potentially Present
Southwestern Pond Turtle	Quiet, permanent stream pools and ponds	FSC	CSC	Covered	Expected
San Diego Horned Lizard	Friable soils in Chaparral, Coastal Scrub, Oak woodlands, and old dirt roads with native ant species	FSC	CSC Protected	Covered	Potentially Present
Coronado Skink	Various habitats including grasslands, Coastal Scrub, and woodlands	FSC	CSC	Not Covered	Expected
Orangethroat Whiptail	Coastal Scrub, Chaparral, sandy floodplains with patches of brush and rock	FSC	CSC Protected	Covered	Expected
Silvery Legless Lizard	Leaf litter and sandy substrates	FSC	CSC	Not Covered	Potentially Present
Coastal Western Whiptail	Coastal Scrub, Chaparral, and grasslands	FSC	SA	Not Covered	Potentially Present
Coast Patch-nosed Snake	Chaparral and Coastal Scrub; may require mammal burrows or woodrat nests for overwintering	FSC	CSC Protected	Not Covered	Potentially Present

Common Name	Habitat	ESA Status	CESA Status	MSCP Status	Project Area
San Diego Ringneck Snake	Chaparral, forest and grasslands	None	SA	Not Covered	Potentially Present
Coastal Rosy Boa	Rocky outcrops within Chaparral and Coastal Scrub	FSC	SA	Not Covered	Low Potential to Occur Due to Lack of Suitable Habitat
Two-striped Garter Snake	Semi-permanent and permanent bodies of water in variety of habitats. Requires riparian border	None	CSC Protected	Not Covered	Expected
Northern Red Diamondback Rattlesnake	Rocky outcrops and areas of heavy brush or rugged terrain on slopes of chaparral, sage scrub, and desert scrub, usually below 400 feet	FSC	CSC	Not Covered	Expected
Turkey Vulture	Open habitats with large trees	FSC	CSC	Not Covered	Observed in project area
Golden Eagle	Nests in cliffs or tress in mountainous or hilly terrain	None	CSC Fully Protected	Covered	Very Low Potential to Occur Due to Lack of Suitable Habitat
American Peregrine Falcon	Coastal areas	FE	CE	Covered	Low Potential to Occur Due to Lack of Suitable Habitat
Sharp-shinned Hawk	Mixed woodlands near open areas, riparian habitats	None	CSC	Not Covered	Potentially Present
Cooper's Hawk	Oak, riparian deciduous or other woodland habitats, often near water	None	CSC	Covered	Observed in project area

Common Name	Habitat	ESA Status	CESA Status	MSCP Status	Project Area
Northern Harrier	Marsh and open terrain	None	CSC	Covered	Expected
Ferruginous Hawk	Dry, open terrain	FSC	CSC	Covered	Potentially Present
Osprey	Near lagoons, bays, and lakes	None	CSC	Not Covered	Potentially Present
Loggerhead Shrike	Grassland or open habitats with bare ground and sparse shrub and/or tree cover	FSC	CSC	Not Covered	Potentially Present
Tricolored Blackbird	Near ponds	None	CSC	Covered	Expected
Least Bell's Vireo	Riparian woodlands, typically nests in immature *Salix* spp. (willow) stands	FE	SA SE	Covered	Potentially Present.
Coastal California Horned Lark	Grasslands, Disturbed Land and open areas with sparse, low vegetation	None	CSC	Not Covered	Expected
Burrowing Owl	Grasslands, generally those occupied by other burrowing animals	None	CSC	Covered	Not Expected to Occur Due to Lack of Suitable Habitat
Coastal California Gnatcatcher	Coastal Scrub	FT	CSC	Covered	Potentially Present
Western Bluebird	Open woodlands, farmlands and orchards	None	None	Covered	Potentially Present

Common Name	Habitat	ESA Status	CESA Status	MSCP Status	Project Area
Yellow Warbler	Riparian woodlands with Salix spp.(willow) component	None	CSC	Not Covered	Expected
Yellow-breasted Chat	Riparian woodland/scrub with dense undergrowth	None	CSC	Not Covered	Expected
Coastal Cactus Wren	Coastal Scrub with patches of *Cylindropuntia prolifera* (coastal cholla) and other cacti	None	CSC	Covered	Not Expected to Occur Due to Lack of Suitable Habitat
Southern California Rufous-crowned Sparrow	Rocky hillsides with sparse, low Coastal Scrub or Chaparral, sometimes mixed with grassland	FSC	CSC	Covered	Expected
Grasshopper Sparrow	Grasslands and pastures	None	SA	Not Covered	Potentially Present
Southwestern Willow Flycatcher	Summer resident; Riparian woodland with *Salix* spp.(willow) component	FE	CSC	Covered	Low Potential to Occur
American Badger	Open grasslands near native habitat	None	None	Covered	Not Expected to Occur Due to Lack of Habitat
San Diego Black-tailed Jackrabbit	Open Chaparral, Coastal Scrub and grasslands	FSC	CSC	Not Covered	Expected
Dulzura California Pocket Mouse	Coastal Scrub with fine sandy soils	FSC	CSC	Not Covered	Expected
Northwestern San Diego Pocket Mouse	Coastal Scrub	FSC	CSC	Not Covered	Expected

Common Name	Habitat	ESA Status	CESA Status	MSCP Status	Project Area
San Diego Desert Woodrat	Chaparral, often in rock outcrop areas	FSC	CSC	Not Covered	Expected
Yuma Myotis	Primarily woodlands and forests; forages over water	FSC	CSC	Not Covered	Potentially Present
Long-eared Myotis	Multiple habitats; forages in oak/coniferous forests	FSC	None	Not Covered	Potentially Present
Fringed Myotis	Multiple habitats; forages in coniferous forests	FSC	None	Not Covered	Potentially Present
Long-legged Myotis	Multiple habitats; forages in coniferous forests	FSC	None	Not Covered	Potentially Present
Small-footed Myotis	Multiple habitats; strongly associated with openings in woodlands, brush and riparian habitats	FSC	None	Not Covered	Potentially Present
Spotted Bat	High rocky cliffs; forages in riparian and edge habitats	FSC	CSC	Not Covered	Potentially Present
Pallid Bat	Multiple habitats; forages in open forest and grasslands	None	CSC	Not Covered	Potentially Present
Pocketed Free-tailed Bat	Cliffs	None	CSC	Not Covered	Potentially Present – Known From San Diego River in Mission Gorge (CNDDB 2004)
Big Free-tailed Bat	Cliffs; strong association with rugged, rocky canyons	None	CSC	Not Covered	Potentially Present

Sensitive Biological Resources

Sensitive resources are defined here as species of rare and/or endangered status or depleted or declining according to the USFWS, CDFW, California Native Plant Society and/or the City of San Diego. Sensitive habitats are those considered rare within the region either because of development encroachment or are naturally limited in distribution and/or support rare, threatened, or endangered species.

Subarea A supports sensitive habitats including wetland habitats, Riparian and Freshwater Marsh and the upland communities Diegan Coastal Sage Scrub and Non-native Grassland. Several sensitive species have potential to occur in Subarea A, including the federally listed endangered Least Bell's Vireo (*Vireo bellii pusillus*) and CDFW sensitive Cooper's Hawk (*Accipiter cooperi*). Riparian Habitats have extremely high wildlife value because of the availability of water and cover and the abundance of forage in the form of vegetation and other animals.

Several sensitive species also inhabit Diegan Coastal Sage Scrub and have potential to occur in Subarea A, including the threatened California Gnatcatcher (*Polioptila californica californica*) and CDFW sensitive Rufous-crowned Sparrow (*Aimophila ruficeps canescens*). Both Riparian and Diegan Coastal Sage Scrub habitats are naturally limited in distribution and have been substantially reduced in Southern California by development and other disturbance activities. See Tables 1, 2, and 3 for a listing of sensitive species and their potential for occurrence in Subarea A.

Wildlife Corridors

A wildlife corridor, or linkage, is often defined as a landscape feature that allows animal movement between two patches of habitat or between habitat and other important habitat features such as water (Ogden 1996).

The MSCP preserve was designed to maintain connections between core habitat areas, including linkages between coastal lagoons and more inland habitats, and linkages between different watersheds. In addition to allowing for demographic and genetic exchange by all species between core preserve areas, linkages are intended to allow larger predators (mountain lions, coyotes, and bobcats) to move among conserved habitat blocks and reach coastal habitats.

Subarea A is located within and adjacent the City's MSCP Multi Habitat Planning Area (MHPA). The MSCP identifies the San Diego River corridor as a Core Biological Habitat Linkage between the Pacific Ocean and Mission Trails Regional Park. The San Diego River corridor is important because it provides a

linkage between habitats that allows wildlife to disperse to larger areas of native habitat in the region and help increase or maintain biological diversity.

VI. Regulatory Background

The project is being undertaken within the City of San Diego by the City and is therefore subject to the biological regulations of the City as well as state and federal agencies.

A. City of San Diego

The City has several regulations governing biological resources, including the MSCP, the Environmentally Sensitive Lands regulations, and the Biology Guidelines.

The MSCP is a comprehensive habitat conservation-planning program for southwestern San Diego County. The program targets areas for preservation (labeled MHPA in the City of San Diego) and requires implementation of the City's MSCP implementing regulations in exchange for local agency 'take' authority over covered federal and state-listed species. The City's MSCP Subarea Plan, Biology Guidelines, and Environmentally Sensitive Lands Regulations are the implementing regulations of the City's MSCP pursuant to its implementing agreement with the USFWS and CDFW.

The MSCP identifies the MHPA, or preserve of the MSCP, and is intended to link all core biological areas into a regional wildlife preserve. In several peripheral areas in the Program Area, particularly at its western boundary, the proposed FPA area contains and is adjacent to MHPA land, although no developed land is included or proposed to be included in the MHPA. This urban habitat area contributes to the MSCP by providing habitat for native species, shelter and forage for migrating species, and linkages between biological core areas capable of supporting a diverse range of native species.

For projects located outside the MHPA, habitat must either be acquired as mitigation or monies must be paid into a habitat acquisition fund. For developments located wholly within the MHPA, a 25% development area is allowed for each parcel, and the remainder of the site is preserved as mitigation. For developments located partially within the MHPA, all lands outside the MHPA may be developed; if lands outside the MHPA total less than 25% of the parcel, development within the MHPA is allowed in order to achieve 25% development of the parcel. Any development within the MHPA must be located in the least biologically sensitive portion of the site.

Within the City, wetlands are regulated under the Municipal Code's Environmentally Sensitive Lands Ordinance (ESL) and Biology Guidelines. According to the City's Municipal Code, wetlands are defined as areas characterized by naturally occurring hydrophytic, or wetland vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools. The City also takes jurisdiction over areas that have hydric soils or wetland hydrology but lack naturally occurring wetland vegetation due to human activities or because of catastrophic or recurring natural events, such as flooding or fire.

Pursuant to the Biology Guidelines, impacts to wetlands should be avoided and minimized to the maximum extent practicable, and are allowed only under three specific circumstances: 1) Essential public projects; 2) Economic viability projects where complete avoidance of wetland impacts would deprive the landowner of economically viable use of the property; and 3) Biologically superior projects, where the impacted wetland is low quality and mitigation will result in a biologically superior result.

The City also requires that a wetland buffer adequate to protect the functions and values of the wetland be maintained. The City's Biology Guidelines [Section II(A)(1)(b)] provide guidance for maintenance of wetland buffers outside the coastal zone and requires that "a wetland buffer shall be maintained around all wetlands as appropriate to protect the functions and values of the wetland. Section 320.4(b)(2) of the U.S. Army Corps of Engineers General Regulatory Policies (33CFR 320-330) list criteria for consideration when evaluating wetland functions and values."

In addition, any development adjacent to the MHPA must comply with the MHPA land use adjacency guidelines, as follows:

Drainage – 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 – Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, 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 – 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 – 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 – 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 – No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.

Brush Management – 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. Zones 2 and 3 will be combined into one zone (Zone 2) and 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. Zone 2 will be increased by 30 feet, except in areas with a low fire hazard severity rating where no Zone 2 would be required. Brush management zones will not be greater in size that is currently required by the City's 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 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. For existing and approved projects, the brush management zones, standards and locations, and clearing techniques will not change from those required under existing regulations.

Grading/Land Development – Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.

B. California Department of Fish and Wildlife

Wetlands within the state of California are also subject to California Department of Fish and Wildlife (CDFW) jurisdiction pursuant to Section 1600 of the California Fish and Game Code. Section 1602 of the code requires consultation and permitting with CDFW anytime an applicant/project will:

> *…substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake…*

CDFW utilizes the federal USFWS definition to identify wetland boundaries under its jurisdiction as follows:

> *Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year.*

These State regulations define the CDFW jurisdiction for the purpose of administering Sections 1601 and 1603 of the Fish and Game Code as within the bed, bank, and channel of stream, including intermittent streams. The CDFW routinely asserts jurisdiction over areas demonstrating any one of three parameters: 1) Dominance of hydrophytic vegetation, 2) Hydric soils, and/OR 3) Wetland hydrology.

The State also regulates impacts on rare plant and animal species through the California Endangered Species Act. State listed species with potential to occur in Subarea A are listed in Tables 1, 2, and 3. Note; however, that the City of San Diego has take authority over many of the areas' State-listed species through the MSCP. For projects that are deemed consistent with all MSCP implementing regulations, including species specific requirements set forth in Appendix A of the City's MSCP Subarea Plan, impacts to MSCP-covered listed species are generally allowed through permits issued by the City of San Diego. Any impacts to non-covered state-listed species would require a permit from CDFW.

C. U.S. Fish and Wildlife Service

The Federal government also regulates impacts on rare plant and animal species through the Endangered Species Act. Federally listed species with potential to occur in Subarea A are listed in Tables 1, 2, and 3. Note; however, that the City of San Diego has take authority over many of the areas' federally-listed species through the MSCP. For projects that are deemed consistent with all MSCP implementing regulations, including species specific requirements set forth in Appendix A of the City's MSCP Subarea Plan, impacts to MSCP-covered listed species outside the MHPA are generally allowed through permits issued by the City of San Diego. Take of MSCP covered species within the MHPA is not allowed, and certain wetland species such as Least Bell's Vireo and Fairy Shrimp would still require federal permitting. Any impacts to non-covered listed species, and certain wetland-associated species would require a Section 7 or 10 consultation before a permit may be issued by the USFWS.

D. U.S. Army Corps of Engineers

Waters of the U.S., including wetlands, are subject to U.S. Army Corps of Engineers (ACOE) jurisdiction pursuant to Section 404 of the federal Clean Water Act. Non-wetland waters of the U.S. are defined by the ACOE based on the presence of an ordinary high water mark (OHWM) as defined at 33 CFR 328.3(e). The OHWM is defined therein as:

> *The term "ordinary high water mark" means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as 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.*

ACOE jurisdictional wetlands exhibit the following three characteristics: 1) Dominance of hydrophytic vegetation; 2) Wetland hydrology; and 3) Hydric soils. Generally, all three of these wetland indicator criteria are required to delineate a

federal wetland; however, the ACOE provides guidance for delineating wetlands in situations when less than three criteria are present.

In addition to wetlands, ACOE has jurisdiction over other Waters of the U.S. that include non-wetland areas such as unvegetated channels that exhibit a clear OHWM and are considered to be, or are directly connected to, a navigable waterway.

Impacts on ACOE jurisdictional wetlands or other Waters of the U.S. would require a Section 404 permit.

E. San Diego Regional Water Quality Control Board

In addition, dredge or filling waters of the United States (e.g., creek, drainage with or without water flow, wetland) requires a Section 401 water quality certification, pursuant to Section 401 of the Clean Water Act. Applications for Section 401 certification are reviewed and processed in San Diego County by the San Diego Regional Water Quality Control Board (RWQCB).

Pursuant to the California Porter-Cologne Water Quality Act, projects that propose discharge (e.g. fill or development) are regulated under the waste discharge requirements of the act. The applicant must file with the RWQCB for such discharge.

Note that the San Diego River is listed as an impaired water body by the RWQCB. As such any project-specific developments will be reviewed very closely the City and RWQCB to ensure water quality impacts on the river are avoided.

VII. Development Constraints

The project proposes an amendment to the Navajo Community Plan, rezoning portions of Subarea A, and an update to the Navajo Facilities Finance Plan. Any projects carried out within Subarea A would need to be in conformance with City regulations, as described above, and would also need to conform to state and federal regulations if wetlands impacts or impacts on non-MSCP covered species would result.

For projects that would not impact Tier I-III habitats or wetlands (including wetland buffers), biological resource impacts would not generally be anticipated. However, some exceptions may occur such as the use of an area for wildlife movement, raptors nests in ornamental trees, etc. For areas that do have such resources, a site-specific analysis of biological resources should be conducted using the data included herein as a basis.

Development Outside the MHPA

For parcels located outside of the MHPA, there is no limit on encroachment into sensitive biological resources, with the exception of wetlands, narrow endemics, and federally or state listed species that are not covered by the MSCP. However, impacts to sensitive biological resources must be assessed, and mitigation, where necessary, must be provided as described in Table 4. Impacts to Tier II or III communities may be achieved through preservation within tier or higher. Land with the appropriate habitat may be preserved in perpetuity, or payment into the City's habitat acquisition fund may be made to satisfy the mitigation requirements.

Impacts to wetlands must be avoided to the maximum extent practicable both within and outside of the MHPA. See Section VI for a full discussion of wetland regulatory constraints. Impacts on Narrow Endemic species must be avoided to the maximum extent practicable. If impacts cannot be avoided, then management, enhancement, or transplantation would be required.

Development Inside or Adjacent the MHPA

For parcels located within or partially within the MHPA, limits on encroachments in to MHPA lands are set forth in the City's ESL and Biology Guidelines. For parcels located entirely within the MHPA, up to 25% of the parcel may be developed and development must be sited within the least biologically sensitive portions of the parcel.

For parcels located partially within the MHPA, the portion of the site outside of the MHPA may be developed, and encroachment into the MHPA is allowed if necessary in order to achieve a 25% development area on the entire parcel. For projects developed in conformance with the MSCP, impacts on biological resources on properties entirely constrained by the MHPA is achieved through preservation of the undeveloped portion of the parcel through: 1) Granting the land to the City; 2) A conservation easement; or 3) A covenant of easement.

In addition, any projects located adjacent the MHPA must conform to the MHPA land use adjacency guidelines as described in Section VI of this document.

For parcels partially constrained by the MHPA, biological impacts would require mitigation at the ratios set forth in Table 5. Note that undeveloped portions of the site may be used toward any required mitigation.

Table 4. City of San Diego Mitigation Requirements for Habitat Impacts Outside and Inside of the MHPA.

TIER	HABITAT TYPE	REQUIRED MITIGATION RATIOS
TIER 1: (rare uplands)	Southern Foredunes; Torrey Pines Forest; Coastal Bluff Scrub; Maritime Succulent Scrub; Maritime Chaparral; Scrub Oak Chaparral; Native Grassland; Oak Woodlands	**Impact Outside of MHPA** Preservation Inside MHPA: 1:1 Preservation Outside MHPA: 2:1 **Impact Inside of MHPA** Preservation Inside MHPA: 2:1 Preservation Outside MHPA: 3:1
TIER II: (uncommon uplands)	Coastal Sage Scrub (CSS) CSS/Chaparral	**Impact Outside of MHPA** Preservation Inside MHPA: 1:1 Preservation Outside MHPA: 1.5:1 **Impact Inside of MHPA** Preservation Inside MHPA: 1:1 Preservation Outside MHPA: 2:1
TIER III A: (common uplands)	Mixed Chaparral Chamise Chaparral	**Impact Outside of MHPA** Preservation Inside MHPA: 0.5:1 Preservation Outside MHPA: 1:1 **Impact Inside of MHPA** Preservation Inside MHPA: 1:1 Preservation Outside MHPA: 1.5:1
TIER III B: (common uplands)	Non-native Grasslands	**Impact Outside of MHPA** Preservation Inside MHPA: 0.5:1 Preservation Outside MHPA: 1:1 **Impact Inside of MHPA** Preservation Inside MHPA: 1:1 Preservation Outside MHPA: 1.5:1
TIER IV: (other uplands)	Disturbed Land Agriculture Eucalyptus Woodland Ornamental Plantings	Impacts to these areas are less than significant; no mitigation required.

VIII. Environmental Impacts

Planning actions that may be implemented as part of the project could result in impacts to the vegetation communities/land uses that occur within Subarea A. It is not currently possible to quantify the extent of habitat that may be affected by the proposed planning actions because specific zoning changes and future project-specific activities have not been identified. To better understand where impacts on biological resources may occur within Subarea A, the following

sections describe existing sensitive biological resources and regulatory constraints relevant to each resource.

Direct Impacts

Vegetation Community Impacts

Subarea A includes significant areas of Riparian (26.0 acres) and Freshwater Marsh Habitat (1.4 acres) along the San Diego River, as well as sensitive upland habitats. Habitats and potential significance of impacts on such habitats are described in Table 5, below.

Table 5. Summary of Potential Impacts to Vegetation Communities

Vegetation Community (MSCP Tier Habitat Type)	Potential Impacts	Biological Significance Determination
Riparian Habitat (Tier I Wetland)	Potential direct and indirect impacts from project-specific development	Significant
Freshwater Marsh (Tier I Wetland)	Potential direct and indirect impacts from project-specific development	Significant
Diegan Coastal Sage Scrub (Tier II)	Potential direct impacts from project-specific development	Significant
Non-Native Grassland (Tier IIIB)	Potential direct impacts from project-specific development	Significant
Disturbed Land (Tier IV)	Potential direct impacts from project-specific development	Not Significant
Ornamental	Potential direct impacts from project-specific development	Not Significant
Urban/Developed (Tier IV)	Potential direct impacts from project-specific development	Not Significant

Within the area labeled 'C1' in Subarea A (Figure 2), the Community Plan Land Use allows for Industrial use. These parcels consist primarily of Urban/Developed land that is compatible with future Industrial use of these areas, but there is also Riparian and Freshwater Marsh habitat associated with the San Diego River that is within the MHPA. Before project-specific development plans could be implemented that may affect these sensitive vegetation communities, a site-specific biological resources report including a wetland delineation would be required by the City of San Diego. Direct impacts on Riparian or Freshwater habitat and wetland buffers would be considered significant.

Within the area labeled 'C2' (Figure 2), the Community Plan Land Use allows for Commercial use. This parcel consists of Urban/Developed land that would be compatible with future Commercial use of these areas, but this parcel also includes Riparian Habitat, some of which is within the MHPA. Before specific project-specific development plans could be implemented that may affect this sensitive vegetation community, a site-specific biological resources report, including a wetland delineation would be required. In addition, wetland impacts would be subject to the jurisdiction of the Corps, CDFW, RWQCB, and the City. Direct impacts on Riparian Habitat or encroachment into the MHPA beyond that allowed by the City of San Diego regulations would be considered significant.

In the southern portion of Subarea A near Alvarado Canyon and Adobe Falls Road, there are small patches of Diegan Coastal Sage Scrub immediately south of Interstate 8 and adjacent to Waring Road, both of which are designated as MHPA land. Also, there is a portion of Alvarado Creek and an unnamed tributary at 'C3'. Alvarado Creek conveys water west, roughly parallel to Interstate 8 from Lake Murray and into Subarea A. The streambed is sparsely vegetated at the east end of Subarea A and has been directed underground into a culvert near commercial businesses and parking lots. The creek then "daylights" into a concrete lined channel with dense patches of the invasive Giant Reed (*Arundo donax*) before flowing under Mission Gorge Road and into the San Diego River. This portion of Alvarado Creek and its tributary are designated for Office, Commercial, and Multi-Family Residential use in the Community Plan Land Use and are not within the MHPA. Impacts on the streambed or wetland vegetation may be subject to the jurisdiction of the Corps, CDFW, RWQCB, and the City. Before specific development plans could be implemented that may affect Alvarado Creek, its tributary or the Diegan Coastal Sage Scrub, a site-specific biological resources report including a wetland delineation would be required. Direct impacts on jurisdictional drainages, wetland vegetation or Diegan Coastal Sage Scrub or encroachment into the MHPA beyond that allowed by City regulations would be considered significant.

Other vegetation communities or land uses that occur within Subarea A include landscape plantings of horticultural specimens along roads and interchanges and Disturbed Land that lacks vegetation or supports only non-native vegetation. Impacts on these vegetation communities/land uses would not be considered significant.

There are also opportunities for creation, restoration, or preservation of sensitive vegetation communities within Subarea A. Such measures could serve as mitigation measures to reduce potential future project-specific development

impacts to less than significant. These opportunities are discussed in the Mitigation section of this report.

Wildlife Corridor Impacts

The San Diego River and associated Riparian and upland vegetation communities within the valley and on the slopes provides a regional wildlife corridor that links Mission Trails Regional Park with Mission Bay Park. Impacts to sensitive vegetation communities in Subarea A may also be considered an impact on the regional wildlife corridor. However, consistency with City wetland regulations would also generally avoid impacts to wildlife corridors.

Sensitive Species Impacts

Future project-specific devlopement would have the potential to result in temporary and/or direct impacts to sensitive flora and fauna species within Subarea A. Temporary impacts could result from construction activities that occur in close proximity to potential nesting habitat of sensitive species. Impacts could include adversely affecting individuals during the breeding season causing them to abandon nests thereby increasing the potential for nest predation or neglect and reducing fecundity (potential reproductive capacity) of the species.

Project-specific development activities could also result in permanent direct impacts through destruction of sensitive plants and animals including sensitive birds and their nests and eggs, and aestivation sites for sensitive amphibians occurring within these habitat areas. It is not possible to determine that significant impacts to sensitive species would occur from proposed development activities; however, direct impacts on non-MSCP covered federal and state listed sensitive species or narrow endemics outside the MHPA would be considered significant. Impacts to covered or non-covered listed species or to narrow endemic species within the MHPA would be considered significant.

Implementation of Mitigation Measures 1-8 would reduce the potential impact to less than significant for impacts outside the MHPA. Impacts within the MHPA should be avoided.

Indirect Impacts

Indirect Impacts are defined in the CEQA Guidelines as "effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable." Indirect impacts can result in a temporary or permanent impact that causes a biologically significant change in the environment (California Resources Agency 2001: §I5358)

There is the potential for the following indirect impacts to occur on vegetation communities from future project-specific development:

- Noise, dust and associated construction activity could affect animals during construction
- The introduction of invasive exotic plant species into native habitats from disturbance or removal of native vegetation communities
- Excessive irrigation of landscaping adjacent to native vegetation communities could alter the localized natural moisture regime and increase weediness and susceptibility of plants to disease, pests, and fungus.
- Increased urban runoff and pollution into native vegetation communities through use of herbicides, pesticides, and fertilizers.
- Increase of human disturbance of native vegetation through trampling and introduction of non-native, weedy species.

These potential indirect impacts would be considered significant. However, implementation of Mitigation Measures 1-8 would reduce the potential impact to less than significant. Note also that the San Diego River is listed as an impaired water body by the RWQCB. As such any project-specific developments will be reviewed very closely the City and the RWQCB to ensure that water quality impacts on the river are avoided.

In addition, permanent indirect impacts could occur from an increase in the amount of edge habitat, night illumination of vegetation communities, and an increase in human intrusion into the corridor. An increase in the amount of edge habitat can increase opportunities for invasive species to spread and colonize new areas and degrade the quality of habitat for plant and wildlife species. The introduction of additional lighting into the wildlife corridor could cause physiological and behavioral changes in wildlife species and disproportionately increase opportunities for predation on vulnerable species. Increases in human disturbance to the corridor could occur from an increase in human intrusion in areas adjacent to development. Human disturbance could include trampling, harassing of wildlife, introduction of domestic animals such as cats and dogs, and an increase in litter. Domestic cats and dogs are known to prey on reptiles, passerine birds, and small mammals. These potential indirect impacts on the wildlife corridor in the MHPA would be considered significant and shall be avoided through conformance with the MHPA land use adjacency requirements of the MSCP.

MSCP Consistency Issues

Future development actions that are consistent with the City's MSCP would provide for the long-term viability of wildlife and sensitive habitats. Portions of the

project lie within or adjacent to the MHPA and these areas could incur indirect impacts from development activities. These indirect impacts include allowable compatible uses within the MHPA, such as passive recreation, utility line and road maintenance, and essential public facility improvement. Since project-specific development activities are not well defined, it is not currently possible to address required compliance with detailed MSCP planning. Implementation of Mitigation Measures 1-9 would reduce the potential impact to less than significant.

IX. Biological Mitigation Requirements and Opportunities

In addition to biological constraints, Subarea A includes several opportunities for habitat restoration, creation, or conservation. The following are project-specific development mitigation requirements as well as biological restoration and enhancement opportunities.

A. Project Mitigation Requirements

The following measures would provide mitigation for impacts on biological resources within Subarea A. All projects will be required to be in compliance with the City MSCP Subarea Plan and its implementing regulations.

1. The project policies shall include a requirement to make use of project designs, engineering, and construction practices that avoid and minimize impacts to sensitive habitats and wildlife corridor /MHPA preserve areas.
2. Further environmental review shall be conducted in compliance with the most recent versions of all applicable local, state, and federal regulations where specific actions would result in impacts to sensitive habitats and/or wildlife corridor/MHPA preserve areas. These reviews shall be conducted at the earliest possible period of tiered project review to ensure the most flexibility in planning and project design, and resolve conflicts with significant biological resources.
3. Prior to any project impacts occurring within areas under the jurisdiction of federal, state, or local biological resource regulatory agencies, the project applicant for the specific work shall obtain any and all applicable resource agency permits which may include, but are not limited to, Clean Water Act 404 and 401 permits and California Department of Fish and Game Code 1601 and 1603 Streambed Alteration Agreements.
4. Significant impacts to City Tier I-III habitats shall be mitigated as shown in Table 4 and as described in Section VI.
5. Any significant wetland/waters of the US resource impacts to the San Diego River or other such features located in the planning area identified

during the site specific environmental review shall be mitigated within the immediate area of the impact action where feasible.

6. Where potential impacts to non-MSCP covered federal and/or state listed sensitive species and/or narrow endemic species may occur as a result of proposed project actions, coordination with responsible listing agencies (USFWS and/or CDFW) shall commence as early as practicable and in conjunction with, or prior to, the CEQA process for actions that may affect these species. Specific actions necessary to protect these sensitive species shall be determined on a case-by-case basis.
7. Project actions resulting in impacts to nesting migratory birds (as defined under the Migratory Bird Treaty Act [MBTA] shall incorporate seasonal timing constraints for any wetland habitat clearing or shall require work corridor surveys for nesting birds. Where active nests are identified, these shall be avoided if practical, and if necessary, a MBTA Special Purpose Permit (50 CFR §21.27) shall be completed before removal of active nests of MBTA covered species.
8. Impacts on nesting birds shall be avoided in compliance with California Fish and Game Code (§3503) under which it is unlawful to "take, possess, or needlessly destroy" avian nests or eggs.
9. All future specific actions undertaken at or near the San Diego River or adjacent the MHPA shall be reviewed for consistency with the MSCP preserve and development requirements, as well as the MHPA Land Use Adjacency Guidelines.

B. Biological Mitigation Opportunities and the San Diego River Park Master Plan

The San Diego River Park Master Plan is a comprehensive planning document that was developed by a multi-disciplinary team including, but not limited to, the San Diego River Conservancy, San Diego River Alliance, San Diego River Park Foundation, San Diego River Coalition, Civitas Inc., and the City of San Diego. The primary goal of the plan is to create a river-long park, stretching from the San Diego River headwaters near Julian to the Pacific Ocean at Mission Bay. The River and its adjacent land uses are disconnected and the plan would help reverse this condition and "restore the symbiotic relationship between the river and nearby land uses."

As specific project development actions are implemented and impacts on biological resources occur, mitigation within the San Diego River and adjacent habitats will likely be necessary. There appear to be several opportunities to mitigate development impacts within the planning area for the San Diego River Park. Potential mitigation opportunities are presented below and are identified as 'O1-O2' with 'O' denoting a potential 'Opportunity.'

The San Diego River Park Master Plan has identified areas along the River at 'O1' (Figure 2) that are recommended for addition to the adjacent open space areas. These parcels abut the River and are currently Urban/Developed, but are classified as Open Space in the Community Land Use Plan. An opportunity may be available along the River in these areas to mitigate impacts from development projects through creation of wetland habitats and wetland buffer habitats within these Urban/Developed areas.

Another potential opportunity for mitigation of project-specific development impacts and identified as a "Key Site" in the San Diego River Park Master Plan is at the confluence of Alvarado Creek and the San Diego River ('O2'; Figure 2). Mitigation opportunities include daylighting, or uncovering, and dechannelizing Alvarado Creek, removing large areas of Giant Reed, and planting native riparian vegetation to enhance existing Riparian Habitat. These areas are not within the MHPA, but provide significant biological opportunities and, if restored, may be candidates for inclusion in the MHPA.

Along the entire San Diego River within Subarea A, opportunities for mitigation exist such as removal of Ornamental vegetation along development parcels that abut the River. For instance, several of the Open Water areas of the River are infested with the invasive Uruguay Marsh Purslane. Mitigation could include removal of this species.

C. Protection and Notice Element

Assurance that mitigation areas will be adequately protected from future development shall be provided through 1) the dedication of fee title for the mitigation land to the City; or 2) the establishment of a conservation easement relinquishing development rights to a conservation entity; or 3) a recorded covenant of easement against the title of the property for the remainder area, with the USFWS and CDFW named as third party beneficiaries, where a project has utilized all of its development area potential as allowed under the OR-1-2 zone.

D. Management Element

Assurance that the mitigation areas will be adequately managed and monitored in a manner consistent with Section 1.5 Preserve Management, of the City's MSCP Subarea Plan shall be provided through identification of 1) how the objectives of the City's MSCP Preserve Management recommendations will be met for the area, as well as any additional management recommendations resulting from site-specific information; and 2) the responsible entity and funding source for the long-term maintenance and management of the area.

E. Impact Significance After Mitigation

Compliance with the City of San Diego MSCP and its implementing regulations and implementation of Mitigation Measures 1-9 will reduce potential project-specific impacts to a level less than significant.

Notes and References

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