



**Biological Technical Report for the
Black Mountain Road Community
Plan Amendment Project
San Diego, California**

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A handwritten signature in blue ink that reads "Gerry Scheid". The signature is fluid and cursive, with a large loop at the end.

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Acronyms

ACOE	U.S. Army Corps of Engineers
ADD	Assistant Deputy Director
BCME	Biological Construction Mitigation/Monitoring Exhibit
CDFW	California Department of Wildlife
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CPA	Community Plan Amendment
CSVR	Consultant Site Visit Record
DSD	Development Services Department
ESA	Endangered Species Act
ESL	Environmentally Sensitive Lands
GPA	General Plan Amendment
MHPA	Multi-Habitat Planning Area
MMC	Mitigation Monitoring Coordination
MSCP	Multiple Species Conservation Program
PFFPs	Public Facilities Financing Plans
Project	Black Mountain Road Community Plan Amendment Project
RE	Resident Engineer
RWQCB	Regional Water Quality Control Board
SR-56	State Route 56
TIS	Transportation Impact Study
TPP	Transportation Phasing Plans

1.0 Summary

Only one of the four proposed roadway improvements covered in this biological technical report would result in significant impacts to sensitive biological resources. Implementation of MM-TRA-2 would have the potential to impact a total of 1.26 acres of sensitive upland habitat coastal sage scrub and 0.16 acre of wetland comprised of 0.05 acre of freshwater marsh and 0.11 acre of southern willow scrub. Mitigation would be required for each of these impacts to sensitive biological resources and would be accomplished by either the acquisition of similar habitat or the restoration of similar habitat at the specified mitigation ratio.

2.0 Introduction

The Black Mountain Road Community Plan Amendment (CPA) Project (project) proposes to reclassify Black Mountain Road from a 6-lane Primary Arterial to a 4-lane Major from Twin Trails Drive to the southern boundary of the Rancho Peñasquitos community. The project segment of Black Mountain Road subject to the CPA (project roadway) stretches approximately 1.3 miles from Twin Trails Drive on the north to the southern boundary of the community plan adjacent to the Los Peñasquitos Canyon Preserve. Black Mountain Road currently operates as a 4-lane Major with landscaped center medians, contiguous sidewalks, and Class II bike lanes. The bridge section of Black Mountain Road over State Route 56 (SR-56) is wider and operates as a 5-lane Primary Arterial. The project proposes a General Plan Amendment (GPA) to Figure LU-2, Land Use and Street System Map in the Land Use and Community Planning Element of the General Plan to reclassify the project roadway from a Prime Arterial to a Major Arterial, and a CPA to the Transportation Element of the Rancho Peñasquitos Community Plan to reclassify the project roadway from a 6-lane Primary Arterial to a 4-lane Major¹. The City Planning Commission initiated the Community Plan Amendment on February 27, 2014.

The project proposes the following roadway improvement as a design feature to increase the northbound to westbound left-turn pocket storage and improve the flow of northbound traffic (project design feature):

Restripe the segment of Black Mountain Road between the SR-56 westbound ramps and SR-56 eastbound ramps to include an additional northbound lane along Black Mountain Road from the SR-56 eastbound ramps to the middle of the overpass. To accommodate the additional northbound lane created by this restriping on the overpass, the roadway north of the overpass bridge would need to be widened for northbound traffic. The widening would extend approximately 0.15 mile from the SR-56 westbound off-ramp to the first commercial driveway to the north of the overpass.

¹The City of San Diego General Plan and Rancho Peñasquitos Community Plan use different nomenclature for roadway classifications. Consequently, the GPA would reclassify the project roadway as a Major Arterial, and the CPA would reclassify the project roadway as a 4-lane Major.

The following three roadway improvements identified in the Transportation Impact Study (TIS) would mitigate traffic impacts associated with the reclassification of the project roadway from a 6-lane Primary Arterial to a 4-lane Major:

- MM-TRA-1: Install a traffic signal at the intersection of Sundance Avenue and Twin Trails Drive.
- MM-TRA-2: Construct a continuous auxiliary lane on eastbound SR-56 from Carmel Mountain Road to approximately 2,182 feet to the east.
- MM-TRA-3: Construct an additional on-ramp lane at the Rancho Peñasquitos Boulevard/SR-56 westbound on-ramp.

The project design feature and three traffic mitigation measures were analyzed as part of this biological technical report.

Concurrent with the GPA and CPA, the project would also amend the Black Mountain Ranch Subarea Plan and Transportation Phasing Plan (TPP) to remove the requirement to widen the project roadway to a 6-lane Primary Arterial and to add the project design feature and three traffic mitigation measures. As a part of this amendment, the TPP for Black Mountain Ranch would be updated to reflect the project and mitigation measures.

Implementation of the project would subsequently require amending the Rancho Peñasquitos, Black Mountain Ranch, and Pacific Highlands Ranch Public Facilities Financing Plans (PFFPs) to remove the requirement to widen the project roadway to a 6-lane Primary Arterial and to add the project design feature and three traffic mitigation measures. At such time the PFFPs are updated for the Rancho Peñasquitos, Black Mountain Ranch, and Pacific Highlands Ranch communities, any changes to reflect the project and mitigation measures adopted by this action would be incorporated.

3.0 Survey Methods

3.1 Biological Resources Survey

A RECON biologist conducted a general biological survey for the four traffic mitigation areas on November 3, 2017. Vegetation communities were mapped on a 1-inch-equals-200-foot aerial photograph flown in June of 2017. Vegetation community classifications follow Oberbauer et al. (2008), which are based on Holland's 1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. The corresponding vegetation classification used by the City of San Diego is also presented for reference. All plant species observed on-site were also noted, and plants that could not be identified in the field were identified later in the laboratory using taxonomic keys.

Limitations to the compilation of a comprehensive floral checklist were imposed by seasonal factors, such as blooming period. Animal species observed directly or detected from calls, tracks, scat, nests, or other sign were noted.

Floral nomenclature for common plants follows Hickman (1993), for ornamental plants Brenzel (2001), and for sensitive plants California Native Plant Society (CNPS; 2007). Vegetation community classifications follow Oberbauer (2008), which is based on Holland's 1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (1998) and Unitt (2004); for mammals with Baker et al. (2003) and Hall (1981); for amphibians and reptiles with Crother (2001) and Crother et al. (2008); and for invertebrates with Mattoni (1990), and Opler and Wright (1999).

Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (Jennings and Hayes 1994; Unitt 2004; CNPS 2007; Reiser 2001), and species occurrence records from the California Natural Diversity Database (CNDDB; State of California 2011a, 2011b, 2012a, 2012b) and other sites in the vicinity of the survey area.

4.0 Existing Conditions

The four survey areas occur in the northern part of the City of San Diego to the west of Interstate 15 within the community of Rancho Peñasquitos (Figures 1 and 2). The four survey areas are adjacent to existing roads and development (Figure 3). Implementation of the project design feature, MM-TRA-2, and MM-TRA-3 would include some expansion of roadways into the adjacent manufactured slopes. Implementation of MM-TRA-2 would also include the addition of an auxiliary lane along SR-56 and expansion of a bridge over a small canyon. Implementation of MM-TRA-1 involves the installation of a traffic signal within a residential neighborhood.

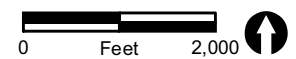
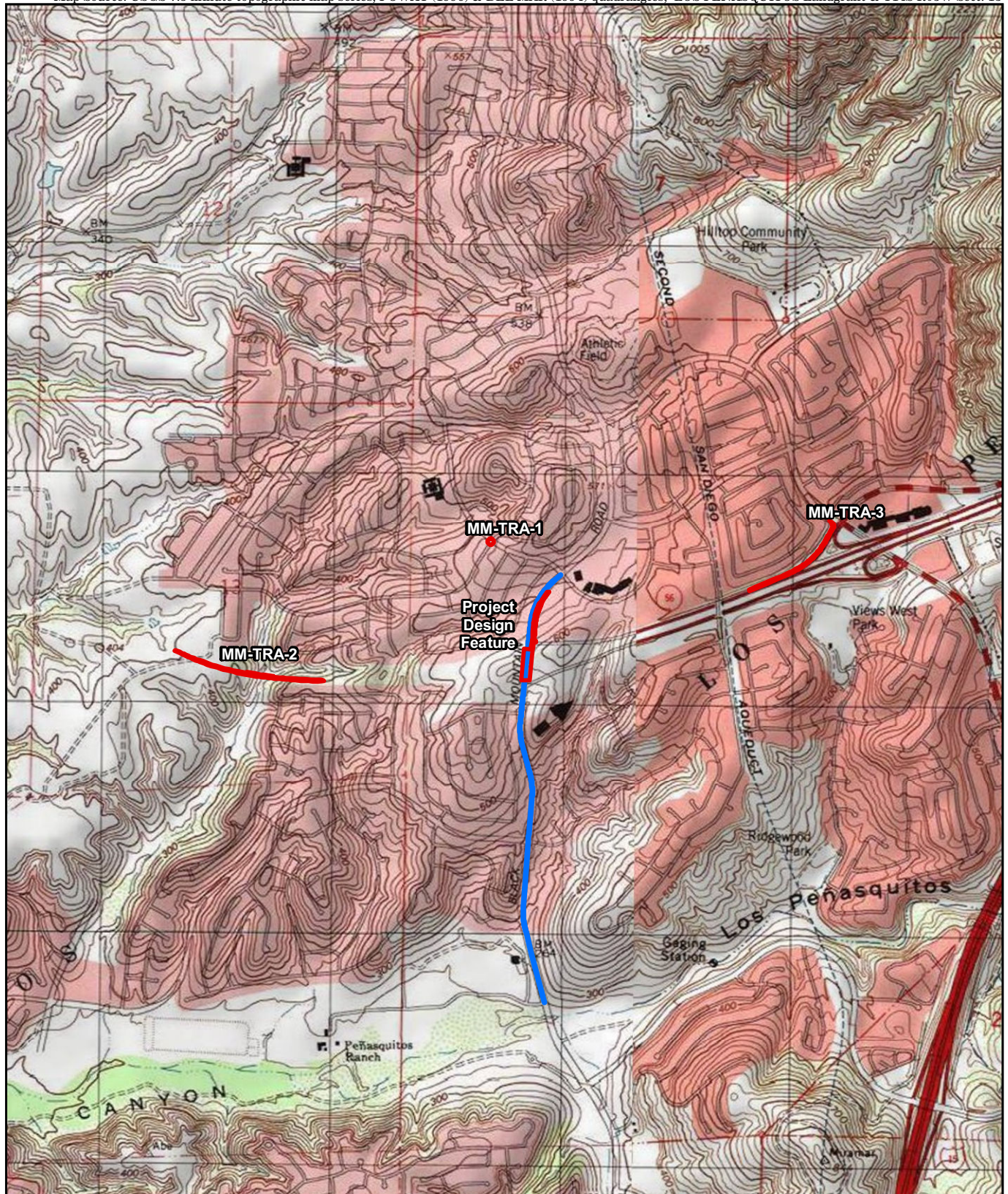
4.1 Botany

Three vegetation communities and two land cover types occur within the site survey areas. The survey area of the project design feature consists of ornamental plantings and developed land (Figure 4a). The survey area for MM-TRA-1 consists entirely of developed land and does not contain any vegetation (see Figure 4a). The survey area for MM-TRA-2 consists of coastal sage scrub, freshwater marsh, southern willow scrub (riparian scrub), ornamental plantings, and developed land (Figure 4b). The survey area of MM-TRA-3 consists of ornamental plantings and developed land (Figure 4c). All four survey areas include some developed land. The acreages of vegetation communities and land cover types are listed in Table 1. A list of plant species observed is provided in Attachment 1.



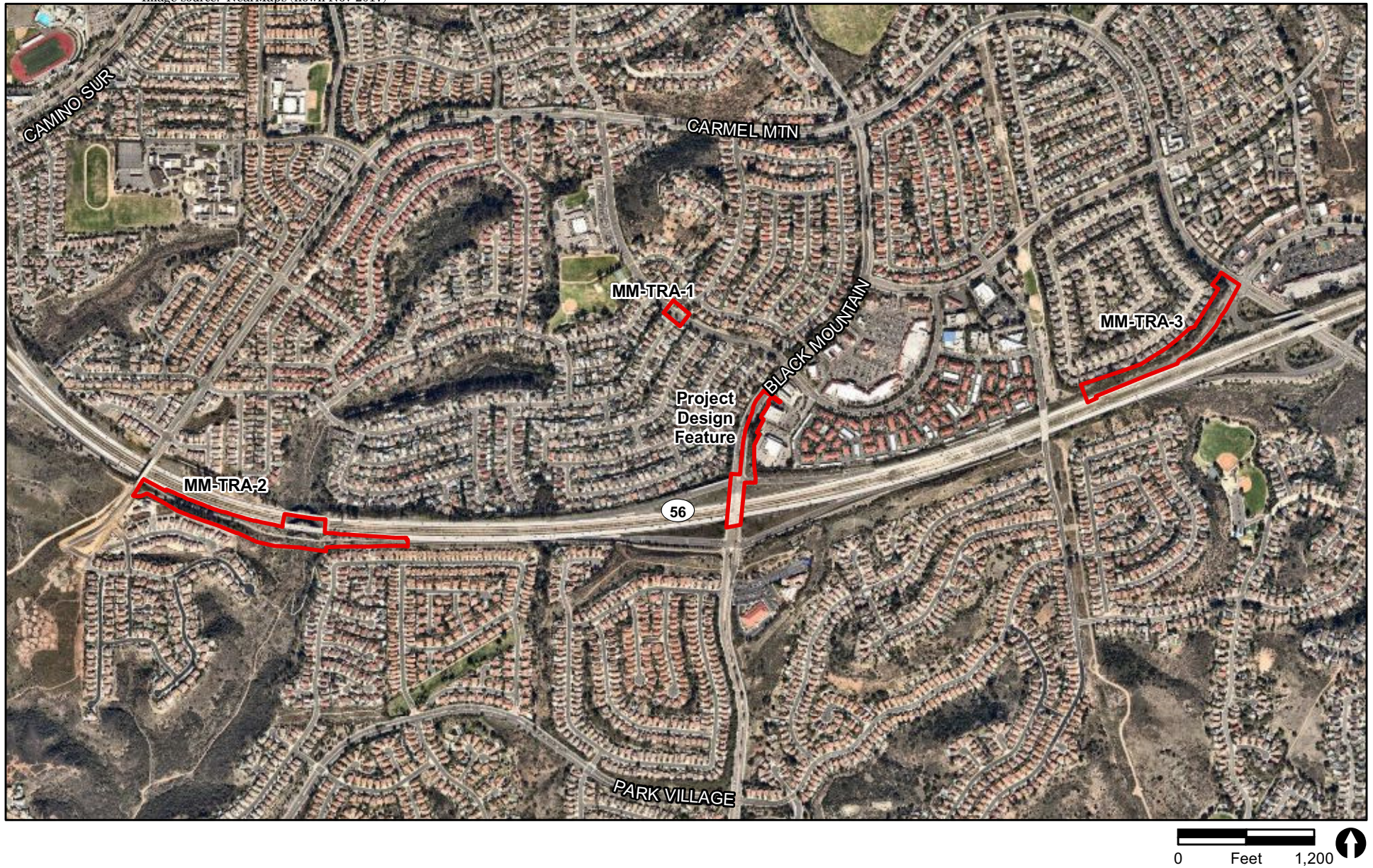
 Project Location


FIGURE 1
Regional Location



- Project Roadway
- Project Design Feature and Traffic Mitigation Measures

Image source: NearMaps (flown Nov 2017)



 Survey Area

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FIGURE 3
Location of Project Design Feature and Traffic Mitigation Survey Areas on Aerial Photograph

Image source: NearMap (flown Nov 2017)



Survey Area

Vegetation Community

Developed

Ornamental Plantings

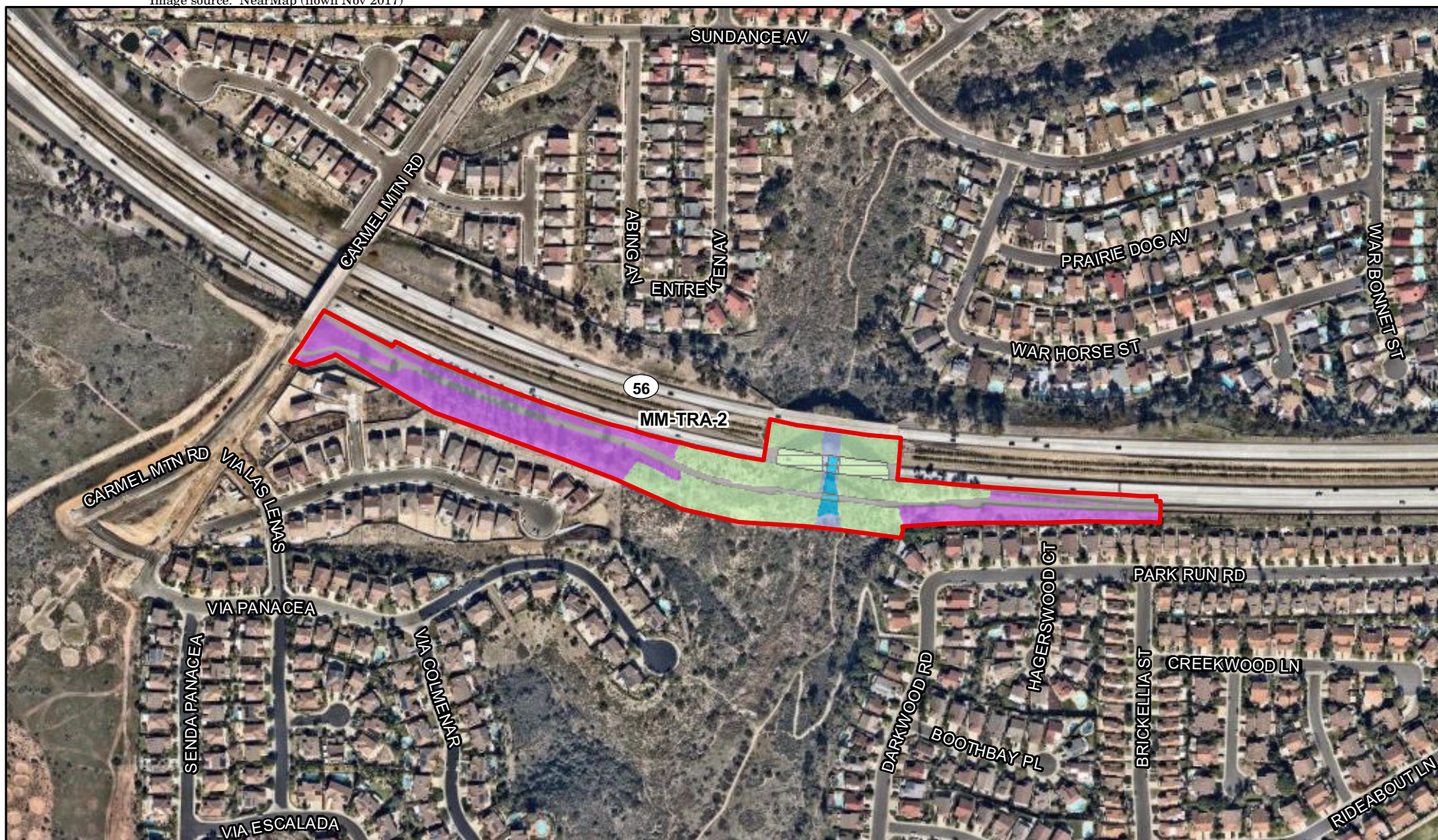
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FIGURE 4a
Vegetation Communities and Land Cover Types
within the Project Design Feature and MM-TRA-1 Survey Area

Image source: NearMap (flown Nov 2017)



 Survey Area

Vegetation Community

 Coastal Sage Scrub

 Coastal Sage Scrub (under bridge)

 Developed

 Freshwater Marsh

 Freshwater Marsh (under bridge)

 Ornamental Plantings

 Southern Willow Scrub

 Southern Willow Scrub (under bridge)




FIGURE 4b

Vegetation Communities and Land Cover Types
within the MM-TRA-2 Survey Area

Image source: NearMap (flown Nov 2017)



 Survey Area

Vegetation Community

 Developed

 Ornamental Plantings

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FIGURE 4c
Vegetation Communities and Land Cover Types
within the MM-TRA-3 Survey Area

Table 1 Summary of Vegetation and Land Cover Types by Survey Area (acres)				
Vegetation Communities/ Land Cover Types	Survey Area			
	Project Design Feature	MM- TRA-1	MM- TRA-2	MM- TRA-3
Coastal Sage Scrub	--	--	3.24	--
Freshwater Marsh	--	--	0.15	--
Southern Willow Scrub	--	--	0.19	--
Ornamental Plantings	1.4	--	3.10	4.5
Developed Land	2.0	0.59	1.58	1.3
TOTAL	3.4	0.59	8.26	5.8

4.1.1 Coastal Sage Scrub

Coastal sage scrub occurs on the slopes adjacent to SR-56 and within the survey area for MM-TRA-2. The coastal sage scrub habitat was created from the revegetation of the manufactured slopes and other disturbed areas after the construction of SR-56. Native plant species that have become established are typical of coastal sage scrub habitat and include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), laurel sumac (*Malosma laurina*), and California encelia (*Encelia californica*).

4.1.2 Freshwater Marsh

Freshwater marsh has developed along the creek that flows under the SR-56 bridge within the MM-TRA-2 survey area. Natural and urban storm water runoff provides seasonal flows that support a dense stand of cattail (*Typha latifolia*) in the creek bed. Other plant species occurring along the margins of the stand of cattail include San Diego marsh elder (*Iva haysiana*), spiny rush (*Juncus acutus*), and wild celery (*Apium graveolens*). Freshwater marsh is considered a type of wetland habitat.

4.1.3 Southern Willow Scrub (Riparian Scrub)

A stand of willow trees has become established in the creek that flows beneath the SR-56 bridge both upstream and downstream from the freshwater marsh areas located in the MM-TRA-2 survey area. Trees of red willow (*Salix laevigata*), black willow (*Salix gooddingii*), and arroyo willow (*Salix lasiolepis*) form a mixed stand of willows that dominate this habitat type. Mule fat shrubs (*Baccharis salicifolia*) along with spiny rush, cattail, and San Diego marsh elder occur in the understory of the trees. Southern willow scrub (riparian scrub) is considered a type of wetland habitat.

4.1.4 Ornamental Plantings

Non-native plant species were installed along slopes adjacent to the roadways of the project design feature, MM-TRA-2, and MM-TRA-3 survey areas. Common plants installed in this

land cover type include eucalyptus trees (*Eucalyptus* spp.), sea fig (*Carpobrotus edulis*), vanilla scented wattle (*Acacia redeolons*), plumbago (*Plumbago auriculata*), and Aleppo pine (*Pinus hallipensis*).

4.1.5 Developed Land (Disturbed Land)

Developed land refers to the existing paved roadways and development that occur within the four survey areas. These roadways include SR-56, Black Mountain Road, freeway on-ramps, and residential neighborhoods. No vegetation occurs on the developed areas.

4.2 Zoology

A list of the wildlife species detected in the survey areas is provided in Attachment 2. A general discussion of wildlife usage in the survey areas is presented below.

4.2.1 Amphibians

Most amphibians require moisture for at least a portion of their lifecycle, with many requiring a permanent water source for habitat and reproduction. Terrestrial amphibians have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. These species avoid desiccation by burrowing beneath the soil or leaf litter during the day and during the dry season. No amphibians were detected during field surveys, but common amphibians such as Pacific tree frog (*Pseudacris regilla*) and California toad (*Anaxyrus boreas halophilus*) have a moderate potential to occur in the freshwater marsh and southern willow scrub habitat along the creek beneath the SR-56 bridge.

4.2.2 Reptiles

The diversity and abundance of reptile species vary with habitat type. Many reptiles are restricted to certain plant communities and soil types although some of these species will also forage in adjacent communities. Other species are more ubiquitous using a variety of vegetation types for foraging and shelter. No reptile species were observed in the survey area. However, the sites may support common reptile species such as common side-blotched lizard (*Uta stansburiana*), San Diego alligator lizard (*Elgaria multicarinata webbiai*), and western fence lizard (*Sceloporus occidentalis*).

4.2.3 Birds

The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities present on a site. High-quality vegetation communities typically support a moderate to high variety of bird species. The scrub and woodland habitats provide foraging and shelter opportunities for a wide variety of bird species. Disturbed and developed lands are used by bird species adapted to urban settings.

The most commonly observed species within the survey area include house finch (*Haemorhous mexicanus frontalis*), song sparrow (*Melospiza melodia*), yellow-rumped warbler (*Setophaga coronata*), and northern mockingbird (*Mimus polyglottos*).

4.2.4 Mammals

Most mammal species are nocturnal; therefore, their presence is detected during daytime surveys by observing their sign, such as tracks, scat, and burrows. One mammal species was detected within the MM-TRA-2 survey area of the SR-56 bridge: coyote (*Canis latrans*). There is the potential for small mammals such as mice, gophers, and ground squirrels to occur in the vegetated portions of the survey areas.

4.3 Multi-Habitat Planning Area

Multi-Habitat Planning Area (MHPA) lands are those that have been included within the City's Multiple Species Conservation Program (MSCP) Subarea Plan for habitat conservation. These lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. MHPA lands are considered by the City of San Diego to be a sensitive biological resource. None of the four survey areas occur within or are immediately adjacent to the MHPA.

5.0 Sensitive Biological Resources

5.1 Sensitivity Criteria

For purposes of this report, species will be considered sensitive if they are: (1) covered species or narrow endemic species under the City of San Diego MSCP, (2) listed by state or federal agencies as threatened or endangered or are proposed for listing; (3) on California Rare Plant Rank 1B (considered endangered throughout its range) or California Rare Plant Rank 2 (considered endangered in California but more common elsewhere) of the CNPS Inventory of Rare and Endangered Vascular Plants of California (2007); or (4) considered rare, endangered, or threatened by the CNDDB (State of California 2012c), the City of San Diego's biology guidelines (City of San Diego 2012), or local conservation organizations or specialists. Noteworthy plant species are considered to be those that are on California Rare Plant Rank 3 (more information about the plant's distribution and rarity needed) and California Rare Plant Rank 4 (plants of limited distribution) of the CNPS Inventory. Sensitive vegetation communities are those identified by the CNDDB (Holland 1986) or identified by the City of San Diego (2012).

Under Section 3503 of the California Department of Wildlife (CDFW) Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.3 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (raptors) or Strigiformes (owls), or of their nests and eggs (CDFW

1991). The Migratory Bird Treaty Act of 1918 (MBTA) was established to provide protection to the breeding activities of migratory birds throughout the United States. The MBTA protects migratory birds and their breeding activities from take and harassment.

All wetland areas and non-wetland waters of the U.S. are considered sensitive. Wetlands and non-wetland waters are under the jurisdiction of the U.S. Army Corps of Engineers (ACOE). Streambeds and associated vegetation are under the jurisdiction of CDFW. The City of San Diego defines wetlands as:

1. All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation;
2. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation; and
3. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands (City of San Diego 2012).

Assessments for the potential occurrence of sensitive species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDDB, and species occurrence records from other sites in the vicinity of the project site.

5.2 Sensitive Vegetation Communities

Three vegetation communities identified in the survey areas are considered sensitive or regulated by the City of San Diego (2012). Coastal sage scrub is a Tier II uncommon upland and both freshwater marsh and southern willow scrub are considered wetland habitats.

5.3 Sensitive Plants

Three sensitive plant species were observed in the survey areas. None of these three species is a federal or state listed species. Scattered individuals of Torrey pine (*Pinus torreyana* ssp. *torreyana*), a CNPS List 1B.2 and MSCP covered species, were planted along the slopes adjacent to SR-56 within the MM-TRA-2 survey area, but are not part of a natural population. San Diego marsh elder, a CNPS List 2B.2 species, occurs as scattered individuals along the creek beneath the SR-56 bridge within the MM-TRA-2 survey area. Lastly, scattered individuals of southwestern spiny rush, a CNPS List 4.2 species, occur along the margins of the freshwater marsh associated with the creek beneath the SR-56 bridge.

As the other survey areas occur adjacent to existing roadways that have been altered during the construction of these roads, no sensitive species are expected to occur in these areas. A list of sensitive plant species known to occur in the vicinity of the survey areas (within one mile) that are state or federally listed as threatened or endangered, considered

a City of San Diego narrow endemic, or that have potential to occur based on species range are addressed in Attachment 3.

5.4 Sensitive Wildlife Species

No sensitive wildlife species were detected during the surveys; however, nine species have a moderate potential to occur in low numbers within the coastal sage scrub habitat in the MM-TRA-2 survey area. Two sensitive lizard species, Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*) and coastal whiptail (*Aspidoscelis tigris stejnegeri*), and two sensitive snake species, two-striped gartersnake (*Thamnophis hammondi*) and red diamond rattlesnake (*Crotalus ruber*), are CDFW species of special concern that may occur in the coastal sage scrub habitat.

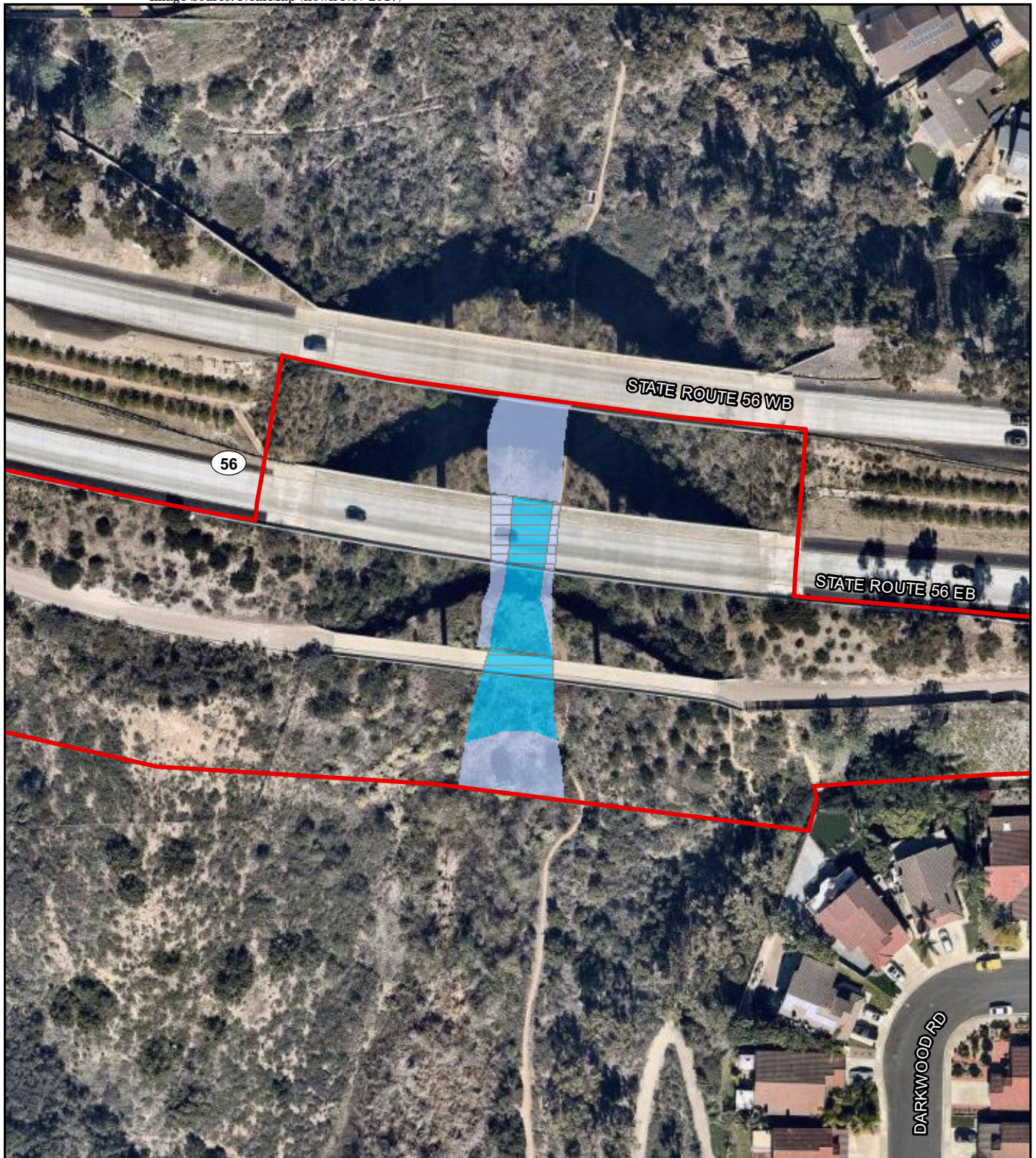
Sensitive hawk species such as the Cooper's hawk (*Accipiter cooperi*) and sharp-shinned hawk (*Accipiter striatus velox*) have a moderate potential to nest in the willow scrub habitat beneath the SR-56 bridge. Other sensitive bird species such as the southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) and coastal California gnatcatcher (*Poliophtila californica californica*; federal listed threatened, CDFW species of species concern) may occur in the coastal sage scrub habitat; however, due to the proximity of the habitat to SR-56, the habitat beneath the bridge may be the only location where these two species have the potential to be found.


One sensitive mammal species, southern mule deer (*Odocoileus hemionus fuliginata*), has the potential to use the coastal sage scrub and riparian scrub habitats beneath the SR-56 bridge. As this area occurs in the upper part of a canyon surrounded by development, mule deer are not expected in large numbers.

The other survey areas are not expected to support sensitive wildlife species due to the lack of native habitat and the proximity to existing roadways and developed areas. A list of sensitive wildlife species known to occur in the vicinity of the survey areas (within one mile) that are federally listed threatened or endangered or that have potential to occur based on species range are addressed in Attachment 4.





5.5 Wetlands

A wetland delineation was conducted in the MM-TRA-2 survey area (Attachment 5). Wetlands are associated with the creek that flows under the SR-56 bridge. Wetland waters of the U.S. (ACOE), waters of the state (CDFW and Regional Water Quality Control Board [RWQCB]), and City of San Diego wetlands all occur in this area (Figure 5). Wetland vegetation makes up the plant species found in the freshwater marsh and southern willow scrub (riparian scrub) habitats. A total of 0.34 acre of wetland comprised of 0.15 acre of freshwater marsh and 0.19 acre of southern willow scrub occur in the MM-TRA-2 survey area and fall under the jurisdiction of the ACOE, CDFW, RWQCB, and City of San Diego. No wetlands occur in the survey areas of the project design feature, MM-TRA-1, and MM-TRA-3.



 Survey Area

ACOE, CDFW, RWQCB, City of San Diego Wetland Jurisdictional Habitat

-  Freshwater Marsh
-  Freshwater Marsh (under bridge)
-  Southern Willow Scrub
-  Southern Willow Scrub (under bridge)

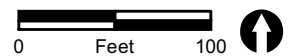


FIGURE 5

Location of Jurisdictional Waters
within the MM-TRA-2 Survey Area

6.0 Project Impacts

Impacts to biological resources from the four roadway improvements are discussed below. Direct and indirect impacts to vegetation/land cover types and sensitive biological resources are covered.

6.1 Direct Impacts

6.1.1 Vegetation Communities

Direct impacts to vegetation communities and land cover types that would occur under each roadway improvement are presented in Table 2 and illustrated on Figures 6a, 6b, and 6c. Impacts to sensitive vegetation communities (i.e., coastal sage scrub, freshwater marsh, and southern willow scrub) would be significant and require mitigation. All impacts would occur outside of the MHPA.

Table 2 Summary of Impacts to Vegetation and Land Cover Types by Survey Area (acres)					
Vegetation Communities/ Land Cover Types	Survey Area				
	Project Design Feature	MM- TRA-1	MM- TRA-2	MM- TRA-3	Total Impact
Coastal Sage Scrub (Tier II)					
Permanent	--	--	0.20	--	0.20
Construction Zone	--	--	1.06	--	1.06
Freshwater Marsh (Wetland)					
Permanent	--	--	0.01	--	0.01
Construction Zone	--	--	0.04	--	0.04
Southern Willow Scrub (Wetland)					
Permanent	--	--	--	--	--
Construction Zone	--	--	0.11	--	0.11
Ornamental Plantings (Tier IV)					
Permanent	0.31	--	0.07	0.30	0.68
Construction Zone	0.25	--	0.30	0.55	1.10
Developed Land (Tier IV)					
Permanent	0.02	0.001	0.20	--	0.22
Construction Zone	0.01	--	0.22	--	0.23
TOTAL	0.59	0.001	2.21	0.85	3.65

Image source: NearMap (flown Nov 2017)

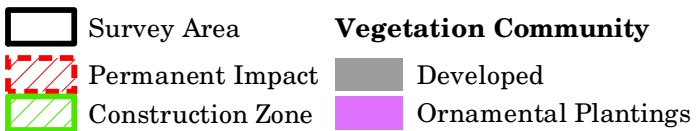


FIGURE 6a

Vegetation Community and Land Cover Type
Impacts at Project Design Feature and MM-TRA-1

Image source: NearMap (flown Nov 2017)

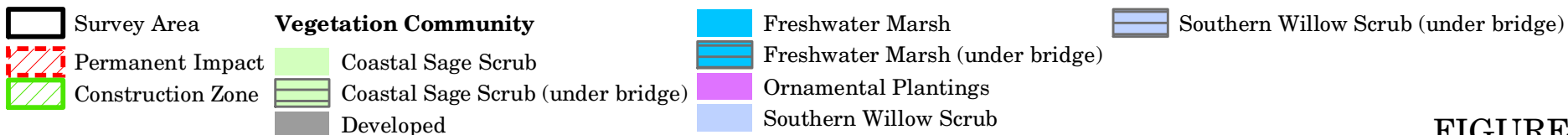
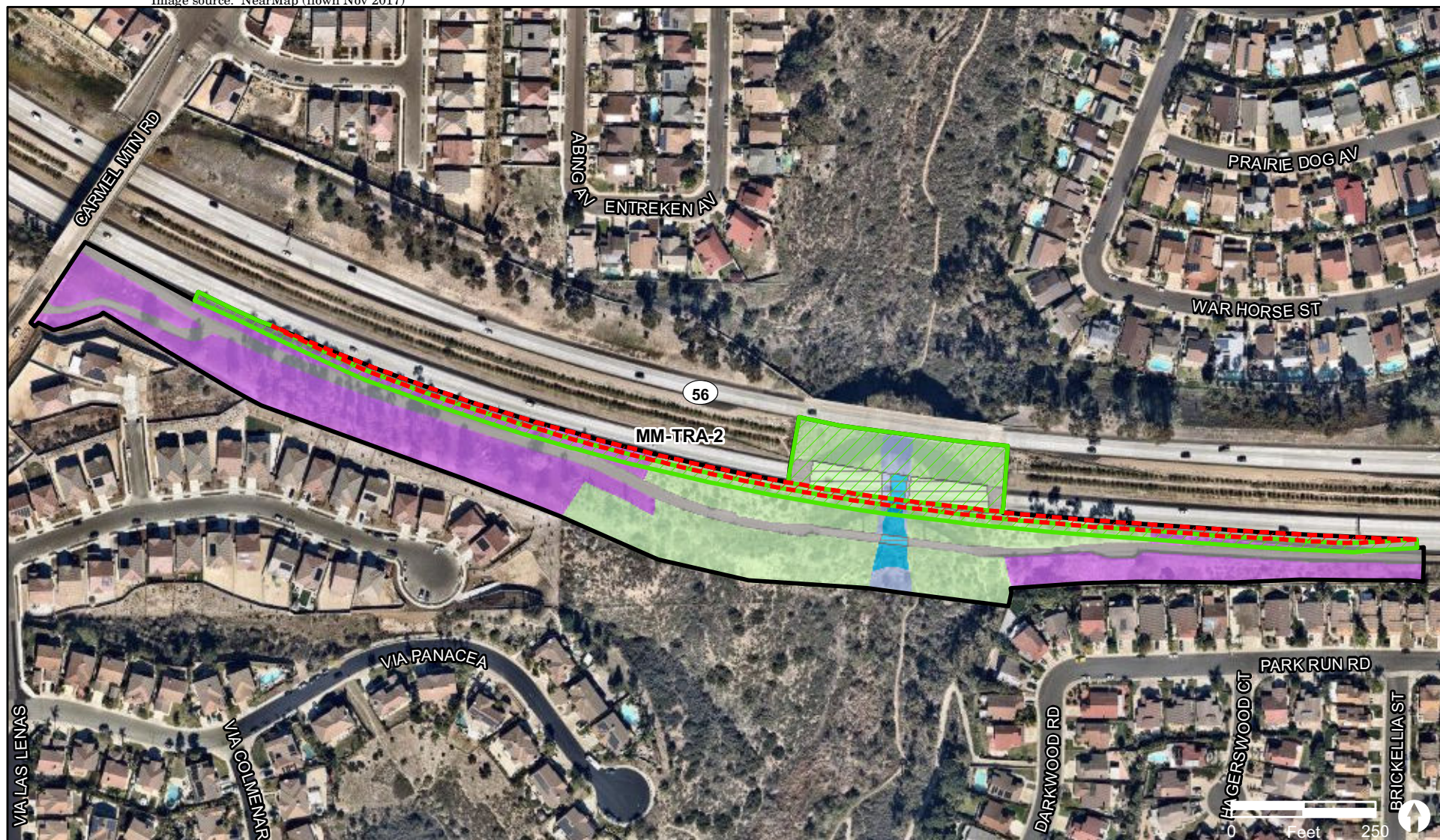


FIGURE 6b

Vegetation Community and Land Cover Type
Impacts at MM-TRA-2

Image source: NearMap (flown Nov 2017)

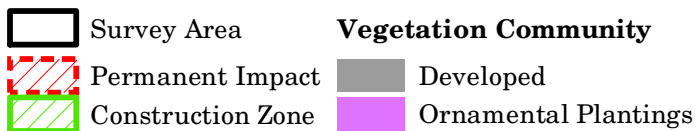


FIGURE 6c

Vegetation Community and Land Cover Type
Impacts at MM-TRA-3

6.1.2 Sensitive Plants

The project has the potential to impact a low number of individuals (i.e., less than 10) of San Diego marsh elder and southwestern spiny rush, depending on the final project design and footprint. However, the potential small losses of these two species would not reduce overall population numbers, both locally or regionally. The project would only potentially affect a very small portion of the range of these species due to possible minor losses of suitable habitat, and adequate habitat for these species is conserved regionally under the MSCP. Therefore, impacts on sensitive plants would be less than significant.

6.1.3 Sensitive Wildlife

6.1.3.1 General Wildlife

Implementation of the roadway improvements may cause small mammals and reptiles with low mobility to be inadvertently killed during construction. Most birds will be able to move out of the way during grading. However, these species do not meet the criteria for sensitive species presented in Section 5.1, and impacts to general wildlife would be less than significant.

6.1.3.2 Sensitive Wildlife Species

The Belding's orange-throated whiptail, Cooper's hawk, southern California rufous-crowned sparrow, coastal California gnatcatcher, and southern mule deer are considered covered species under the City of San Diego's MSCP (City of San Diego 1997). As the roadway improvement areas are located outside of the MHPA and are not adjacent to an MHPA preserve area, potential impacts to these species would be less than significant. Potential impacts to non-covered species coastal whiptail, two-striped gartersnake, red diamond rattlesnake, and sharp-shinned hawk, if present, would likely only result in the loss of one individual of any of these species. Thus, the overall population level effect locally and regionally would be minimal for any of the species. Only a small fraction of the range of any of these four species would be affected and a very minor loss of habitat would occur. As the project occurs within existing road corridors where habitat for these species is marginal due to proximity to development and road edge effects, regional effects on these species would be very minor as adequate habitat for these species is conserved under the MSCP. Therefore, impacts on sensitive wildlife would be less than significant.

6.1.3.3 Nesting Birds

There is a potential for raptors and other birds to nest in the ornamental trees, shrubs, and in the native habitats within the footprints of the project design feature, TRA-2, and TRA-3. However, the project applicant would be required to comply with restrictions associated with nesting bird species per Section 3503 of the California Fish and Game Code and the MBTA. Under Section 3503 of the CDFW Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.3 of the California Fish and Game Code

prohibits take, possession, or destruction of any birds in the orders Falconiformes (raptors) or Strigiformes (owls), or of their nests and eggs. The MBTA was established to provide protection to the breeding activities of migratory birds throughout the United States. The MBTA protects migratory birds and their breeding activities from take and harassment. Therefore, impacts to migratory or nesting birds would be less than significant.

6.1.4 Wetlands

Wetlands may be impacted as part of the SR-56 bridge expansion associated with MM-TRA-2 (Table 3). Wetland impacts could occur to freshwater marsh and southern willow scrub habitats. These wetland habitats are under the jurisdiction of the ACOE, RWQCB, CDFW, and City of San Diego. Impacts to jurisdictional wetlands would be significant and require mitigation.

Table 3 Summary of Potential Impacts to Wetlands by Survey Area (acres)					
Wetlands	Survey Area				
	Project Design Feature	MM-TRA-1	MM-TRA-2	MM-TRA-3	Total Impact
Federal Wetland (ACOE)					
Permanent	--	--	0.01	--	0.01
Construction Zone	--	--	0.15	--	0.15
State Wetland (CDFW, RWQCB)					
Permanent	--	--	0.01	--	0.01
Construction Zone	--	--	0.15	--	0.15
City Wetland					
Permanent	--	--	0.01	--	0.01
Construction Zone	--	--	0.15	--	0.15

6.2 Indirect Impacts

No indirect impacts to sensitive wildlife species are anticipated.

7.0 Mitigation

Impacts to biological resources were evaluated through review of the project's consistency with the City's Environmentally Sensitive Lands (ESL) Regulations and Biology Guidelines, as well as the MSCP Subarea Plan. As such, mitigation is required for project impacts that are considered significant under the California Environmental Quality Act (CEQA; City of San Diego 2011), including impacts to sensitive or listed species and sensitive vegetation communities. All impacts to sensitive biological resources should be avoided to the maximum extent feasible and minimized when possible. Mitigation measures typically employed include resource avoidance, dedication/acquisition of habitat, or habitat restoration.

The impact analysis and corresponding mitigation measures presented in this Biological Technical Report are based on conceptual designs of the project design feature and MM-TRA-1 through MM-TRA-3 that would be refined at a later date. Therefore, future implementation of the project design feature and MM-TRA-1 through MM-TRA-3 would require further refinements. These refinements would require compliance with the programmatic biological resources mitigation framework presented below. Compliance with this mitigation framework would include preparation of an updated biological technical report to document biological conditions, analyze potential impacts, and propose site-specific mitigation measures.

7.1 Mitigation for Impacts to Sensitive Upland Vegetation Communities

MM-BIO-1a: Biological Technical Report

Any future discretionary actions associated with the future construction of the project design feature and MM-TRA-1 through MM-TRA-3 shall be required to prepare a site-specific biological technical report consistent with the City's Biology Guidelines to ensure that potentially significant impacts to unique, rare, endangered, sensitive, or fully protected species of plants or animals, if present within the area of potential effect.

MM-BIO-1b: Sensitive Habitat

Any future discretionary actions associated with the future construction of the project design feature and MM-TRA-1 through MM-TRA-3 resulting in impacts to sensitive upland Tier I, II, IIIA, or IIIB habitats shall occur in accordance with the mitigation ratios specified within the City's Biology Guidelines as presented in Table 4.

Table 4					
Mitigation Ratios for Impacts on Upland Vegetation Communities and Land Cover Types					
Tier	Habitat Type	Mitigation Ratios			
TIER I (rare uplands)	Southern Foredunes	Location of Impact	Inside Outside	Location of Preservation	
	Torrey Pines Forest			Inside	Outside
	Coastal Bluff Scrub			2:1	3:1
	Maritime Succulent Scrub			1 :1	2: 1
	Maritime Chaparral				
	Scrub Oak Chaparral				
	Native Grassland				
	Oak Woodlands				
TIER II (uncommon uplands)	Diegan Coastal Sage Scrub	Location of impact	Inside* Outside	Location of Preservation	
	Diegan Coastal Sage Scrub/ Chaparral			Inside	Outside
				1:1	2:1
				1:1	1.5:1
TIER IIIA (common uplands)	Chamise Chaparral	Location of impact	Inside* Outside	Location of Preservation	
	Southern Mixed Chaparral			Inside	Outside
				21:1	31.5:1
				1-0.5:1	21:1
TIER IIIB (common uplands)	Non-native Grassland	Location of impact	Inside* Outside	Location of Preservation	
				Inside	Outside
				0.5:1	1.5:1
Notes:					
For all Tier I impacts, the mitigation could (1) occur within the MHPA portion of Tier I or (2) occur outside of the MHPA within the affected habitat type (in-kind).					
For impacts on Tier II, IIIA, and IIIB habitats, the mitigation could (1) occur within the MHPA portion of Tiers I- III (out-of-kind) or (2) occur outside of the MHPA within the affected habitat type (in-kind). Project-specific mitigation will be subject to applicable mitigation ratios at the time of project submittal.					

7.2 Mitigation for Impacts to Wetlands

MM-BIO-2a: Wetland Habitat

Any future discretionary actions associated with the future construction of the project design feature and MM-TRA-1 through MM-TRA-3 resulting in impacts to sensitive wetlands shall occur in accordance with the mitigation ratios specified within the City's Biology Guidelines as shown in Tables 5 and 6 below.

Table 5 Wetland Mitigation Ratios Including Biologically Superior Design	
Habitat Type	Mitigation Ratio
Riparian Habitats:	
- Oak riparian forest	3:1
- Riparian forest or woodland	3:1
- Riparian scrub	2:1
- Riparian scrub in the Coastal Overlay Zone	3:1
Freshwater Marsh	2:1
Freshwater Marsh in the Coastal Overlay Zone	4:1
Natural Flood Channel	2:1
Disturbed Wetland	2:1
Notes:	
Any impacts to wetlands must be mitigated “in-kind” and achieve a “no -net loss” of wetland function and values except as provided for in Section 3B (Economic Viability Option).	
Mitigation for vernal pools can range from 2:1 when no listed species are present, up to 4:1 when listed species with very limited distributions (e.g., <i>Pogogyne abramsii</i>) are present.	

Table 6 Wetland Mitigation Ratios for a Biologically Superior Project Outside of the Coastal Zone	
Habitat Type	Mitigation Ratio
Riparian Forest or Woodland (oak, sycamore, or willow)	6:1
Riparian Scrub	4:1
Freshwater Marsh	4:1
Natural Flood Channel (NFC)*	4:1
Disturbed Wetlands*	4:1
Notes:	
Mitigation must be provided within or adjacent to the MHPA.	
Any impacts to wetlands must be mitigated “in -kind” and achieve a “no -net loss” of wetland functions and values. Mitigation for vernal pools can range from 4:1 when no listed species are present, and up to 8:1 when listed species with very limited distributions (e.g., <i>Pogogyne abramsii</i>) are present.	
*Preference for these habitats is out -of-kind mitigation with better habitat. In -kind (e.g., NFC for NFC) could be considered where it would clearly benefit sensitive species and results in a biologically superior alternative.	

MM-BIO-2b: Wetland Habitat

Prior to the commencement of any construction-related activities on-site for projects impacting wetland habitat the applicant shall provide evidence of the following, if applicable, to the Assistant Deputy Director (ADD)/Environmental Designee prior to any construction activity:

- Compliance with U.S. Army Corps of Engineers Section 404 nationwide permit;
- Compliance with the RWQCB Section 401 Water Quality Certification; and
- Compliance with the CDFW Section 1601/1603 Streambed Alteration Agreement.
- Compliance with City ESL wetland deviation process.

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ATTACHMENTS

ATTACHMENT 1

Plant Wildlife Species Observed

Attachment 1
Plant Species Observed

Scientific Name	Common Name	Habitat	Origin
GYMNOSPERMS			
PINACEAE	PINE FAMILY		
<i>Pinus halepensis</i> Mill.	Aleppo pine	OP	I
<i>Pinus torreyana</i> Parry ex Carrière ssp. <i>torreyana</i>	Torrey pine	OP	I
ANGIOSPERMS: MONOCOTS			
ARECACEAE	PALM FAMILY		
<i>Washingtonia robusta</i> H. Wendl.	Mexican fan palm	OP , WS	I
CYPERACEAE	SEDGE FAMILY		
<i>Bolboschoenus maritimus</i> (L.) Palla ssp. <i>paludosus</i> (A. Nelson) T. Koyama [= <i>Scirpus maritimus</i>]	saltmarsh bulrush, alkali bulrush	FM	N
JUNCACEAE	RUSH FAMILY		
<i>Juncus acutus</i> L. ssp. <i>leopoldii</i> (Parl.) Snogerup	southwestern spiny rush	FM, WS	N
POACEAE (GRAMINEAE)	GRASS FAMILY		
<i>Avena barbata</i> Pott ex Link	slender wild oat	OP	I
<i>Bromus diandrus</i> Roth	ripgut grass	OP	I
<i>Cortaderia selloana</i> (Schult. & Schult. f.) Asch. & Graebn.	pampas grass	OP	I
<i>Pennisetum villosum</i> R. Br. ex Fresen.	feathertop	OP	I
<i>Stipa</i> [= <i>Nassella</i>] <i>pulchra</i> Hitchc.	purple needle grass	CSS	N
TYPHACEAE	CATTAIL FAMILY		
<i>Typha latifolia</i> L.	broad-leaved cattail	FM	N
AIZOACEAE	FIG-MARIGOLD FAMILY		
<i>Carpobrotus chilensis</i> (Molina) N.E. Br.	sea fig	OP	I
<i>Carpobrotus edulis</i> (L.) N.E. Br.	freeway iceplant	OP	I
<i>Mesembryanthemum nodiflorum</i> L.	slender-leaved iceplant	OP	I
ANACARDIACEAE	SUMAC OR CASHEW FAMILY		
<i>Malosma laurina</i> Nutt. ex Abrams	laurel sumac	CSS	N
<i>Rhus integrifolia</i> (Nutt.) Benth. & Hook. f. ex Rothr.	lemonade berry	CSS	N
APIACEAE (UMBELLIFERAE)	CARROT FAMILY		
<i>Apium graveolens</i> L.	celery	FM	I
APOCYNACEAE	DOGBANE FAMILY		
<i>Nerium oleander</i> L.	common oleander	OP	I

**Attachment 1
Plant Species Observed**

Scientific Name	Common Name	Habitat	Origin
ASTERACEAE	SUNFLOWER FAMILY		
<i>Artemisia californica</i> Less.	California sagebrush	CSS	N
<i>Baccharis pilularis</i> DC.	chaparral broom, coyote brush	OP, CSS	N
<i>Baccharis salicifolia</i> (Ruiz & Pav.) Pers. ssp. <i>salicifolia</i>	mule fat, seep-willow	WS	N
<i>Centaurea melitensis</i> L.	tochalote, Maltese star-thistle	OP	I
<i>Deinandra</i> [= <i>Hemizonia</i>] <i>fasciculata</i> (DC.) Greene	fascicled tarweed	CSS	N
<i>Dittrichia graveolens</i> (L.) Greuter	stinkwort	OP	I
<i>Encelia californica</i> Nutt.	California encelia	CSS	N
<i>Erigeron</i> [= <i>Conyza</i>] <i>canadensis</i> L.	horseweed	OP	N
<i>Helminthotheca</i> [= <i>Picris</i>] <i>echioides</i> (L.) Holub	bristly ox-tongue	WS	I
<i>Heterotheca grandiflora</i> Nutt.	telegraph weed	OP, CSS	N
<i>Isocoma menziesii</i> (Hook. & Arn.) G.L. Nesom	coastal goldenbush	CSS	N
<i>Iva hayesiana</i> A. Gray	San Diego marsh-elder	FM, WS	N
BORAGINACEAE	BORAGE FAMILY		
<i>Heliotropium curassavicum</i> L. var. <i>oculatum</i> (A. Heller) I. M. Johnst. ex Tidestr.	seaside heliotrope, alkali heliotrope	FM	N
FABACEAE (LEGUMINOSAE)	LEGUME FAMILY		
<i>Acacia redolens</i> Maslin	vanilla-scented wattle	OP	I
GERANIACEAE	GERANIUM FAMILY		
<i>Geranium dissectum</i> L.	cut-leaf geranium	OP	I
LAMIACEAE	MINT FAMILY		
<i>Salvia mellifera</i> Greene	black sage	CSS	N
MYRTACEAE	MYRTLE FAMILY		
<i>Eucalyptus</i> sp.	gum tree	OP	I
POLYGONACEAE	BUCKWHEAT FAMILY		
<i>Eriogonum fasciculatum</i> Benth.	California buckwheat	CSS	N
<i>Rumex crispus</i> L.	curly dock	FM, WS	I
ROSACEAE	ROSE FAMILY		
<i>Heteromeles arbutifolia</i> (Lindl.) M. Roem.	toyon, Christmas berry	CSS	N
SALICACEAE	WILLOW FAMILY		
<i>Salix gooddingii</i> C.R. Ball.	Goodding's black willow	WS	N
<i>Salix laevigata</i> Bebb	red willow	WS	N

Attachment 1 Plant Species Observed			
Scientific Name	Common Name	Habitat	Origin
<i>Salix lasiolepis</i> Benth.	arroyo willow	WS	N
TAMARICACEAE	TAMARISK FAMILY		
<i>Tamarix ramosissima</i> Ledeb.	saltcedar	WS	I
<p><i>Notes:</i> Scientific and common names were primarily derived from the Jepson Online Interchange (University of California 2016). In instances where common names were not provided in this resource, common names were obtained from Rebman and Simpson (2014). Additional common names were obtained from the USDA maintained database (U0053DA 2013) or the Sunset Western Garden Book (Brenzel 2001) for ornamental/horticultural plants. Common names denoted with * are from County of San Diego 2010.</p> <div> <div> HABITATS CSS = Coastal Sage Scrub FM = Freshwater Marsh WS = Willow Scrub OP = Ornamental Planting </div> <div> ORIGIN N = Native to locality I = Introduced species from outside locality </div> </div>			

ATTACHMENT 2

Wildlife Species Observed

**Attachment 2
Wildlife Species Observed**

Scientific Name	Common Name	Occupied Habitat	On-Site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
BIRDS (Nomenclature from American Ornithologists' Union 2015 and Unitt 2004)				
TROCHILIDAE	HUMMINGBIRDS			
<i>Calypte anna</i>	Anna's hummingbird	CSS, OP	C / Y	O
TYRANNIDAE	TYRANT FLYCATCHERS			
<i>Sayornis nigricans semiatra</i>	black phoebe	CSS, OP	C / Y	O
<i>Sayornis saya</i>	Say's phoebe	CSS, OP	U / W	O
<i>Tyrannus verticalis</i>	western kingbird	CSS, OP	F / S	O
CORVIDAE	CROWS, JAYS, & MAGPIES			
<i>Corvus brachyrhynchos hesperis</i>	American crow	CSS, OP	C / Y	O
MIMIDAE	MOCKINGBIRDS & THRASHERS			
<i>Mimus polyglottos polyglottos</i>	northern mockingbird	CSS, OP	C / Y	O
PARULIDAE	WOOD WARBLERS			
<i>Setophaga [=Dendroica] coronata</i>	yellow-rumped warbler	WS	U/ W	O
EMBERIZIDAE	EMBERIZIDS			
<i>Melospiza melodia</i>	song sparrow	CSS, OP	C / Y	O
FRINGILLIDAE	FINCHES			
<i>Spinus [=Carduelis] psaltria hesperophilus</i>	lesser goldfinch	WS	F / Y	O
<i>Haemorhous [=Carpodacus] mexicanus frontalis</i>	house finch	OP	C / Y	O
MAMMALS (Nomenclature from Baker et al. 2003)				
CANIDAE	CANIDS			
<i>Canis latrans</i>	coyote	CSS		S
HABITATS CSS = Bays WS = Coastal waters OP = Coastal strand, coastal dunes SEASONALITY (birds only) W = Winter visitor; does not breed locally Y = Year-round resident; probable breeder on-site or in vicinity				
ABUNDANCE (birds only; based on Garrett and Dunn 1981) C = Common to abundant; almost always encountered in proper habitat, usually in moderate to large numbers F = Fairly common; usually encountered in proper habitat, generally not in large numbers U = Uncommon; occurs in small numbers or only locally EVIDENCE OF OCCURRENCE O = Observed S = Scat				

ATTACHMENT 3

Sensitive Plant Species Observed or with the Potential for
Occurrence

Attachment 3
Sensitive Plant Species
Observed or with the Potential for Occurrence

Species' <i>Scientific Name</i> Common Name	State/Federal Status	CNPS Rank	City of San Diego	Habitat/ Preference/Requirements/ Blooming Period	Observed?	Basis for Determination of Occurrence Potential
GYMNOSPERMS						
PINACEAE PINE FAMILY						
<i>Pinus torreyana</i> ssp. <i>torreyana</i> Torrey pine (native pop.)	—/—	1B.2	MSCP	Evergreen tree; closed-cone coniferous forest, chaparral; sandstone; elevation 250–525 feet. San Diego County endemic. There are approximately 7,000 native trees, most in Torrey Pines State Reserve, others on private property. This species is widely planted as an ornamental in the region.	Yes	Along slopes adjacent to State Route 56 (SR-56) near bridge. Planted stands/individuals are typically not considered sensitive.
ANGIOSPERMS: DICOTS						
CHENOPODIACEAE GOOSEFOOT FAMILY						
<i>Aphanisma blitoides</i> aphanisma	—/—	1B.2	NE, MSCP	Annual herb; coastal bluff scrub, coastal sage scrub; sandy soils; blooms March–June; elevation less than 1,000 feet.	No	Low potential. Sites lack suitable habitat and soils.
APIACEAE CARROT FAMILY						
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	CE/FE	1B.1	NE, MSCP	Biennial/perennial herb; vernal pools, mesic areas of coastal sage scrub and grasslands, blooms April–June; elevation less than 2,000 feet. Known from San Diego and Riverside counties. Additional populations occur in Baja California, Mexico.	No	Low potential. Sites lack suitable habitat and soils.

Attachment 3
Sensitive Plant Species
Observed or with the Potential for Occurrence

Species' <i>Scientific Name</i> Common Name	State/Federal Status	CNPS Rank	City of San Diego	Habitat/ Preference/Requirements/ Blooming Period	Observed?	Basis for Determination of Occurrence Potential
ASTERACEAE SUNFLOWER FAMILY						
<i>Ambrosia pumila</i> San Diego ambrosia	–/FE	1B.1	NE, MSCP	Perennial herb (rhizomatous); chaparral, coastal sage scrub, valley and foothill grasslands, creek beds, vernal pools, often in disturbed areas; blooms May–September; elevation less than 1,400 feet. Many occurrences extirpated in San Diego County.	No	Low potential. Sites lack suitable habitat and soils.
<i>Baccharis vanessae</i> Encinitas baccharis [=Encinitas coyote brush]	CE/FT	1B.1	NE, MSCP	Perennial deciduous shrub; chaparral; maritime; sandstone; blooms August–November; elevation less than 2,500 feet. San Diego County endemic. Known from fewer than 20 occurrences. Extirpated from Encinitas area.	No	Low potential. Sites lack suitable habitat and soils.
<i>Deinandra</i> [=Hemizonia] <i>conjugens</i> Otay tarplant	CE/FT	1B.1	NE, MSCP	Annual herb; clayey soils of coastal scrub openings, valley and foothill grassland; blooms April–June, elevation less than 1,000 feet.	No	Low potential. Sites lack suitable habitat and soils.
<i>Iva hayesiana</i> San Diego marsh-elder	–/–	2B.2	–	Perennial herb; marshes and swamps, playas, riparian areas; blooms April–September; elevation below 1,700 feet.	Yes	Observed in low numbers along creek beneath SR-56 bridge.
CACTACEAE CACTUS FAMILY						
<i>Cylindropuntia californica</i> var. <i>californica</i> [=Opuntia <i>parryi</i> var. <i>serpentina</i>] snake cholla	–/–	1B.1	NE, MSCP	Perennial stem succulent; chaparral, coastal sage scrub; blooms April–May; elevation 100–500 feet.	No	Low potential. Easily observed if present.
<i>Ferocactus viridescens</i> San Diego barrel cactus	–/–	2B.1	MSCP	Perennial stem succulent; chaparral, coastal sage scrub, valley and foothill grasslands, vernal pools; blooms May–June; elevation less than 1,500 feet.	No	Low potential. Easily observed if present.

Attachment 3
Sensitive Plant Species
Observed or with the Potential for Occurrence

Species' <i>Scientific Name</i> Common Name	State/Federal Status	CNPS Rank	City of San Diego	Habitat/ Preference/Requirements/ Blooming Period	Observed?	Basis for Determination of Occurrence Potential
CRASSULACEAE STONECROP FAMILY						
<i>Dudleya brevifolia</i> [= <i>D. blochmaniae</i> ssp. <i>brevifolia</i>] short-leaved dudleya [short-leaved live-forever]	CE/–	1B.1	NE, MSCP	Perennial herb; southern maritime chaparral, coastal sage scrub on Torrey sandstone; blooms in April; elevation less than 1,000 feet. San Diego County endemic. Known from fewer than five occurrences in the Del Mar and La Jolla areas.	No	Low potential. Sites lack suitable habitat and soils.
<i>Dudleya variegata</i> variegated dudleya	–/–	1B.2	NE, MSCP	Perennial herb; openings in chaparral, coastal sage scrub, grasslands, vernal pools; blooms May–June; elevation less than 1,900 feet.	No	Low potential. Sites lack suitable habitat and soils.
FABACEAE LEGUME FAMILY						
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milkvetch	CE/FE	1B.1	NE, MSCP	Annual herb; coastal bluff scrub, coastal dunes, sandy soils, mesic coastal prairie; blooms March–May; elevation less than 200 feet. California endemic. Known from fewer than 10 occurrences in San Diego (presumed extirpated), Los Angeles (presumed extirpated), and Monterey counties.	No	Low potential. Sites lack suitable habitat and soils.
FAGACEAE OAK FAMILY						
<i>Quercus dumosa</i> Nuttall's scrub oak	–/–	1B.1	–	Perennial evergreen shrub; closed-cone coniferous forest, coastal chaparral, coastal sage scrub; sandy and clay loam soils; blooms February–March; elevation less than 1,300 feet.	No	Low potential. Easily observed if present.

Attachment 3
Sensitive Plant Species
Observed or with the Potential for Occurrence

Species' <i>Scientific Name</i> Common Name	State/Federal Status	CNPS Rank	City of San Diego	Habitat/ Preference/Requirements/ Blooming Period	Observed?	Basis for Determination of Occurrence Potential
LAMIACEAE MINT FAMILY						
<i>Acanthomintha ilicifolia</i> San Diego thornmint	CE/FT	1B.1	NE, MSCP	Annual herb; chaparral, coastal sage scrub, and grasslands; friable or broken clay soils; blooms April–June; elevation less than 3,200 feet.	No	Low potential. Sites lack suitable habitat and soils.
<i>Pogogyne abramsii</i> San Diego mesa mint	CE/FE	1B.1	NE, MSCP	Annual herb; vernal pools; blooms April–July; elevation 300–700 feet. San Diego County endemic.	No	Low potential. Sites lack suitable habitat and soils.
<i>Pogogyne nudiuscula</i> Otay mesa mint	CE/FE	1B.1	NE, MSCP	Annual herb; vernal pools; blooms May–July; elevation 300–820 feet. In California, known from approximately 10 occurrences in Otay Mesa in San Diego County. Additional populations occur in Baja California, Mexico.	No	Low potential. Sites lack suitable habitat and soils.
POLEMONIACEAE PHLOX FAMILY						
<i>Navarretia fossalis</i> spreading navarretia [=prostrate navarretia]	–/FT	1B.1	NE, MSCP	Annual herb; vernal pools, marshes and swamps, chenopod scrub; blooms April–June; elevation 100–4,300 feet.	No	Low potential. Sites lack suitable habitat and soils.
RHAMNACEAE BUCKTHORN FAMILY						
<i>Adolphia californica</i> California adolphia	–/–	2B.1	–	Perennial deciduous shrub; Diegan coastal sage scrub and chaparral; clay soils; blooms December–May; elevation 100–2,500 feet.	No	Low potential. Easily observed if present.
ANGIOSPERMS: MONOCOTS						
AGAVACEAE AGAVE FAMILY						
<i>Agave shawii</i> var. <i>shawii</i> Shaw's agave	–/–	2B.1	NE, MSCP	Perennial leaf succulent; coastal bluff scrub, coastal sage scrub, maritime succulent scrub; blooms September–May; elevation less than 400 feet.	No	Low potential. Sites lack suitable habitat and soils.

Attachment 3
Sensitive Plant Species
Observed or with the Potential for Occurrence

Species' <i>Scientific Name</i> Common Name	State/Federal Status	CNPS Rank	City of San Diego	Habitat/ Preference/Requirements/ Blooming Period	Observed?	Basis for Determination of Occurrence Potential
JUNCACEAE RUSH FAMILY						
<i>Juncus acutus</i> ssp. <i>leopoldii</i> southwestern spiny rush	—/—	4.2	—	Perennial herb (rhizomatous); coastal dunes, meadows and seeps, coastal salt marsh, riparian; blooms May–June; elevation less than 3,000 feet.	Yes	Scattered individuals along creek beneath State Route 56 bridge.
POACEAE GRASS FAMILY						
<i>Orcuttia californica</i> California Orcutt grass	CE/FE	1B.1	NE, MSCP	Annual herb; vernal pools; blooms April–August; elevation 50–2,200 feet.	No	Low potential. Sites lack suitable habitat and soils.
FEDERAL CANDIDATES AND LISTED PLANTS				STATE LISTED PLANTS		
FE = Federally listed endangered				CE = State listed endangered		
FT = Federally listed threatened						
CALIFORNIA NATIVE PLANT SOCIETY (CNPS): CALIFORNIA RARE PLANT RANKS (CRPR)						
1A = Species presumed extinct.						
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.						
2A = Plants presumed extirpated in California, but more common elsewhere.						
2B = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.						
3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.						
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.						
.1 = Species seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat).						
.2 = Species fairly threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat).						
.3 = Species not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known).						
CBR = Considered but rejected						
CITY OF SAN DIEGO						
NE = Narrow endemic						
MSCP = Multiple Species Conservation Program covered species						

ATTACHMENT 4

Sensitive Wildlife Species Occurring or with the
Potential to Occur

Attachment 4
Sensitive Wildlife Species Occurring or with the Potential to Occur

Species' Common Name/ Scientific Name	Listing Status	Habitat Preference/ Requirements	Detected On-Site?	Potential to Occur On-Site?	Basis for Determination of Occurrence Potential
IGUANIDAE IGUANID LIZARDS					
Coast horned lizard <i>Phrynosoma blainvillii</i> [= <i>P. coronatum</i> coastal population]	CSC, MSCP, *	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.	No	Low	Soils in the survey areas have been disturbed and are not suitable for this species.
TEIIDAE WHIPTAIL LIZARDS					
Belding's orange-throated whiptail <i>Aspidoscelis hyperythra beldingi</i>	CSC, MSCP	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	No	Moderate	This species was not observed but may occur in low numbers in the coastal sage scrub habitat.
Coastal whiptail <i>Aspidoscelis tigris stejnegeri</i>	CSC	Coastal sage scrub, chaparral, woodlands, and streamsides where plants are sparsely distributed.	No	Moderate	This species was not observed but may occur in low numbers in the coastal sage scrub habitat.
COLUBRIDAE COLUBRID SNAKES					
Two-striped gartersnake <i>Thamnophis hammondi</i>	CSC, *	Permanent freshwater streams with rocky bottoms. Mesic areas.	No	Moderate	This species was not observed but may occur in low numbers in the freshwater marsh beneath the State Route 56 bridge.
CROTALIDAE RATTLESNAKES					
Red diamond rattlesnake <i>Crotalus ruber</i>	CSC	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.	No	Moderate	This species was not observed but may occur in low numbers in the coastal sage scrub habitat.

Attachment 4
Sensitive Wildlife Species Occurring or with the Potential to Occur

Species' Common Name/ Scientific Name	Listing Status	Habitat Preference/ Requirements	Detected On-Site?	Potential to Occur On-Site?	Basis for Determination of Occurrence Potential
BIRDS (Nomenclature from American Ornithologists' Union 2015 and Unitt 2004)					
ACCIPITRIDAE HAWKS, KITES, & EAGLES					
Cooper's hawk (nesting) <i>Accipiter cooperii</i>	WL, MSCP	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas.	No	Moderate	This species was not observed but may use the willow scrub habitat beneath the State Route 56 bridge.
Sharp-shinned hawk (nesting) <i>Accipiter striatus velox</i>	WL	Open deciduous woodlands, forests, edges, parks, residential areas. Migrant and winter visitor.	No	Moderate	This species was not observed but may use the willow scrub habitat beneath the State Route 56 bridge.
SYLVIIDAE GNATCATCHERS					
Coastal California gnatcatcher <i>Poliophtila californica californica</i>	FT, CSC, MSCP	Coastal sage scrub, maritime succulent scrub. Resident.	No	Moderate	This species was not observed but may occur in low numbers in the coastal sage scrub habitat.
EMBERIZIDAE EMBERIZIDS					
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	WL, MSCP	Coastal sage scrub, chaparral, grassland. Resident.	No	Moderate	This species was not observed but may occur in low numbers in the coastal sage scrub habitat.
ICTERIDAE BLACKBIRDS & NEW WORLD ORIOLES					
Tricolored blackbird <i>Agelaius tricolor</i>	CSC, MSCP	Freshwater marshes, agricultural areas, lakeshores, parks. Localized resident.	No	Low	This species was not observed. The freshwater marsh habitat present is likely too small in area to support this species.

Attachment 4
Sensitive Wildlife Species Occurring or with the Potential to Occur

Species' Common Name/ Scientific Name	Listing Status	Habitat Preference/ Requirements	Detected On-Site?	Potential to Occur On-Site?	Basis for Determination of Occurrence Potential
MAMMALS (Nomenclature from Jones et al. 1997 and Hall 1981)					
MURIDAE OLD WORLD MICE & RATS (I)					
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	CSC	Coastal sage scrub and chaparral.	No	Low	This species was not observed in the coastal sage scrub habitat. Woodrat middens are easily observable and none were found in the survey areas.
CERVIDAE DEER					
Southern mule deer <i>Odocoileus hemionus fuliginata</i>	MSCP	Many habitats.	No	Moderate	This species was not observed, but may use the habitats beneath the State Route 56 bridge.
<p>(I) = Introduced species</p> <p>STATUS CODES</p> <p><u>Listed/Proposed</u></p> <p>FT = Listed as threatened by the federal government</p> <p><u>Other</u></p> <p>CSC = California Department of Fish and Wildlife species of special concern</p> <p>WL = California Department of Fish and Wildlife watch list species</p> <p>PSE = Proposed as endangered by the state of California</p> <p>* = Taxa listed with an asterisk fall into one or more of the following categories:</p> <ul style="list-style-type: none"> • Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines • Taxa that are biologically rare, very restricted in distribution, or declining throughout their range • Population(s) in California that may be peripheral to the major portion of a taxon's range but which are threatened with extirpation within California • Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands) 					



**Jurisdictional Waters Delineation for
the Black Mountain Road Community
Plan Amendment Project
San Diego, California**

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A handwritten signature in blue ink that reads "Gerry Scheid".

Gerry Scheid, Senior Biologist

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ATTACHMENT

1: Field Data Sheets	
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Acronyms

ACOE	U.S. Army Corps of Engineers
City	City of San Diego
CDFW	California Department of Fish and Wildlife
CPA	Community Plan Amendment
CWA	Clean Water Act
FAC	facultative
FACU	facultative upland
FACW	facultative wet
GPA	General Plan Amendment
NI	not indicated
OBL	obligate
PFFP	Public Facilities Financing Plan
Project	Black Mountain Road Community Plan Amendment Project
RECON	RECON Environmental, Inc.
RWQCB	Regional Water Quality Control Board
SR-56	State Route 56
TPP	Transportation Phasing Plan
UPL	upland

1.0 Summary of Findings

RECON Environmental, Inc. (RECON) biologists performed a routine wetland delineation on four proposed roadway improvements located within in the city of San Diego, California. After review of the footprints of the proposed roadway improvements, it was determined that only one had the potential to support jurisdictional waters. Methods for delineating wetlands followed guidelines set forth by the U.S. Army Corps of Engineers (ACOE; 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (ACOE 2008).

ACOE federal waters of the U.S., and California Department of Fish and Wildlife (CDFW) and California Regional Water Quality Control Board (RWQCB) waters of the state were all delineated within the project area. ACOE jurisdictional waters of the U.S. total 0.32 acre of wetland on-site. CDFW and RWQCB jurisdictional waters of the state total 0.32 acre of wetland. City of San Diego wetlands in the survey area also total 0.32 acre.

Each of the agencies will verify this delineation during the discretionary review and permitting processes. Under a no-net-loss to wetlands policy, the agencies will require that impacts be avoided and minimized to the greatest extent practicable, and that any unavoidable impacts be mitigated.

2.0 Introduction

The Black Mountain Road Community Plan Amendment (CPA) Project (project) proposes to reclassify Black Mountain Road from a 6-lane Primary Arterial to a 4-lane Major from Twin Trails Drive to the southern boundary of the Rancho Peñasquitos community. The project segment of Black Mountain Road subject to the CPA (project roadway) stretches approximately 1.3 miles from Twin Trails Drive on the north to the southern boundary of the community plan adjacent to the Los Peñasquitos Canyon Preserve. Black Mountain Road currently operates as a 4-lane Major with landscaped center medians, contiguous sidewalks, and Class II bike lanes. The bridge section of Black Mountain Road over State Route 56 (SR-56) is wider and operates as a 5-lane Primary Arterial. The project proposes a General Plan Amendment (GPA) to Figure LU-2, Land Use and Street System Map in the Land Use and Community Planning Element of the General Plan to reclassify the project roadway from a Prime Arterial to a Major Arterial, and a CPA to the Transportation Element of the Rancho Peñasquitos Community Plan to reclassify the project roadway from a 6-lane Primary Arterial to a 4-lane Major¹. The City Planning Commission initiated the Community Plan Amendment on February 27, 2014.

The project proposes the following roadway improvement as a design feature to increase the northbound to westbound left-turn pocket storage and improve the flow of northbound traffic (project design feature):

¹The City of San Diego General Plan and Rancho Peñasquitos Community Plan use different nomenclature for roadway classifications. Consequently, the GPA would reclassify the project roadway as a Major Arterial, and the CPA would reclassify the project roadway as a 4-lane Major.

Restripe the segment of Black Mountain Road between the SR-56 westbound ramps and SR-56 eastbound ramps to include an additional northbound lane along Black Mountain Road from the SR-56 eastbound ramps to the middle of the overpass. To accommodate the additional northbound lane created by this restriping on the overpass, the roadway north of the overpass bridge would need to be widened for northbound traffic. The widening would extend approximately 0.15 mile from the SR-56 westbound off-ramp to the first commercial driveway to the north of the overpass.

The following three roadway improvements identified in the Transportation Impact Study would mitigate traffic impacts associated with the reclassification of the project roadway from a 6-lane Primary Arterial to a 4-lane Major:

- MM-TRA-1: Install a traffic signal at the intersection of Sundance Avenue and Twin Trails Drive.
- MM-TRA-2: Construct a continuous auxiliary lane on eastbound SR-56 from Carmel Mountain Road to approximately 2,182 feet to the east.
- MM-TRA-3: Construct an additional on-ramp lane at the Rancho Peñasquitos Boulevard/SR-56 westbound on-ramp.

Concurrent with the GPA and CPA, the project would also amend the Black Mountain Ranch Subarea Plan and Transportation Phasing Plan (TPP) to remove the requirement to widen the project roadway to a 6-lane Primary Arterial and to add the project design feature and three traffic mitigation measures. As a part of this amendment, the TPP for Black Mountain Ranch would be updated to reflect the project and mitigation measures.

Implementation of the project would subsequently require amending the Rancho Peñasquitos, Black Mountain Ranch, and Pacific Highlands Ranch Public Facilities Financing Plans (PFFPs) to remove the requirement to widen the project roadway to a 6-lane Primary Arterial and to add the project design feature and three traffic mitigation measures. At such time the PFFPs are updated for the Rancho Peñasquitos, Black Mountain Ranch, and Pacific Highlands Ranch communities, any changes to reflect the project and mitigation measures adopted by this action would be incorporated.

This report describes the results of a jurisdictional waters delineation conducted on the survey area for MM-TRA-2, located in the city of San Diego, California (Figures 1 and 2). The MM-TRA-2 survey area is located to the east of Carmel Mountain Road along the south side of SR-56 and beneath a bridge over a small canyon (Figure 3).

This report includes the jurisdictional waters delineation data necessary for a jurisdictional determination by the ACOE, CDFW, RWQCB, and City of San Diego. Review and approval of the jurisdictional waters delineation would occur during the discretionary review and permit processes for each agency.




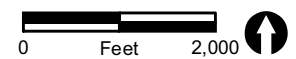
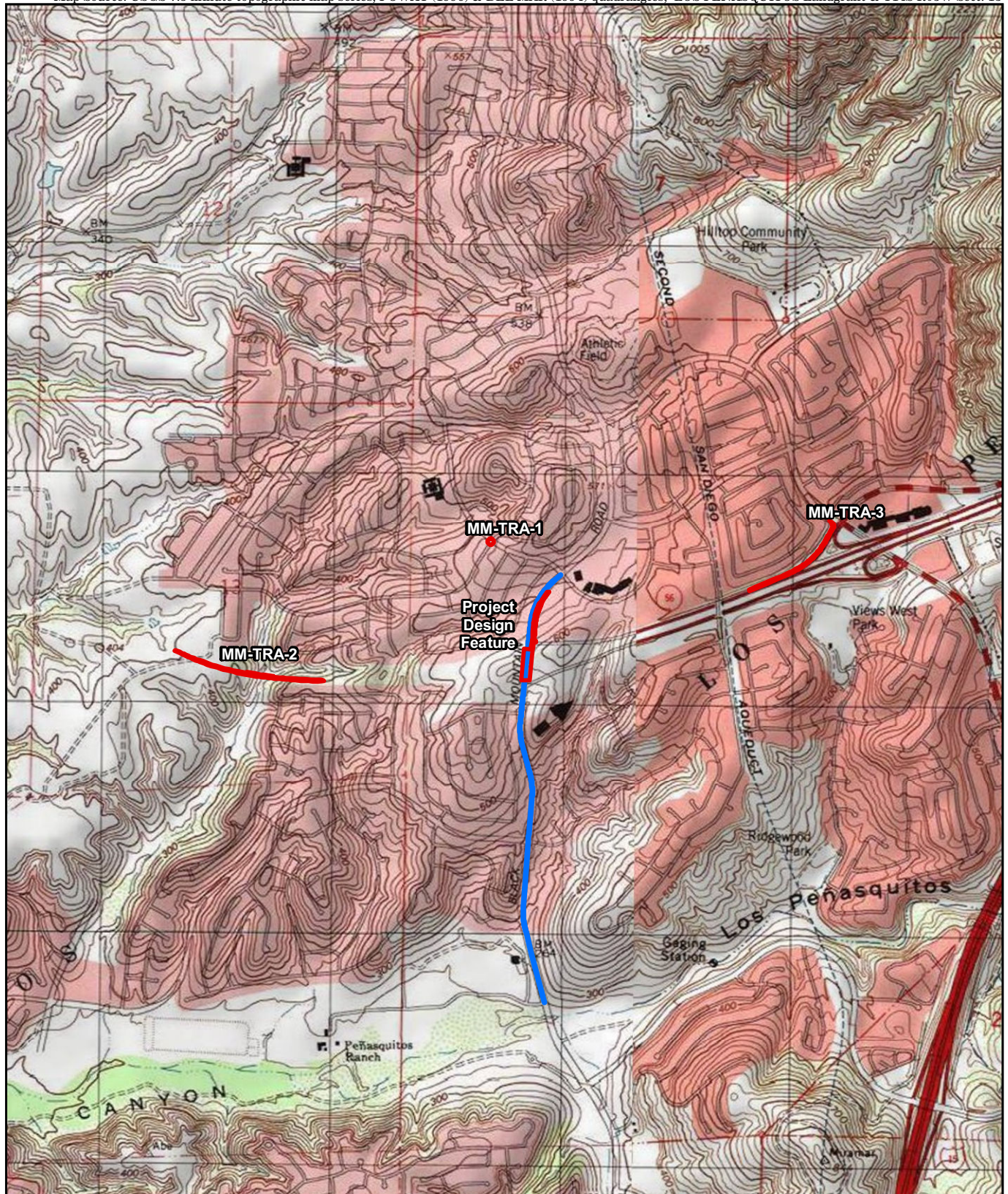
 Project Location

FIGURE 1
Regional Location



- Project Roadway
- Project Design Feature and Traffic Mitigation Measures

Image source: NearMaps (flown Nov 2017)



0 Feet 250

Survey Area

FIGURE 3
Location of MM-TRA-2
Survey Area on Aerial Photograph

3.0 Methods

RECON biologists performed a routine jurisdictional waters delineation within the MM-TRA-2 survey area on November 10, 2017, according to the guidelines set forth by ACOE (1987, 2008). A jurisdictional waters delineation is used to identify and map the extent of the wetlands and waters of the U.S., waters of the state, and City of San Diego wetlands. Prior to conducting the delineation, an aerial photograph was examined to aid in the determination of potential federal, state, and city jurisdictional waters in the survey area. Once on-site, the survey area was examined to determine the presence of any indicators of jurisdictional waters, including wetland vegetation, hydric soils, and hydrology. Soil test pits were located: (1) within potential wetland areas and (2) in or adjacent to the spot where the boundary between wetland and upland was inferred (based on changes in the topography, hydrology, and composition of the vegetation). While in the field, the survey area was also examined for potential ACOE waters of the U.S., potential waters of the state, and potential city wetlands.

3.1 ACOE Waters of the U.S.

According to the ACOE manual (ACOE 1987), wetland waters of the U.S. 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 conditions.”

The definition of a wetland includes the phrase “under normal circumstances,” because there are situations in which the vegetation of a wetland has been removed or altered as a result of a recent natural event or human activities (ACOE 1987).

Atypical situations and problem areas may lack one or more of the three criteria and still be considered wetlands. Background information on the previous condition of the area and/or field observations may indicate that the site met the wetland criteria prior to disturbance. Additional delineation procedures would be employed if normal circumstances did not occur on a site. For the survey area, atypical situations or problem areas do not occur; normal circumstances are present.

3.1.1 Regulatory Definition

In accordance with Section 404 of the Clean Water Act (CWA), ACOE regulates the discharge of dredged or fill material into waters of the United States. 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 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 Code of Federal Regulations (CFR) Part 328.3(a)].

3.1.2 Wetland Parameters

Wetlands are delineated using three parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. According to ACOE, indicators for all three parameters must be present to qualify as a wetland.

3.1.2.1 Hydrophytic Vegetation

Hydrophytic vegetation is defined as “the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content” (ACOE 1987). The potential wetland areas within the survey area were surveyed by walking through the project site and making observations of those areas exhibiting characteristics of jurisdictional waters or wetlands. Vegetation units with potential wetland areas were examined, and data for each vegetation stratum (i.e., tree, shrub, herb, and vine) were recorded on the datasheet provided in the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*² (ACOE 2008). The percent absolute cover of each species present was visually estimated and recorded.

The wetland indicator status of each species recorded was determined by using the list of wetland plants for the arid southwest provided by the ACOE (2013). An obligate (OBL) indicator status refers to plants that have a 99 percent probability of occurring in wetlands under natural conditions. A facultative wet (FACW) indicator status refers to plants that occur in wetlands (67 to 99 percent probability) but are occasionally found in non-wetlands. A facultative (FAC) indicator status refers to plants that are equally likely to occur in wetlands or non-wetlands (estimated probability 34 to 66 percent). Facultative upland

²Hereafter referred to as *Arid Supplement*.

(FACU) species are more often found in upland sites. Upland (UPL) species have a high probability to occur in upland sites. A not indicated (NI) status refers to species that have insufficient data available to determine an indicator status at this time for the local region.

Plant species nomenclature follows that contained in the *online Jepson Flora* (Jepson Flora Project 2015). Dominant species with an indicator status of NI or not listed in the 1997 list were evaluated as either wetland or upland indicator species based on local professional knowledge of where the species are most often observed in habitats characteristic of southern California.

There are three indicators or tests to determine hydrophytic vegetation on a site: the dominance test, prevalence index, and morphological adaptations. The 50/20 rule is a repeatable and objective procedure for selecting a dominant plant species and is recommended when data are available for all species in the community (ACOE 2008). Dominant species are those plants that individually or collectively contribute more than 50 percent of the total vegetative cover plus those species that, by themselves, comprise 20 percent or more of the total cover.

If the vegetation at a particular site passes the dominance test (using the 50/20 rule), the hydrophytic vegetation criterion is considered fulfilled. If it fails the dominance test and positive indicators of hydric soils and/or wetland hydrology are present, it is necessary to apply the prevalence index. The prevalence index is a weighted-average wetland indicator status of all plant species at a test site, where each indicator status category is given a numeric code and weighted by percent cover (ACOE 2008). If a prevalence index is 3.0 or less, the hydrophytic vegetation criterion is considered fulfilled.

If a site fails the prevalence index and positive indicators of hydric soils and/or wetland hydrology are present, it is necessary to assess the presence or absence of morphological adaptations. To apply this indicator, morphological features must be observed on more than 50 percent of the individuals of a FACU species living in an area where indicators of hydric soil and wetland hydrology are present (ACOE 2008). Once this indicator is applied, the dominance test and/or the prevalence index are/is recalculated using a FAC indicator status of this species (ACOE 2008).

3.1.2.2 Hydric Soils

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (ACOE 1987). Hydric soil indicators are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds (ACOE 2008). The hydric soil criterion is considered fulfilled at a location if soils in the area can be inferred to have a high groundwater table, evidence of prolonged soil saturation exists, or any indicators suggesting a long-term reducing environment in the upper 18 inches of the soil profile are present.

A sample point was selected within a potential wetland area where the apparent boundary between wetland and upland was inferred based on changes in the composition of the

vegetation and topography. The soil pit was dug to a depth of at least 18 inches or to a depth necessary to determine soil color, evidence of soil saturation, depth to groundwater, and indicators of a reducing soil environment (e.g., mottling, gleying, and sulfidic odor).

Hydric soil indicators are presented in three groups in the *Arid Supplement* (ACOE 2008): “all soils, sandy soils, and loamy and clayey soils.” Indicators applicable to all soil textures are indicated as A1 through A10 on the datasheet and include histosols, histic epipedon, stratified layers, and muck, among others. Indicators of sandy soils are noted as S1 through S6 and include sandy gleyed matrix, sandy redox, and stripped matrix. F1 (loamy mucky mineral) through F9 (vernal pools) are indicators of hydric conditions within loamy and clayey soils. A complete description of each of the hydric soil indicators is provided in the 2008 *Arid Supplement* and should be referenced during each delineation.

3.1.2.3 Wetland Hydrology

The presence of wetland hydrology indicators confirm that inundation or saturation has occurred on a site, but may not provide information about the timing, duration, or frequency of the event. Hydrology features are generally the most ephemeral of the three wetland parameters (ACOE 2008).

In the 2008 *Arid Supplement*, wetland hydrology indicators are divided into four groups. Those that are determined based on direct observation are in Group A. These include the presence of surface water, a high-water table, and saturation. Water marks, drift deposits, surface soil cracks, and other indicators of flooding or ponding fall within Group B. Group C consists of indicators that provide indirect evidence that a site was saturated recently, such as the presence of sulfidic odors or oxidized rhizospheres along living roots. Group D consists of vegetation and soil features that indicate recent wet conditions, such as the FAC-neutral test or a shallow aquitard (ACOE 2008). These indicators are further classified as primary or secondary indicators.

Hydrologic information for the site was obtained by reviewing U.S. Geological Survey topographic maps and by directly observing hydrology indicators in the field. The wetland hydrology criterion is considered fulfilled at a location if, based upon the conclusions inferred from the field observations, an area has a high probability of being periodically inundated or has soils saturated to the surface at some time during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (ACOE 1987). If at least one primary indicator or at least two secondary indicators are found at a sample point, the wetland hydrology criterion is considered fulfilled.

3.2 CDFW and RWQCB Waters of the State

Under Sections 1600–1607 of the 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. CDFW has jurisdiction over riparian habitats (e.g., southern willow scrub) associated with watercourses. 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.

RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes waters of the state as mandated by both the federal CWA Section 401 and the California Porter-Cologne Water Quality Control Act.

3.3 City of San Diego Wetlands

According to the City of San Diego's Municipal Code (City of San Diego 2012), wetlands are areas that are characterized by any of the following conditions: (1) all areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation; (2) 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 (3) areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands or catastrophic reoccurring natural events that prevent establishment of vegetation; (4) areas mapped as *wetlands* on Map No. C-713 as shown in Chapter 13, Article 2, Division 6 (Sensitive Coastal Overlay Zone) (City of San Diego 2012).

4.0 Results of Field Data

A description of the major vegetation units observed and soil types encountered, and a discussion of the local hydrology in the project area are presented below. Copies of the field data forms summarizing information on vegetation, soils, and hydrology observed at each sample site are provided in Attachment 1.

4.1 Vegetation

Three vegetation communities (coastal sage scrub, southern willow scrub, freshwater marsh) and two land cover types (ornamental plantings, developed land) occur in the MM-TRA-2 survey area. Areas with and without hydrophytic vegetation occur on-site. Areas with hydrophytic vegetation, in general, were considered potential jurisdictional waters. Locations on-site without hydrophytic vegetation were considered upland, unless evidence suggested that a wetland or other jurisdictional water might occur at the particular location. Vegetation dominated by OBL, FACW, and/or FAC hydrophytic indicator plant species usually satisfies the hydrophytic vegetation criteria, one of the three criteria necessary to be identified as an ACOE wetland.

4.1.1 Areas with Hydrophytic Vegetation

Hydrophytic vegetation within the survey area occurs within the areas considered wetland. These areas are dominated by OBL and FACW hydrophytic vegetation indicators such as

cattail (*Typha latifolia*), willows (*Salix laevigata*, *S. lasiolepis*, *S. gooddingii*), and mule fat (*Baccharis salicifolia*).

4.1.2 Areas Lacking Hydrophytic Vegetation

The coastal sage scrub vegetation community and the ornamental plantings areas are dominated by upland plant species and do not satisfy the hydrophytic vegetation criteria. These vegetation types occur adjacent to the outside of the bed and bank of the drainage or along the slopes adjacent to SR-56.

4.2 Soils

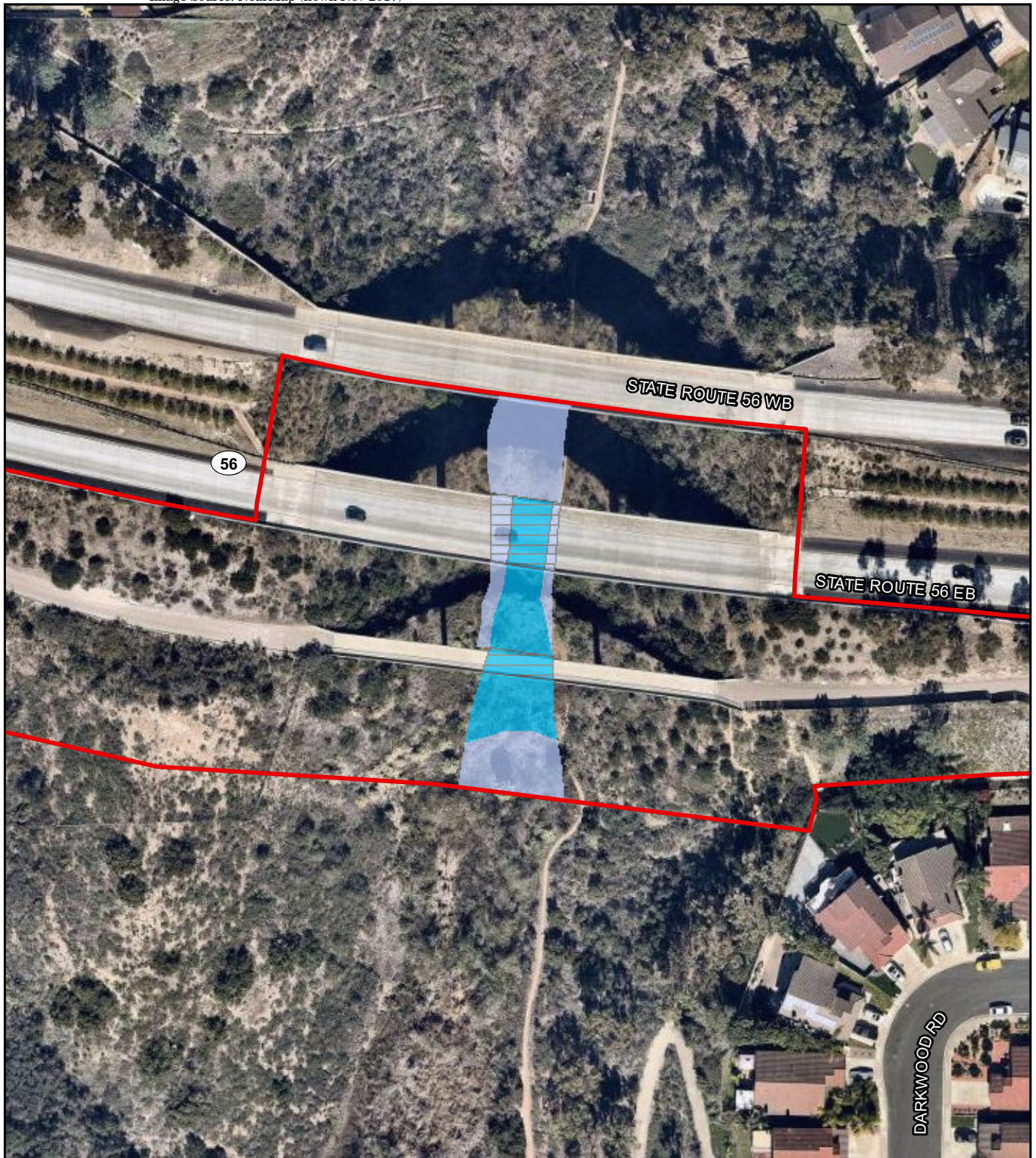
Three soil series are present on-site: Redding gravelly loam, Olivenhain cobbly loam, and terrace escarpments (U.S. Department of Agriculture 1973). Sample points were selected within potential wetland areas and where the apparent boundary between wetland and upland was inferred, based on changes in the topography, hydrology, and composition of the vegetation. Soil test pits were dug to search for indicators of hydric soil conditions. Hydric soil indicators observed in the test pits included a low chroma matrix color, mottling, and saturation.


4.3 Hydrology

One drainage courses occurs within the MM-TRA-2 survey area. This drainage has an intermittent hydrologic regime. Hydrology inputs are from seasonal precipitation inputs and year-round urban runoff that drain from the adjacent lands and developed areas. Flows in this drainage travel in a southerly direction and drain into Los Peñasquitos Creek located to the south. Los Peñasquitos Creek drains westerly and connects to the Pacific Ocean via Los Peñasquitos Lagoon. Hydrology indicators observed included inundation, drift deposits, and drainage patterns.





5.0 Jurisdictional Waters Delineation

ACOE, CDFW, RWQCB and the City of San Diego will verify this jurisdictional waters delineation during the discretionary and permit review processes to make a final jurisdictional determination with respect to Section 404 of the CWA, Section 1600 of the Fish and Game Code, the California Porter–Cologne Water Quality Control Act, and the City of San Diego’s Biology Guidelines (City of San Diego 2012). The location of federal waters of the U.S., waters of the state, and city wetlands are shown on Figure 4. A total of 0.32 acre of federal, state, and City wetland occurs in the MM-TRA-2 survey area.



 Survey Area

ACOE, CDFW, RWQCB, City of San Diego Wetland Jurisdictional Habitat

-  Freshwater Marsh
-  Freshwater Marsh (under bridge)
-  Southern Willow Scrub
-  Southern Willow Scrub (under bridge)

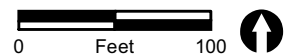


FIGURE 4

Location of Jurisdictional Waters
within the MM-TRA-2 Survey Area

5.1 Waters of the U.S. (ACOE Jurisdiction)

Federal waters of the U.S. on-site include 0.32 acre of wetland waters. The limit of the wetland was determined by the lateral extent of the hydrophytic vegetation and Ordinary High Water Mark.

5.2 Waters of the State (CDFW and RWQCB Jurisdiction)

Wetland waters of the state totaling 0.32 acre occur on-site. The limit of the CDFW wetland was estimated to be at the outer drip line of the canopy for the riparian vegetation, including the limits of the bed and bank. The RWQCB takes jurisdiction over all waters of the state and all waters of the U.S. as mandated by both the federal CWA and the California Porter–Cologne Water Quality Control Act. The extent of RWQCB jurisdiction in this case is the same as the limits of the waters of the state as all federal waters of the U.S. are within this limit and total 0.32 acre of wetland.

5.3 City Wetlands

The City of San Diego takes jurisdiction over all naturally occurring wetland vegetation. For this project, city wetlands are the same as those delineated as waters of the state and total 0.32 acre.

6.0 Regulatory Issues

ACOE, CDFW, and RWQCB jurisdictional waters are regulated by federal and state governments under a no-net-loss policy, and all impacts are considered significant and should be avoided to the greatest extent possible. Unavoidable and authorized impacts would require mitigation through habitat creation, enhancement, or preservation as determined by a qualified restoration biologist in consultation with the regulatory agencies during the permitting process. Any impacts to ACOE, CDFW, and RWQCB jurisdictional waters would require a Section 404 permit authorization from ACOE, a 1600 Streambed Alteration Agreement from CDFW, and a 401 State Water Quality Certification from RWQCB, along with compensatory mitigation.

7.0 References Cited

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2014 Jepson eflora. <http://ucjeps.berkeley.edu/IJM.html>.

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1973 Soil Survey, San Diego Area, California. Soil Conservation Service and Forest Service. Roy H. Bowman, ed. San Diego. December.

ATTACHMENT 1

Field Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TRA-2 Traffic Mitigation Area City/County: San Diego / San Diego Sampling Date: 11/10/17
 Applicant/Owner: CalAtlantic Homes State: CA Sampling Point: 1
 Investigator(s): G. Scheid Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): canyon bottom Local relief (concave, convex, none): concave Slope (%): 0.2
 Subregion (LRR): LRR-C Lat: 32 deg. 57 min. 11.6 sec. Long: 117 deg. 8 min. 32.8 sec. Datum: NAD83
 Soil Map Unit Name: Terrace escarpments NWI classification: Riverine
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____) 1. <u>Salix laevigata</u> Absolute % Cover: <u>10</u> Dominant Species? <u>Yes</u> Indicator Status: <u>FACW</u> 2. <u>Salix lasiolepis</u> Absolute % Cover: <u>20</u> Dominant Species? <u>Yes</u> Indicator Status: <u>FACW</u> 3. _____ 4. _____ _____ = Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. <u>Baccharis salicifolia</u> Absolute % Cover: <u>5</u> Dominant Species? <u>Yes</u> Indicator Status: <u>FACW</u> 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover	Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Herb Stratum (Plot size: _____) 1. <u>Typha latifolia</u> Absolute % Cover: <u>60</u> Dominant Species? <u>Yes</u> Indicator Status: <u>OBL</u> 2. <u>Juncus acutus</u> Absolute % Cover: <u>20</u> Dominant Species? <u>No</u> Indicator Status: <u>FACW</u> 3. <u>Heliotropium curassivicum</u> Absolute % Cover: <u>10</u> Dominant Species? <u>No</u> Indicator Status: <u>FACU</u> 4. <u>Scirpus robustus</u> Absolute % Cover: <u>10</u> Dominant Species? <u>No</u> Indicator Status: <u>OBL</u> 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover		
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover		
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____		
Remarks:		

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

☐ 1 cm Muck (A9) (**LRR C**)
☐ 2 cm Muck (A10) (**LRR B**)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present?	Yes	X	No
----------------------	-----	---	----

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (minimum of one required; check all that apply)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <u>X</u>	No <u> </u>	Depth (inches): <u> 6 </u>
Water Table Present?	Yes <u>X</u>	No <u> </u>	Depth (inches): <u> 0 </u>
Saturation Present? (includes capillary fringe)	Yes <u>X</u>	No <u> </u>	Depth (inches): <u> 0 </u>

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TRA-2 Traffic Mitigation Area City/County: San Diego / San Diego Sampling Date: 11/10/17
 Applicant/Owner: CalAtlantic Homes State: CA Sampling Point: 2
 Investigator(s): G. Scheid Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): canyon bottom Local relief (concave, convex, none): concave Slope (%): 0.2
 Subregion (LRR): LRR-C Lat: 32 deg. 57 min. 12.1 sec. Long: 117 deg. 8 min. 32.75 sec Datum: NAD83
 Soil Map Unit Name: Terrace escarpments NWI classification: Riverine
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Salix lasiolepis</u>	30	Yes	FACW	
2. <u>Washintonia robusta</u>	5	No	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____) 1. <u>Baccharis salicifolia</u> 15 Yes FACW 2. _____ 3. _____ 4. _____ 5. _____ = Total Cover				
Herb Stratum (Plot size: _____) 1. <u>Typha latifolia</u> 75 Yes OBL 2. <u>Iva haysiana</u> 20 No FACW 3. <u>Apium graveolens</u> 5 No FAC 4. <u>Juncus acutus</u> 5 No FACW 5. _____ 6. _____ 7. _____ 8. _____ = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ = Total Cover				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Hydrophytic Vegetation Present? Yes <u>X</u> No _____				
Remarks:				

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	

☐ 1 cm Muck (A9) (**LRR C**)
☐ 2 cm Muck (A10) (**LRR B**)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present?	Yes	X	No
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (minimum of one required; check all that apply)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <u>X</u>	No <u> </u>	Depth (inches): <u> 8 </u>
Water Table Present?	Yes <u>X</u>	No <u> </u>	Depth (inches): <u> 0 </u>
Saturation Present? (includes capillary fringe)	Yes <u>X</u>	No <u> </u>	Depth (inches): <u> 0 </u>

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: TRA-2 Traffic Mitigation Area City/County: San Diego / San Diego Sampling Date: 11/10/17
 Applicant/Owner: CalAtlantic Homes State: CA Sampling Point: 3
 Investigator(s): G. Scheid Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): canyon bottom Local relief (concave, convex, none): concave Slope (%): 0.2
 Subregion (LRR): LRR-C Lat: 32 deg. 57 min. 12.6 sec. Long: 117 deg. 8 min. 32.68 sec. Datum: NAD83
 Soil Map Unit Name: Terrace escarpments NWI classification: Riverine
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Salix gooddingii</u>	40	Yes	FACW	
2. <u>Washingtonia robusta</u>	15	No	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. <u>Iva haysiana</u>	25	Yes	FACW	
2. <u>Baccharis salicifolia</u>	5	No	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Typha latifolia</u>	50	Yes	OBL	
2. <u>Juncus acutus</u>	20	Yes	FACW	
3. <u>Cortaderia sellona</u>	5	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				

Remarks:

SOIL

Sampling Point: 3**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 3/2	95	5YR 6/8	5	RM	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) |

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 6

Saturation Present? Yes X No _____ Depth (inches): 3

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

ATTACHMENT 5

Jurisdictional Waters Delineation for the
Black Mountain Road Community Plan Amendment Project