COASTAL RAIL TRAIL – GILMAN DRIVE SEGMENT

Biological Technical Report

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

This report presents the results of a biological study and analysis for the Coastal Rail Trail – Gilman Drive Segment Project (CRT). The City of San Diego (City) proposes to construct the Gilman Drive segment of the Coastal Rail Trail bicycle facilities located on Gilman Drive between the University of California, San Diego (UCSD) campus and the Rose Canyon Bikeway. The proposed project includes a one-way protected cycle track on each side of Gilman Drive and a continuous sidewalk on the west side of Gilman Drive over a project distance of approximately 8,800 linear feet. The cycle track will be separated from vehicular traffic by a raised median, striping, flexible posts, on-street parking, or other physical barrier. To accommodate the cycle tracks, the project would include roadway widenings on the west side of Gilman Drive from Villa La Jolla Drive southerly to an existing private driveway (an approximate distance of 3,000 linear feet). Roadway widenings would occur on the east side of Gilman Drive from Via Alicante to the Interstate 5 (I-5) southbound off-ramp (an approximate distance of 4,500 linear feet) along with construction of a 2-foot recovery slope adjacent to the cycle track along portions of the natural area from Via Alicante to I-5. In addition to roadway widening, the project includes roadway re-striping, street lighting, landscaping, retaining walls, drainage improvements, bus stop improvements and traffic signal modifications. The existing traffic signals at I-5, Via Alicante and Villa La Jolla Drive would be modified to work in conjunction with the proposed improvements (Figure 1).

Retaining walls would be required on the west side of Gilman Drive from just north of Villa La Jolla Drive to Via Alicante (an approximate distance of 1,054 LF) and from a point south of Via Alicante to a private driveway at La Jolla Hideaway private apartments (an approximate distance of 1,120 LF). The walls would range from heights between three and seven feet.

A new sidewalk would be constructed along the west side of Gilman Drive to connect existing sidewalk segments and create a continuous sidewalk along the entire west side. The sidewalks would be directly next to the proposed retaining walls. The sidewalks on the east side of Gilman Drive north of Via Alicante to La Jolla Village Drive would remain in place, and a new sidewalk would not be constructed on the east side of Gilman Drive south of Via Alicante.

Parallel parking would be protected along both sides of Gilman Drive most of the length between the La Jolla Village Drive ramps and Villa La Jolla Drive, and on the east side, south to Via Alicante. Additional parallel parking would be provided along the west side near the existing apartments and private driveways along the southern portion of the project. The parking spaces would be part of the buffer between the cycle track and vehicular traffic. In these areas, the raised buffer would not be constructed, rather, the cycle track and parking would be separated by a striped buffer.

Street lighting would be provided along Gilman Drive along the length of the project. The lighting would be installed per City of San Diego street lighting standards, with light standards on both sides of the street at 300 foot intervals. The lighting would be fully shielded to not shine in adjacent houses or open space areas, and would conform to dark sky glare reduction standards as well.

Existing storm drains within open space are undersized and have failed causing erosion. The storm drains are subject to improvements and will include the construction of: curb and gutters, curb inlets, cleanouts, storm drains, and brow ditches in order to comply with the City's Region MS4 Permit, and the City of San Diego's Storm Water Standards BMP Design Manual dated 2018 at the preparation of this report.

A raised curb buffer would be placed on either side of the bus stop passenger waiting area. The bus stops on the west (southbound) side of Gilman Drive would remain at the sidewalk, and busses would pull into

the cycle track area to pick up passengers.

Green paint and striping would highlight the cycle track at intersections and bus stops. Raised buffers also would be constructed on either side of driveway intersections where the cycle track is separated from driving lanes by painted stripes. The traffic signals at Villa La Jolla would be shifted to accommodate the project, and a new traffic signal would be added at La Jolla Village Drive.

Acquisition of additional roadway right-of-way (ROW) is required from several parcels east of Gilman Drive, south of Via Alicante, and temporary construction easements are required for several parcels for slope grading and retaining wall construction.

Caltrans, on behalf of the Federal Highway Administration, is the lead agency under the National Environmental Policy Act and requires preparation of a Natural Environment Study (NES). The City of San Diego is the lead agency under the California Environmental Quality Act (CEQA) and because the project requires City approval of discretionary permits, it must conform to City requirements regarding biological resources, including the Environmentally Sensitive Lands (ESL) regulations, Biology Guidelines, California Environmental Quality Act (CEQA) Significance Determination Thresholds (2016), and Multiple Species Conservation Program (MSCP) Subarea Plan guidelines.

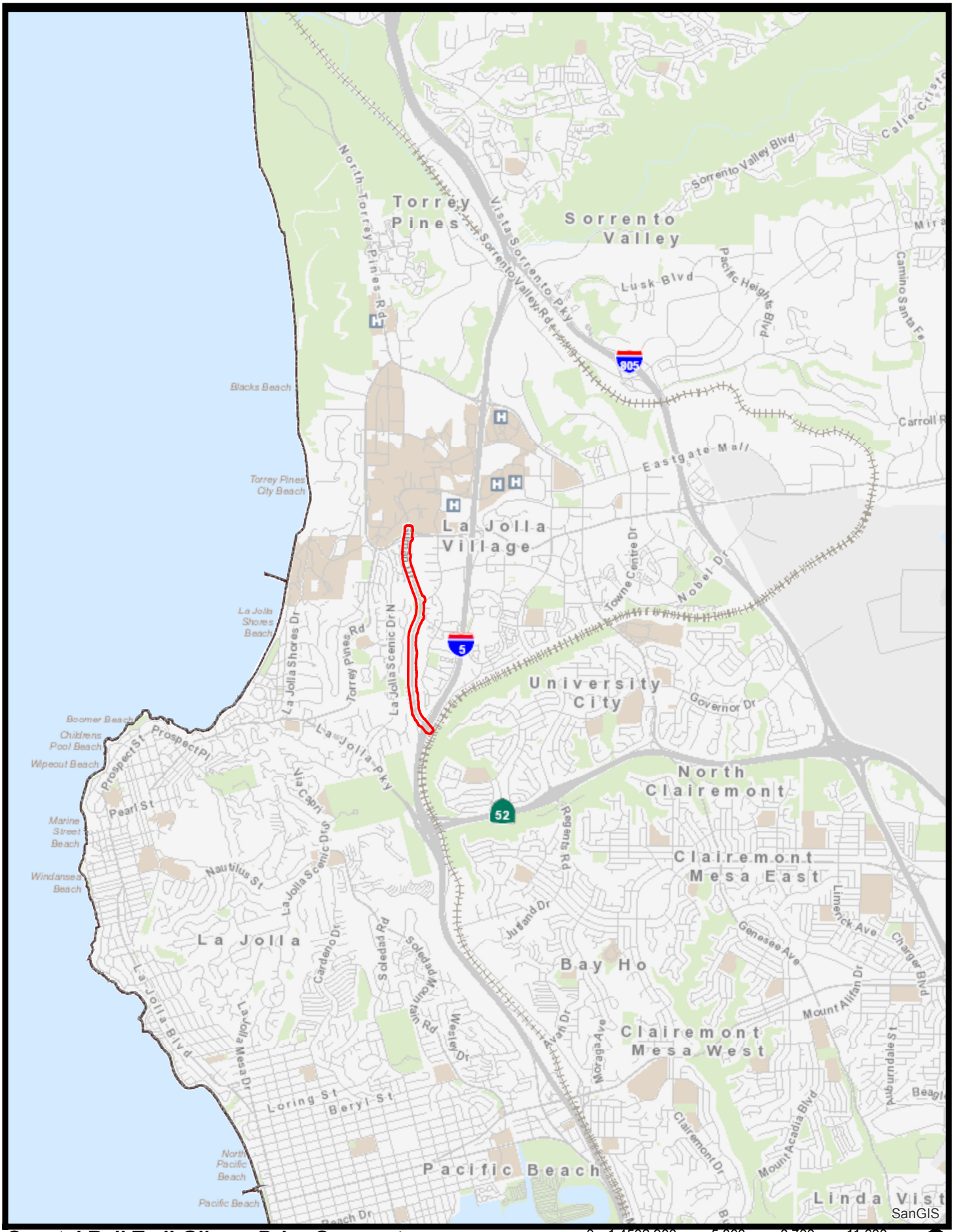
1.2 PROJECT LOCATION

The Project is located along Gilman Drive between University of California, San Diego (UCSD) and Rose Canyon Bikeway within both the La Jolla and University Community Planning Areas (USGS 7.5' Topographic Quadrangle: La Jolla). It is approximately 1.8 miles long, and represents Segment 9 of the CRT Project Study Report (Figure 1). The site is located in an urban area of apartments and single-family homes. Natural open space is present on steep, eroded slopes (15% to 45%), and in a drainage that parallels Gilman Drive from Via Alicante to the I-5 freeway (at the base of the slope along the east side of the roadway). The site is located within and adjacent to the Multi-Habitat Planning Area (MHPA) of the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan. Much of the landscape has been altered by urban development.

1.3 REGULATORY CONTEXT

The Project would be subject to all City of San Diego biological regulations, as outlined herein, as well as relevant state and federal regulations. A full description of state and federal regulations is included as Attachment A to this report. Note however, that compliance with the City's MSCP plan and implementing regulations (e.g., Biology Guidelines, MSCP Subarea Plan, etc.), would result in conformance with the state and federal endangered species acts for species deemed 'covered' under those plans. If sensitive species not covered by the MSCP occurred on-site, consultation and permitting through state and federal agencies would still be required. Conformance with all other regulations, such as jurisdictional non-wetland waters regulations, would be required and is separate from the City's permitting process. Conformance with all regulations, state, local and federal, is the responsibility of the Project applicant.

Figure 1 Project Location Map



Coastal Rail Trail-Gilman Drive Segment

FIGURE 1: PROJECT LOCATION MAP

SD Public Works

8/6/2019

Figure 2 Project Impact Map

Public Works

Coastal Rail Trail-Gilman Drive Segment

FIGURE 2: PROJECT IMPACT AREA

Project Design Features

1. Burrow/Disposal Sites: All borrow sites will be within the Project Limits. Additional material import and dispersal will be offsite, the location of which will not be determined until construction.

2. Staging: All staging areas will be within the road ROW and Temporary Impact Areas within the project footprint.

3. Access: All construction access to this project will be along the existing road ROW andwithin the Temporary Impact Areas.

4. Utilities: All proposed utility work will be performed within the project footprint and Temporary Impact Areas.

5. Detours: No detours are proposed.

4/14/2020

2 METHODS

Google Earth imagery and ArcMap software was used to determine which project features had potential for construction activities to impact sensitive resources. The City provided shapefiles of the potential project features. This biological assessment was comprised of the following activities:

- Desktop analysis of existing biological resources
- Desktop vegetation mapping
- Field analysis of vegetation mapping for select sites
- Analysis of potential Project impacts on biological resources
- Analysis of Project conformance with local, state, and federal biological regulations

Desktop analysis of the project area was accomplished by completing a California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) search for information for the U.S. Geological Society 7.5' La Jolla Quadrangle, San Diego Museum of Natural History rare plant inventory, the United States Fish and Wildlife Service's (USFWS) National Wetland Inventory wetland mapper, and ArcMap to determine presence of biologically sensitive resources that could potentially be impacted by construction.

2.1 BOTANICAL SURVEYS

General botanical surveys were conducted in the Fall of 2016 in concurrence with the vegetation mapping effort. Vegetation mapping efforts were updated in the Spring of 2019. The survey biologist noted all identifiable plant species, including the presence of special-status species. Vegetation communities were classified and mapped in the field from strategic vantage points. Nomenclature of vegetation types follows that of the SANDAG's Vegetation Classification Manual for Western San Diego County (Sproul et. al., 2011) and Manual of California Vegetation 2nd Edition (Sawyer et al., 2009). In order to determine Habitat Tier levels per the City of San Diego Biology Guidelines (2012), each classification is then associated to the closest synonymous vegetation classification as described in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008) and Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland, 1986). Plant species observed were recorded to the greatest extent feasible; however, majority of the survey area was developed and planted with ornamentals, a complete list of ornamentals was not practicable given the high number of private residences. Plant taxonomic nomenclature and common names follow Rebman and Simpson (2014) and Brenzel (2001) for ornamentals, and animal names follow Laudenslayer (1991). Acreages of each habitat type (delineated as a habitat polygon on the compiled vegetation maps) were calculated using a Geographic Information System (GIS). A vegetation map depicting all the communities within the BSA is provided as Appendix B. A complete list of all the plant species detected during the surveys is included as Appendix G.

2.2 GENERAL WILDLIFE SURVEYS

General wildlife surveys were scheduled to coincide with times (e.g., breeding/nesting season) when the species determined to potentially occur in the area would be more conspicuous or readily observable in the field. All vegetated areas within the BSA were surveyed for wildlife. The suitability of habitat/conditions for sensitive wildlife species was also evaluated during the general wildlife surveys. General wildlife surveys and habitat suitability assessments occurred within the BSA.

All accessible areas of habitat within the BSA were walked by AECOM biologists. Wildlife sign, track, or direct observations of wildlife species detected during focused protocol surveys and habitat assessments were recorded. A complete list of all wildlife species detected during surveys is included in Appendix H. Additionally, wildlife corridors were evaluated using aerial maps of the region and accessing areas of habitat connectivity within the BSA during field surveys.

2.2.1 Coastal California Gnatcatcher (CAGN) Surveys

CAGN surveys were conducted due to the presence of 10.85 acres of suitable habitat within the BSA. A reconnaissance-level habitat assessment for CAGN was conducted by AECOM biologists in 2016. Surveys were also completed during the breeding season of 2018, per USFWS guidelines (USFWS 1997). Surveys were conducted within the BSA in suitable CAGN habitat. All surveys followed the current USFWS protocol for the species, dated February 28, 1997 (and as amended July 28, 1997) (USFWS 1997). Surveyors included AECOM biologists Brennan Mulrooney and Emma Fraser (TE 820658), and Eric Bailey (TE 101151). Surveys were conducted during morning hours when conditions were suitable to detect CAGN. Three protocol surveys were separated by a minimum of 7 days and were conducted from May 15 through May 30, 2018 (Table 1). All 10.85 acres of potentially suitable CAGN habitat spread across the project area was surveyed per the protocol (Appendix B). Prior surveys for the CAGN were conducted for the BSA during the spring of 2015.

The 2018 survey consisted of walking meandering transects through potential CAGN habitat. The biologist conducted passive surveillance (i.e., listening and looking for the species) in all habitats with potential to support CAGN. If an observation was not made after approximately 5 to 10 minutes of passive survey activity, a recorded vocalization of CAGN was played for approximately 5 to 10 seconds (i.e., active survey activity), followed by another period of passive observation. Surveys were not conducted during periods of inclement weather such as extreme wind or during a rain event.

2.2.2 Least Bell's Vireo (LBVI) Surveys

LBVI surveys were conducted due to the presence of 4.47 acres of suitable habitat within the BSA. A reconnaissance-level habitat assessment for LBVI was conducted by AECOM biologists in 2016.

LBVI surveys were completed during the breeding season of 2018. Focused surveys followed the current USFWS survey guidelines for the species, dated January 19, 2001 (USFWS 2001). No recovery permit pursuant to Section 10(a)(1)(A) of the Endangered Species Act was required, since the protocol was utilized and vocalization playback was not used. Surveys were conducted by AECOM biologists Brennan Mulrooney, Emma Fraser, and Rick Bailey, who have LBVI survey experience and prior field identification of the species. The survey consisted of walking transects through potential LBVI habitat and conducting passive surveillance (i.e., listening and looking for the species). Per USFWS guidelines, the area was surveyed eight times during 2018 (Table 1). Surveys were conducted at least 10 days apart and typically were completed between dawn and 11 a.m. All surveys occurred between May 4 and July 26, 2018. Surveys were not conducted during periods of inclement weather such as extreme wind or during a rain event. Survey dates are summarized in the table below.

Table 1. Survey Information		
Survey Personnel	**Date**	**Survey Activity**
John Messina	November 4, 2016	General botanical reconnaissance and vegetation mapping
John Messina	November 6, 2016	General botanical reconnaissance and vegetation mapping
John Messina	November 17, 2016	General botanical reconnaissance and vegetation mapping
Brennan Mulrooney	November 11, 2016	General wildlife reconnaissance
Eric Bailey	May 14, 2018	Least Bell's vireo protocol survey
Eric Bailey	May 15, 2018	Coastal California gnatcatcher survey
Brennan Mulrooney	May 23, 2018	Coastal California gnatcatcher survey
Emma Fraser	May 25, 2018	Least Bell's vireo protocol survey
Brennan Mulrooney, Emma Fraser	May 30, 2018	Coastal California gnatcatcher survey
Emma Fraser	June 5, 2018	Least Bell's vireo protocol survey
Brennan Mulrooney	June 15, 2018	Least Bell's vireo protocol survey
Eric Bailey	June 25, 2018	Least Bell's vireo protocol survey
Eric Bailey	July 5, 2018	Least Bell's vireo protocol survey
Emma Fraser	July 16, 2018	Least Bell's vireo protocol survey
Eric Bailey	July 26, 2018	Least Bell's vireo protocol survey
Bonnie Hendricks	May 8, 2018	Wetland delineation
Michelle Maloney	May 8, 2018	Wetland delineation
Rebecca Alvidrez, Maya Mazon(City of San Diego)	May 8, 2019	Vegetation mapping
Rebecca Alvidrez, Maya Mazon(City of San Diego)	May 13, 2019	Vegetation mapping
Rebecca Alvidrez, Megan Hickey(City of San Diego)	May 15, 2019	Vegetation mapping

3 SURVEY RESULTS

3.1 DESCRIPTION OF THE EXISTING BIOLOGICAL AND PHYSICAL CONDITIONS

3.1.1 Biological Study Area (BSA)

The BSA totals approximately 67.77 acres, and was based on a 100-foot buffer around the project footprint (Figure 1). The BSA includes all areas that could be potentially directly impacted, plus a buffer to assist in the analysis of potential indirect impacts. The majority of the BSA consists of urban development such as roads, UCSD, and private residences. Native and non-native vegetation occurs along the slopes of the BSA that are too steep to develop and the floodplain and slopes adjacent to the stream along Gilman Drive. The area within which all proposed permanent and temporary construction activities would be restricted, is wholly encompassed by the BSA and occurs along a narrow strip adjacent to the east shoulder of Gilman Drive (Figure 2). The project area is along the eastern shoulder of Gilman Drive within the City of San Diego, located in the central coastal region of San Diego County, California. From the north end, the BSA begins on Gilman Drive on the UCSD campus near Eucalyptus Grove Lane and extends south to I-5.

3.1.2 Physical Conditions

3.1.2.1 Topography

The BSA encompasses several coastal mesas with relatively steep slopes that are bisected by streams. The primary natural features within the BSA are the unnamed south-flowing tributary to Rose Canyon that flows parallel to Gilman Drive and its associated slopes. Much of the landscape has been altered by urban development. Elevation within the BSA ranges from approximately 130 feet above mean sea level (AMSL) to 412 feet AMSL.

3.1.2.2 Soils

Six soil series are present within the BSA: Altamont, Carlsbad, Chesterton, Corralitos, Huerhuero, and Salinas. One land types, terrace escarpments, is also present terrace escarpments. Below is a description of these soil series and land types. Table 2 lists the acreages of each soil series within the BSA. Figure 3 illustrates the soil series and land types within the BSA.

Table 2: Soils Series, Land Types, and Acreages Present within the BSA

Soil Series	BSA Acreage
Altamont clay	20.8
Carlsbad gravelly loamy sand	0.6
Chesterton fine sandy loam	0.3
Corralitos loamy sand	27.9
Huerhuero loam	10.8
Salinas clay loam	0.2
Terrace escarpments	7.1

3.1.2.2.1 Altamont Series

The Altamont series consists of well-drained clays that form in material weathered from calcareous shale. These soils are on uplands and have slopes of 5 to 50 percent. Altamont clay 15 to 30 percent slopes, eroded (AtE) and Altamont clay 30-50 percent slopes (AtF) are the soil phases of this series present within the BSA (USDA 1973).

3.1.2.2.2 Carlsbad Series

The Carlsbad series consists of moderately well drained and well drained gravelly loamy sands that are moderately deep over a hardpan. These soils formed in material weathered in place from soft ferruginous sandstone. They are on ridges and in swales and have slopes of 2 to 30 percent. Carlsbad gravelly loamy sand 2 to 5 percent slopes (CbB); 5 to 9 percent slopes (CbC); 9 to 15 percent slopes (CbD); and the Carlsbad-Urban land complex 2 to 9 percent slopes (CcC) and 9 to 30 percent slopes (CcE) are the soil phases of this series present within the BSA (USDA 1973).

3.1.2.2.3 Chesterton Series

The Chesterton series consists of moderately well-drained fine sandy loams that have a sandy clay subsoil. These soils formed in material weathered in place from soft ferruginous sandstone. They are on ridges and in swales and have slopes of 2 to 15 percent. Chesterton fine sandy loam 2 to 5 percent slopes (CfB) and Chesterton fine sandy loam 5 to 9 percent slopes (CfC) are the soil phases of this series present within the BSA (USDA 1973).

3.1.2.2.4 Corralitos Series

The Corralitos series consists of somewhat excessively drained, very deep loamy sands that formed in alluvium derived from marine sandstone. These soils are in narrow valleys and on small alluvial fans. Corralitos loamy sand, 5 to 9 percent slopes is the soil phase of this series present within the BSA (USDA 1973).

3.1.2.2.5 Huerhuero Series

The Huerhuero series consists of moderately well-drained loams that have a clay subsoil. These soils developed in sandy marine sediments. These soils have slopes of 2 to 30 percent. Huerhuero loam 5 to 9 percent slopes (HrC2), Huerhuero loam 9 to 15 percent slopes and (HrD2) are the soil phases of this series present within the BSA (USDA 1973).

3.1.2.2.6 Salinas Series

The Salinas series consists of well-drained and moderately well-drained clay loams that formed in sediments washed from Diablo, Linne, Las Flores, Huerhuero, and Olivenhain soils. These soils are on floodplains and alluvial fans and have slopes of 0 to 9 percent. Salinas clay loam 2 to 9 percent slopes (SbC) is the soil phase of this series present within the BSA (USDA 1973).

3.1.2.2.7 Terrace Escarpments

Terrace escarpments (TeF) consists of steep to very steep escarpments and escarpment-like landscapes. Terrace escarpments occur on the nearly even fronts of terraces or alluvial fans. The escarpment-like landscapes occur between narrow floodplains and adjoining uplands and the very steep sides of drainageways that are entrenching into fairly level uplands. In most places, there is 4 to 10 inches of loamy or gravelly soil over soft marine sandstone, shale, or gravelly sediments (USDA 1973).

Figure 3 Soils Map

Soil Map—San Diego County Area, California
(Soils Map of BSA)

Map Scale: 1:8,950 if printed on B portrait (11" x 17") sheet.

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

3.1.2.3 Hydrology

The BSA is within the Mission Bay Watershed of the Los Peñasquitos Creek Hydrologic Unit. Rose Creek, just outside of the BSA, is one of the two main tributaries to Mission Bay. Within the BSA, the drainage that runs alongside Gilman Drive, is a tributary to Rose Creek. The upper portion of the historical drainage has been channelized and undergrounded, beneath the development from Via Alicante to the north. The drainage now daylights just south of Via Alicante. This unnamed drainage parallels Gilman Drive from Via Alicante south to I-5 where it is again channelized and undergrounded from the southbound ramps of I-5 to Rose Creek. Much of Mission Bay is adversely affected by coliform bacteria inputted by urban runoff and sewage spills, which are discharged by the main tributaries and smaller conveyances draining the watershed (Project Clean Water 2016).

3.1.3 Biological Conditions in the Biological Study Area

3.1.3.1 Vegetation Communities

Natural communities are characterized by physical and topographical factors that help categorize diverse biological conditions. The BSA lies within the confines of the coastal slopes of San Diego County, California. Most of the BSA is urban development with ornamental plantings. Upland native and non-native occur where development has not occurred, (e.g., steep slopes), while native riparian communities occur along the drainage courses next to Gilman Drive. Below is a detailed description of the vegetation communities and land uses within the BSA. Table 3 provides a list of these communities and land uses as well as their acreages within the BSA. A map depicting these vegetation communities is provided in Appendix B.

Table 3: Vegetation Communities, Land Uses and Acreages within the BSA

Vegetation Community/Land Use	Tier Habitat	Acreage within BSA
Native Vegetation Communities[1]		
Diegan Coastal Sage Scrub		
(Artemisia californica – Salvia mellifera Association)	Tier II	5.90
(Salvia mellifera-Eriogonum fasiculatum Association*)*	Tier II	2.71
Disturbed Diegan Coastal Sage Scrub		
(Disturbed Artemisia californica – Salvia mellifera Association*)*	Tier II	0.46
(Disturbed Salvia mellifera-Eriogonum fasiculatum Association*)*	Tier II	1.78
Coastal Sage-Chaparral Transition		
(Rhus integrifolia Association)	Tier II	0.56
(Toxicodendron diversilobum Shrubland Alliance)	Tier II	0.22
Subtotal: Tier II		**11.63**
Native Vegetation Communities -Wetlands and Riparian Habitats		
Southern Riparian Woodland		
(Quercus agrifolia-Salix lasiolepis Association)		2.04
Southern Riparian Scrub		
(Salix lasiolepis Association)		2.43
Subtotal: Wetlands and Riparian Habitats		**4.47**
Nonnative Vegetation Communities[2]		
Disturbed Habitat		
Brassica (nigra) and Other Mustards Semi-Natural Stands		3.89
Carpobrotus edulis or Other Ice Plants Semi-Natural Stands		2.15
Disturbed Areas		0.28
Eucalyptus Woodland		
Eucalyptus (*globulus, camaldulensis*) Semi-Natural Stands		4.40
Subtotal: Tier IV		**6.32**
Non-Vegetated Land Types		
Urban/Developed Areas		40.95
Grand Total		**67.77**

Note: [1] Vegetation Communities considered sensitive requiring mitigation per City of San Diego Land Development Code. [2]Vegetation Communities considered not sensitive that do not require mitigation per City of San Diego Land Development code.

3.1.3.1.1 *Artemisia californica – Salvia mellifera* Association (Diegan Coastal Sage Scrub)

Artemisia californica – Salvia mellifera Association is an open canopy upland community dominated by both California sagebrush (*Artemisa californica*) and black sage (*Salvia mellifera*). Shrubs are less than 7 feet tall and sometimes two-tiered. The herbaceous understory is well-developed. This community is generally found on moderate to steep, low-elevation slopes (Sproul et al., 2011). This community is synonymous with Diegan Coastal Sage Scrub (Tier II, uncommon uplands) as described in Oberbauer (2008) and Holland (1986). Within the BSA, species observed within this community include California sagebrush, black sage, California buckwheat (*Eriogonum fasiculatum*), deerweed (*Acmispon glaber*), and poison oak (*Toxicodendron diversilobum*).

Disturbed *Artemisia californica-Salvia mellifera* Association is a sub-community wherein the community has a high percent cover (> 25%) of nonnatives due to human disturbance. This community is structurally similar to the above community but with low functionality. Disturbed *Artemisia californica-Salvia mellifera* Association is considered Tier II habitat under the City's Land Use Guidelines. Within this community, a high percent cover of hottentot-fig (*Carpobrotus edulis*) occurs as a subdominant species secondary to California sagebrush and black sage.

3.1.3.1.2 *Brassica (nigra)* and Other Mustards Semi-Natural Stands (Disturbed Habitat)

Brassica (nigra) and Other Mustards Semi-Natural Stands is a stand of nonnative annual mustards that often occupy fallow fields, grasslands, roadsides, levee slopes, disturbed scrublands, riparian areas and waste places throughout California. Depending upon the part of the state and the type and intensity of disturbance, black mustard (*Brassica nigra*), field mustard (*Brassica rapa*), Sahara mustard (*Brassica tournefortii*), shortpod mustard (*Hirschfeldia incana*), or wild radish (*Raphanus sativus*) may be dominant in the herbaceous layer. These mustards are treated as a singular type of semi-natural vegetation based on their ecological similarities. This community forms dense colonies that overtop most other plants whether they are native or nonnative. Emergent shrubs and trees may be present at low cover. Herbs are generally less than 10 feet tall (Sproul et al., 2011). *Brassica (nigra)* and Other Mustards Semi-Natural Stands are synonymous with Disturbed Areas (Tier IV, other uplands) as described in Oberbauer (2008) and Holland (1986). This community within the BSA is located along the road sides on the east and west side of Gilman Drive where the ROW is adjacent to the natural areas. Species observed within the BSA associated with this community include black mustard, wild raddish, wild oat (*Avena* spp.), prickly lettuce (*Lactuca serriola*), and brome grasses (*Bromus* spp.).

3.1.3.1.3 *Carpobrotus edulis* or Other Ice Plants Semi-Natural Herbaceous Stands (Disturbed Habitat)

Carpobrotus edulis or Other Ice Plants Semi-Natural Herbaceous Stands is a continuous stand dominated by ice plant species (*C. edulis*, *C. chilensis, Mesembryanthemum* spp.) forming continuous impenetrable mats covering large areas typically found on bluffs, disturbed lands, sand dunes of immediate coastline, and coastal and alkaline terraces. Ice plant species compete with native plants for moisture, nutrients, and space and create adverse conditions for establishment of natives (Sawyer et al., 2009). This community is synonymous with Disturbed Areas (Tier IV) or in areas where landscaped as Urban/Developed Areas (Tier IV, other uplands) according to Oberbauer (2008) and Holland (1986). This community occurs adjacent to natural areas at the south end of the project in areas adjacent to residential homes. In areas where this community occurs alongside native habitat, these large mats have overtaken and degraded the native habitats.

3.1.3.1.4 Disturbed Areas

Areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association, but continues to retain a soil substrate. Typically, vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or

ruderal exotic species that take advantage of disturbance, or shows signs of past or present animal usage that removes any capability of providing viable natural habitat for uses other than dispersal. Within the BSA a small patch of escaped ornamental species including vanilla scented wattle (*Acacia redolens*), Peruvian pepper tree (*Schinus molle*), eucalyptus (*Eucalyptus* sp.) and a small patch of arroyo willow (*Salix lasiolepis*) growing around a storm drain manhole. Other species in observed in this small patch that differentiate this community from the surrounding *Artemisia californica – Salvia mellifera* Association along the slopes, include; black mustard, tree tobacco (*Nicotiana glauca*) and nonnative brome grasses.

3.1.3.1.5 *Eucalyptus (globulus, camaldulensis)* Semi-Natural Stands (Eucalyptus Woodland)

Eucalyptus (globulus, camaldulensis) Semi-Natural Stands are non-native woodlands dominated by various eucalyptus species such as blue gum (*Eucalyptus globulus*) and red gum (*Eucalyptus camaldulensis*). Over 50 species of Eucalyptus have been introduced to California from Australia. Only a few are known to form self-perpetuating stands and have the qualities of semi-natural stands. Trees are less than 500 feet tall with an intermittent to continuous canopy. The shrub layer is intermittent. The herbaceous layer is sparse to intermittent. Originally, these species were planted as trees, groves, and windbreaks; but have since naturalized on uplands and invade riparian channels (Sproul et al., 2011; Sawyer et al., 2009). This community is synonymous with Eucalyptus Woodland (Tier IV, common uplands) as described in Oberbauer (2008). Within the BSA, lemonade berry, poison oak, and arroyo willow are associates; these are native shrubs that form a sparse, discontinuous but tall shrub layer. Large patches of hottentot-fig occur within the understory. Selloa pampas grass (*Cortaderia selloana*) occurs along the stream bed with Veldt grass (*Erharta* sp.) in localized patches away from the stream bed.

3.1.3.1.6 *Quercus agrifolia – Salix lasiolepis* Association (Southern Riparian Woodland)

Quercus agrifolia – Salix lasiolepis Association is a riparian woodland community where coast live oak (*Quercus agrifolia*) is dominant in an open to closed tree canopy with arroyo willow dominates the shrub canopy. Minor trees may include western sycamore (*Platanus racemosa*), cottonwood (*Populus* sp.), and large willow trees (*S. laevigata, S. gooddingii*); if present, these tree species must have a less than trace percent cover for this association to apply. Subdominant shrubs can include blue elderberry (*Sambucus nigra* subsp*. caerulea*), and Baccharis species. The herbaceous diversity is low and cover is generally open, including wetland affiliates such as western ragweed (*Ambrosia psilostachya*) (Sproul et al., 2011). This community is synonymous with Southern Riparian Woodland as described in Oberbauer 2008 and Holland 1986. Within the BSA this community is associated along the drainage that runs adjacent. Within the BSA, species observed include; coast live oak, arroyo willow, an unknown nonnative pine (*Pinus* sp.), date palm (*Phoenix* sp.) with pampas grass in the understory.

3.1.3.1.7 *Rhus integrifolia* Association (Coastal Sage Scrub – Chaparral Transition)

Rhus integrifolia Association is an upland community dominated by lemonade berry (*Rhus integrifolia*) often providing a continuous shrub cover. Shrubs are less than 50 feet tall and the herbaceous layer if present occurs within the openings. Although the distribution of lemonade berry is ubiquitous throughout coastal sage scrub and chaparral, the sample data analysis indicates that it associates most closely with coastal sage scrub or those chaparral associations at the margins or ecotones with coastal sage scrub (Sproul et al., 2011). This community is synonymous with Coastal Sage-Chaparral Transition (Tier II, uncommon uplands) as described in Oberbauer (2008). Within the BSA, this community is a dense monotypic stand of lemonade berry with no real herbaceous understory.

3.1.3.1.8 *Salix lasiolepis* Association (Southern Riparian Scrub)

Salix lasiolepis Association is riparian community in which arroyo willow is dominant in the shrub canopy often with *Baccharis* species (*B. salicifolia, B. pilularis*) and sandbar willow (*Salix exigua*) within the shrub canopy. Emergent riparian trees such as black willow (*Salix goodingii*) and/or red willow (*Salix laevigata*)

may occur less than 5 percent in cover and the herbaceous layer is variable. Plants are generally less than 40 feet tall and the canopy is open to continuous. The herbaceous layer is variable (Sproul et al. 2011; Sawyer et al. 2009). This community is synonymous with Southern Riparian Scrub as described in Oberbauer (2008) and Holland (1986). This shrubland community occurs along stream banks and benches, slope seeps, and stringers along drainages. Within the BSA this community occurs as a dense monotypic stand that occurs along the upper banks of drainage integrating with *Quercus agrifolia-Salix lasiolepis* Association and transitioning to more upland communities such as *Salvia mellifera-Eriogonum fasiculatum* Association and *Toxicodendron diversilobum* Shrubland Alliance. There is little species variation in this community and the herbaceous layer is present at low cover. Species observed within the BSA and include western ragweed and poison oak.

3.1.3.1.9 *Salvia mellifera – Eriogonum fasiculatum* Association (Diegan Coastal Sage Scrub)

Salvia mellifera – Eriogonum fasiculatum Association is an open upland scrub community dominated by black sage and California buckwheat with associated shrubs considered sub dominant such as coyote bush, California sagebrush, coast prickly-pear (*Opuntia littoralis*) and lemonade berry. Herbaceous cover and high and occurs within openings (Sproul et al., 2011). This community is synonymous with Diegan Coastal Sage Scrub (Tier II, uncommon uplands) as described in Oberbauer (2008). This community has been differentiated from *Artemisia californica – Salvia mellifera* Association described above, due to a higher occurrences of coyote bush and black sage and lower occurrences of California sagebrush. Within the BSA, species common within this community observed include: coyote bush, bush monkeyflower (*Diplaucus longiflorus*), black sage, California buckwheat, and California sagebrush.

Disturbed *Salvia mellifera – Eriogonum fasiculatum* Association is a sub-community wherein the community has a high percent cover (> 25%) of nonnatives due to human disturbance. This community is structurally similar to the above community but with low functionality. Disturbed *Salvia mellifera – Eriogonum fasiculatum* Association is considered Tier II habitat under the City's Land Use Guidelines. Within this community, a high percent cover of hottentot-fig and Selloa pampas grass in large stands, occur as a subdominant species secondary to black sage and California buckwheat.

3.1.3.1.10 *Toxicodendron diversilobum* Shrubland Alliance (Coastal Sage Scrub – Chapparal Transition)

Toxicodendron diversilobum Shrubland Alliance is an upland scrub community dominated by poison oak occurring alongside other upland scrub species such as California sagebrush, bush monkeyflower, black sage, lemonade berry, and blue elderberry. Within this community the shrubs are less than 40 feet tall and the canopy is intermittent to continuous and two-tiered with a variable herbaceous layer (Sproul, et al. 2011; Sawyer, et al. 2008). Within the BSA, this community is represented as a dense monotypic stand of poison oak with the occasional blue elderberry that occurs on steep slopes adjacent to the *Salix lasiolepis* Association and integrating with *Carpobrotus edulis* or Other Ice Plants Semi-Natural Stands and Disturbed *Artemisia californica-Salvia mellifera* Association. This community is synonymous with Coastal Sage-Chaparral Transition (Tier II, uncommon uplands) as described in Oberbauer (2008).

3.1.3.1.11 Urban/Developed Areas

Urban and developed areas include areas that have been permanently altered through construction of permanent structures, pavement, and/or other hardscapes. Native vegetation is no longer supported in these areas. Urban/developed also includes landscaped areas that typically require irrigation to maintain the non-native, ornamental plants growing there. Common ornamentals observed within the landscaped areas include eucalyptus, especially on the UCSD campus; fan palm, queen palm (*Syagrus romanzoffiana*); vanilla scented wattle, western coastal wattle (*Acacia cyclops*), London plane tree (*Platanus x hispanica*); Indian hawthorn (*Rhapiolepis indica*); and Cape plumage (*Plumago auriculata*). The native Torrey pine (*Pinus torreyana* subsp. *torreyana*) has also been planted throughout the survey area. Urban/developed

areas occur throughout and are the main land use within the BSA.

3.1.3.2 Common Animal Species

The above natural communities play host to a variety of common animal species. Of these species, some animals are endemic to the specific habitats in which they are found while others are generalist species and may be found using a wide variety of habitat types. These common animal species are addressed below.

Among invertebrates, butterflies like the cabbage white (*Pieris rapae*) were detected in the BSA and are wide ranging, but usually found in disturbed habitat where its weedy, invasive host plants are found. The western tiger swallowtail (*Papilio rutulus*) is found in the BSA and is a more habitat-specific butterfly; it is usually only found near riparian habitats where its native tree hosts are located.

Common reptile species found in the BSA were limited to lizard species. Lizards such as the western fence lizard (*Sceloporus occidentalis*) and the southern alligator lizard (*Elgaria multicarinata*) are found in a variety of habitats including suburban back yards, whereas the common side-blotched lizard (*Uta stansburiana*) is typically found in natural habitats like grassland and coastal sage scrub.

Common mammals detected in the BSA were limited to species like coyote (*Canis latrans*) and California ground-squirrel (*Spermophilus beecheyi*), which do not require large areas of undisturbed habitat. They can, and do, exist in small patches of habitat like grassland, chaparral, or coastal sage scrub that are found in largely developed areas.

A wide variety of bird species occur within the BSA. Species like American crow (*Corvus brachyrhynchos*) and house finch (*Carpodacus mexicanus*) can be found in all habitats, while some other species are more habitat-specific. Yellow warbler (*Dendroica petechia brewsteri*) is restricted to riparian habitats such as *Quercus agrifolia – Salix lasiolepis* Association and *Salix lasiolepis* Association observed within the BSA. California thrasher (*Toxostoma redivivum*) and wrentit (*Chamaea fasciata*) are common in chaparral and sage scrub habitats, but not typically found in grasslands or developed areas. Red-tailed hawk (*Buteo jamaicensis*) forages in a wide variety of habitats but requires large trees for nesting and will use eucalyptus woodland for nesting.

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

Sensitive plants and animals are species that are listed as endangered, threatened, or rare (for plants only) or as a candidate proposed for listing under the FESA and /or the CESA (CDFW 2016b,c); are considered a special plant or animal by CDFW (2016c, d); are species covered under the City of San Diego's MSCP Subarea Plan; and plant species considered narrow endemics under the City of San Diego's MSCP Subarea Plan (City of San Diego 1997).

Appendix F lists the sensitive species that are known from the region and also provides the sensitivity status; general habitat description; whether appropriate habitat is present or absent from the BSA; whether a particular species was observed during the surveys; and, if not observed, the probability for occurrence within the BSA. It should be noted that some of the CNDDB occurrences are very old and have either not been seen recently and are possibly extirpated or represent misidentifications.

3.1.3.3.1 Sensitive Flora

Two special-status plant species were observed during the vegetation and general botanical surveys: Torrey pine, and Palmer's sagewort (*Artemisia palmeri*). A discussion of each of these species is presented below. The occurrences of each of these species are depicted on the Sensitive Species Occurrences Map (Appendix B).

3.1.3.3.1.1 Torrey Pine (Pinus torreyana subsp. torreyana)

Torrey pine has a CNDDB Global/State Rank of G1T1/S1. This species is critically imperiled at the global level and state level (at very high risk of extinction globally and imperiled in the state due to extreme rarity often five or fewer populations, with very steep declines, or other factors that make it extremely vulnerable to extirpation from the state. Torrey pine also has a CNPS RPR of 1B.2. This species is considered rare, threatened, or endangered in California and elsewhere (moderately threatened in California) with over 20–80 percent of its occurrences threatened with a moderate degree and immediacy of threat. Torrey pine is also a covered species under the City of San Diego's MSCP subarea plan.

A total of 12 individuals of Torrey pine were observed in the BSA (Appendix B). Approximately 10 individuals occur on the west side of Gilman Drive and just northwest of Via Alicante. This stand is most likely planted as the individuals are very close together and their tall straight leader trunk is more characteristic of planted individuals than those in a natural stand. As such, the source of these individuals is likely from nursery stock, and this stand and its individuals do not represent the species' natural genome. Additionally, two individuals (one adult and one sapling) were observed along the western floodplain of the drainage adjacent to Gilman Drive. The adult may have been planted as other ornamental trees, including other pine species in this area, also appear planted. If the adult was not planted, it is likely a recruit from one of the other planted Torrey pines in the vicinity. The sapling is most likely a recruit from the adult. Similar to the other 10 individuals, the source of the two individuals is likely from nursery stock and not recruits from natural populations. Lastly, there are likely many more individuals of Torrey pine planted within the BSA as part of the landscaping. None of the individuals of Torrey pine within the BSA are likely natural stands or recruits from natural stands of this species.

3.1.3.3.1.2 Palmer's sagewort (Artemisia palmeria)

Palmer's sagewort has a CNDDB Global/State Rank of G3G4/S3. At the global level, the G3G4 assessment means the species is intermediate between the two ranks (vulnerable/apparently secure): Vulnerable (at moderate risk of extinction due to restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors; apparently secure (uncommon but not rare, some cause for long-term concern due to declines or other factors. At the state level, this species is apparently secure (uncommon but not rare in the state; some cause for long-term concern due to declines or other factors). Palmer's sagewort also has a CNPS RPR of 4.2. This species is considered a plant of limited distribution that is moderately threatened in California (with 20–80 percent of its occurrences threatened with a moderate degree and immediacy of threat.

Within the BSA, Palmer's sagewort occurs on the western floodplain of the drainage adjacent to Gilman Drive within *Salvia mellifera – Eriogonum fasiculatum* Association. There are two occurrences that are only 100 to 150 feet apart. The larger patch contains approximately 40 individuals; the smaller patch contains 10 individuals (Appendix B).

3.1.3.3.2 Sensitive Fauna

The following is a discussion of the special-status species known to occur in the impact footprint. Habitat is present in the BSA for three other special-status species (CAGN, LBVI, and southwestern willow flycatcher). These species were not detected during reviews of existing data or in surveys conducted in 2015. Protocol surveys were conducted for CAGN and LBVI in 2018 and detected CAGN within the BSA.

3.1.3.3.2.1 Coastal California Gnatcatcher [CAGN] (Polioptila californica californica)

The coastal California gnatcatcher is a federally listed threatened species by USFWS under the FESA, and is a CDFW species of special concern and is covered under the MBTA, and the MSCP. CAGN is declining proportionately with the continued loss of coastal sage scrub habitat in the six southern California counties

(San Bernardino, Ventura, Los Angeles, Orange, San Diego, and Riverside) located within the coastal plain. The species inhabits coastal sage scrub vegetation below 2,500 feet elevation in Riverside County and generally below 1,000 feet elevation along the coastal slope; it generally avoids steep slopes above 25 percent and dense, tall vegetation for nesting. The species is a local and uncommon year-round resident of southern California, with a breeding season that extends from late February through July. The territory size requirements of the CAGN vary with habitat quality.

One pair of CAGN was documented during the 2018 protocol surveys conducted for the project, on two out of the three repeat site visits within the BSA within habitat along Gilman Drive. The data from the complete survey indicate that the species is resident within the BSA as a breeding pair, based on nest building behavior and probable nesting. Additionally, this same pair was observed nesting during protocol surveys conducted for LBVI.

3.1.3.3.2.2 Least Bell's Vireo [LBVI] (Vireo belli pulillus)

The Least Bell's Vireo is a federally listed threatened species by USFWS under the FESA and state listed endangered and a covered species under the City of San Diego MSCP Subarea Plan. Historically, this subspecies was a common summer visitor to riparian habitat throughout much of California. Currently, LBVI is found only in riparian woodlands in Southern California, with the majority of breeding pairs in San Diego, Santa Barbara, and Riverside Counties. Substantial vireo populations are currently found on five rivers in San Diego County (the Tijuana, Sweetwater, San Diego, San Luis Rey, and Santa Margarita Rivers), with smaller populations on other drainages. The decline of LBVI is attributed to loss, degradation, and fragmentation of riparian habitat, combined with brood/nest parasitism by brown-headed cowbird (*Molothrus ater*; BHCO). LBVI is known to be sensitive to many forms of disturbance, including noise, night-lighting, and consistent human presence.

No LBVI were documented during the 2018 protocol surveys conducted for this project. While suitable habitat is mapped within the BSA, the drainage feature is isolated surrounded on the north, east and west by residential housing and the I-5 to the south separating this area from the larger Rose Creek to the south where known LBVI occurrences are located.

3.1.3.3.2.3 Yellow Warbler (Setophaga petechia)

The yellow warbler is a species of special concern (nesting) and is covered by the MBTA. The yellow warbler is a common to uncommon summer visitor and a rare but regular winter visitor (in coastal areas) in California. In San Diego County, it is uncommon and localized as a breeding species, but common and widespread as a migrant. The species is also a common migrant on Channel and Farallon Islands in spring and fall (DeSante and Ainley 1980; Garrett and Dunn 1981). Significant breeding pairs in the coastal lowlands of San Diego County are most widespread from Carlsbad north. Major populations within San Diego County include the Santa Margarita River and the Tijuana River Valley.

The yellow warbler is a frequent victim of the brown-headed cowbird (Rothstein et al. 1980; Verner and Ritter 1983; Airola 1986). The species is also subject to predation by small mammals, accipiters, corvids, and snakes. The numbers of breeding pairs have declined in recent decades in many lowland areas (southern coast, Colorado River, San Joaquin and Sacramento Valleys). The species is now considered rare to uncommon in many lowland areas where formerly common (McCaskie et al. 1979; Garrett and Dunn 1981). Declines are due to habitat destruction and fragmentation and pesticide use. Populations in the west, including those in San Diego County, have been shown to increase where reduction of grazing and cessation of herbicide spraying of willows has led to regrowth of riparian vegetation (Ehrlich et al. 1988).

This species nests in mature riparian woodland from coastal and desert lowlands up to 2,500 meters (8,000 feet) in the Sierra Nevada. Specifically, it prefers to nest in mature cottonwood, willow, alder, and ash trees. The yellow warbler will also breed in montane chaparral, and in open ponderosa pine and mixed conifer

habitats with substantial amounts of brush. In general, the species frequents open to medium-density woodlands and forests with a heavy brush understory in the breeding season. At low elevations, the species is more confined to larger streams; in the foothills and mountains, it will inhabit narrow strips and patches of riparian tress. Migratory stopovers include a variety of dense woodland and forest habitats.

The yellow warbler a nocturnal migrant. The species typically arrives in San Diego County during late March. Migration of populations heading farther north will occur later from April through June. Fall migration through San Diego occurs mid-August through mid-October. The species builds an open cup nest placed in upright forks of twigs in a deciduous sapling or shrub 2 to 35 feet above ground. Territories often include tall trees for singing and foraging, and a heavy brush understory for nesting (Ficken and Ficken 1966). Territory size has been recorded as 0.08 acre to 0.9 acre. The species is known to drink from a water source regularly in desert environments (Smyth and Coulombe 1971). The yellow warbler feeds mostly on insects and spiders. It will glean and hover in the upper canopy of deciduous trees and shrubs. It will also occasionally pick insects from the air or eat berries (Bent 1953; Ehrlich et al. 1988). The yellow warbler breeds from mid-April through early August with peak activity occurring in June. Pairs breed solitarily. Typically, three to six eggs are laid and incubated by the female for approximately 11 days. Altricial young are tended by both parents until fledging at 9 to 12 days (Harrison 1978). Young will breed the following year.

An individual yellow warbler was observed during 2016 general wildlife surveys on May 26, 2016. The individual was located in *Quercus agrifolia – Salix lasiolepis* Association east of Gilman Drive, adjacent to the natural drainage that runs parallel to Gilman Drive.

3.1.3.4 Aquatic Resources

A natural drainage flows south from Via Alicante along the east side of Gilman Drive. North of Via Alicante, this drainage is underground. This drainage flows through the *Quercus agrifolia - Salix lasiolepis* Association, *Salix lasiolepis*, and *Eucalyptus (globulus, camaldulensis)* Semi-Natural Stands, east of Gilman Drive, and then crosses under Gilman Drive at its intersection with the I-5 south entrance ramp. This drainage emerges on the west side of Gilman Drive in the Department ROW between Gilman Drive and the I-5 south entrance ramp as a concrete-lined channel before undergrounding at the entrance ramp and emerging at Rose Creek, another natural drainage outside of the BSA (Appendix C).

During the vegetation surveys, potential waters of the U.S. and state waters were observed within the BSA. The USFWS National Wetlands Inventory (NWI) V2 (USFWS 2016) was accessed on December 5, 2016, to determine the presence/absence of potential jurisdictional aquatic features within the BSA (Table 4). The wetland mapper (USDA-NRCS 2015) revealed mapped potential wetlands along the unnamed drainage adjacent to Gilman Drive and along Rose Creek (Appendix C). A narrow band of wetlands, corresponding to the streambed of the drainage adjacent to Gilman Drive is identified as palustrine (non-tidal) wetlands dominated by woody vegetation less than 6 meters (20 feet) in height with the presence of surface water for brief periods of the growing season. The limits of this wetland do not encompass the entire riparian canopy of this drainage, only a small portion of the canopy that corresponds to the channel bed and portions of the bank.

Table 4: Hydraulic Features within the BSA[1]			
Hydraulic Feature	**System**	**Class**	**Water Regime**
Unnamed drainage east of Gilman Drive	Palustrine (P)	Scrub-Shrub (SS)	Temporary Flooded (A)

Palustrine (P) = Non-tidal wetlands dominated by trees shrubs, emergent, mosses, or lichens and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 parts per thousand.
Scrub-Shrub (SS) = Includes areas dominated by woody vegetation less than 6 meters (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.
[1] USFWS National National Wetlands Inventory V2. Available at https://www.fws.gov/wetlands/Data/Mapper.html Accessed December 5, 2016.

A formal wetland delineation was conducted on May 8, 2018, and documented the presence of waters of the U.S. and State within the BSA (Jurisdictional Delineation Report prepared under separate cover). A total of 0.60 acre of USACE and RWQCB jurisdictional waters was delineated within the BSA and corresponds to the channel and banks of the unnamed drainage that seasonally flows within the BSA. All waters under the jurisdiction of USACE and RWQCB occur outside of the CRT footprint. A total of 5.18 acres of habitat within the BSA is considered solely under the jurisdiction of CDFW as riparian canopy; a portion of this habitat coincides with the CRT footprint.

A total of 5.79 acres of CDFW jurisdictional waters and wetlands was recorded within the BSA and corresponds to the unnamed drainage as well as the adjacent riparian habitat of *Quercus agrifolia – Salix lasiolepis* Association and *Salix lasiolepis* Association. The various riparian-associated vegetation communities associated with the stream such as *Quercus agrifolia – Salix lasiolepis* Association and *Salix lasiolepis* Association provide appreciable benefit to the channel and they are expected to be dependent on the channel. The area of Eucalyptus Stands onsite are not considered under CDFW purview and the extent of CDFW-regulated wetlands extends only to the natural banks of the feature. A portion of these CDFW jurisdictional areas coincide with the CRT footprint.

Table 5 presents the type and amount of jurisdictional features within the BSA; these features are also presented on the Biological Resources Map in Appendix C.

Table 5: Potential Jurisdictional Waters of the U.S. and State			
Waters Type	**USACE, RWQCB, CDFW Jurisdiction (acres/linear feet)**	**CDFW-only Jurisdiction (acres)**	**Total[1]**
Wetland Waters			
Salix lasiolepis Association[2]	0.06	0.71	0.77
Quercus agrifolia – Salix lasiolepis Association	0	2.04	2.04
Salix lasiolepis Association	0.04	2.43	2.48
Non-Wetland Waters			
Non-Wetland Waters of the U.S. (OHWM)	0.50/1,899	0	0.50
Total[1]	**0.60**	**5.18**	**5.79**

[1] Totals may not sum due to rounding.
[2] Scrub habitat considered wetland waters were mapped within the drainage within the understory Eucalyptus stands unassociated with the general *Salix lasiolepis* Association mapped along the drainage.

3.1.3.5 Habitat Connectivity

Suitable connectivity, or the ability of organisms to move through an area, is essential in heterogeneous

landscapes, especially in urban settings, for the persistence of healthy and genetically diverse animal communities. The BSA is situated in La Jolla Heights, a highly developed area within the City of San Diego. Natural habitat areas adjacent to Gilman Drive, are surrounded by extremely dense residential development. There is limited connectivity with the open space areas of Rose Canyon and Mt. Soledad located to the south. The I-5 corridor (roadway, ROW fencing, and non-native landscaping) creates an effective barrier to a majority of terrestrial wildlife movement. However, avian species with adequate dispersal capabilities are unlikely to be constrained by the barrier between Gilman Drive and Rose Canyon. The stream parallel to Gilman Drive flows via a culvert underneath the I-5 corridor and into Rose Canyon Creek. Small mammals may use this culvert for movement; however, culvert length may be a deterrent to these small prey species. Connectivity from the BSA to Mt. Soledad is equally as constrained where residential housing and La Jolla Parkway divides the available habitat at Mt. Soledad and in the southwest portion of the BSA.

Areas designated as the City of San Diego's Multiple Habitat Planning Area (MHPA) occur within the BSA. Within the BSA, areas designated as the City's MHPA include the unnamed stream and slopes alongside Gilman Drive as well as Rose Canyon.

4 PROJECT IMPACT ANALYSIS

4.1 PROJECT IMPACTS

The City's CEQA Significance Determination Thresholds (City 2016) are used to establish whether a proposed project may result in a 'significant effect.' A "significant effect" is defined as a "substantial or potentially substantial adverse change in the environment." Impacts to biological resources are evaluated by City staff through the CEQA review process, the ESL Regulations, and the City Biology Guidelines (City 2012), as well as through the review of a project's consistency with the City's MSCP Subarea Plan. For projects within the City or carried out by the City that may affect sensitive biological resources, potential impacts to such sensitive biological resources must be evaluated using the eight significance criteria outlined in the City's CEQA Significance Determination Thresholds (City 2016). Each of these criteria is addressed in this section.

4.1.1 Criterion 1 (Sensitive Species)

Would the proposed project have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies, or regulations, or by CDFW or USFWS?

4.1.1.1 Criterion 1 Impact Analysis

Of the 78 special status flora with a potential to occur within the BSA, 32 species are considered covered under the MSCP and/or narrow endemics. One MSCP-covered species was observed within the BSA (Torrey Pine), but occurred outside of the Project impact area. One special status flora, Palmer's sagewort (*Artemisia palmeri*), would be directly impacted by implementation of the Project. Of the 38 special status fauna species with a potential to occur within the BSA, 11 species are considered covered under the MSCP. One MSCP-covered species, Coastal California Gnatcatcher would be directly impacted by permanent loss of occupied habitat by implementation of the Project. Detailed Avoidance and Minimization Measures can be found in Section 5 below, but will be referenced in the individual analysis of each special status species description.

4.1.1.1.1 Sensitive Flora

4.1.1.1.1.1 Torrey Pine

Torrey pine is a CRPR List 1B.2 and MSCP-Covered species; thus take of this species is allowed for projects that comply with the City's MSCP implementing regulations. The following is the MSCP condition of coverage for this species (Subarea Plan Appendix A):

This species will be covered by the MSCP because the single naturally occurring population at Torrey Pines State Reserve will be conserved and appropriately managed.

No area specific management directives exist for this species outside the Torrey Pines State Reserve. Most occurrences outside of the Torrey Pines State Reserve are the result of landscaping. Approximately 12 individuals were observed and mapped within the BSA (Attachment A-2). These individuals most likely are the result of landscaping. Implementation of CRT would not directly affect this species as all occurrences occur outside of the project footprint. Additionally, implementation of AMM-1, AMM-2, AMM-4, and AMM-5 will ensure impacts to this species is avoided.

4.1.1.1.1.2 Palmer's sagewort

Palmer's sagewort is not an MSCP-Covered species. Approximately 50 individuals have been mapped within the BSA within the western floodplain of the drainage that runs parallel and adjacent to Gilman Drive (Attachment A-2). Implementation of CRT will directly impact a polygon of 18 individuals found within the grading limits. This species is has a CRPR List 4 ranking in which this species is considered a plant of limited distribution that is moderately threatened in California. All of the occurrences of this species can be found within San Diego County. Removal of 18 individuals will not impact the overall population within the BSA and will not significantly impact this species overall. Mitigation is not required. To further protect this species, implementation of AMM-1, AMM-2, and AMM-3, will ensure further impacts to this species is avoided during construction. This species will be added to the planting plan for the 25-month revegetation plan for the project.

4.1.1.1.2 Sensitive Fauna

4.1.1.1.2.1 Coastal California Gnatcatcher

Coastal California Gnatcatcher a federal-listed threatened and MSCP-Covered species; thus, take of this species is allowed for projects that comply with the City's MSCP implementing regulations. The following is the MSCP condition of coverage for this species (Subarea Plan Appendix A):

Area specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No clearing of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.

Direct impacts to occupied CAGN habitat within the MHPA are anticipated but will not significantly impact the species population in the region. To avoid impacts to the species, habitat would not be cleared during the nesting season, or protocol surveys would be conducted to determine the presence/absent within occupied habitat (AMM-7). No occupied habitat would be removed during the nesting season. Areas where vegetation have been removed will be revegetated per the City Landscape Standards to coastal sage scrub habitat following construction, and are anticipated to improve habitat quality so long term impacts to the species is not anticipated. The location of impacts will avoid edge effects and the expanse of adjacent habitat will ensure that the individuals have access to ample territory for foraging and nesting while the temporarily impacted areas undergo revegetation. Implementation of CRT has the potential to have indirect effects on CAGN resulting from construction noise during the breeding season. Compliance with the MHPA Land Use Adjacency Guidelines and Implementation of AMM-1, AMM-3, and AMM-4 will ensure that impacts are avoided. Therefore, significant impacts to the species and overall population is not anticipated and mitigation is not required.

4.1.1.1.2.2 Yellow Warbler

Yellow warbler is not an MSCP-Covered species. An individual yellow warbler was observed during 2016 general wildlife surveys on May 26, 2016. The individual was located in *Quercus agrifolia – Salix lasiolepis* Association (riparian woodland) east of Gilman Drive, adjacent to the natural drainage that runs parallel to Gilman Drive. This species was not observed to be nesting within suitable habitat during protocol surveys conducted for LBVI and CAGN. Implementation of this Project will not impact this species. To further ensure that the Project will not impact the Yellow Warbler, the project will implement avoidance and minimization measures (AMM-1, AMM-3, and AMM-4) during construction. Mitigation for this species is not required.

4.1.1.1.2.3 Least Bell's Vireo

Least Bell's Vireo a federal-listed endangered, state-listed threatened and MSCP-Covered species; thus, take of this species is allowed for projects that comply with the City's MSCP implementing regulations. The following is the MSCP condition of coverage for this species (Subarea Plan Appendix A):

Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. Jurisdictions must require new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds to monitor and control cowbirds. Area specific management directives must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the nesting period).

No LBVI were observed within the BSA during protocol surveys. While it has been over two years since the surveys were conducted, compliance with the MHPA Land Use Adjacency Guidelines and implementation of Avoidance and Minimization Measures will ensure impacts to this species would be avoided. The Project will not significantly impact this species and mitigation is not required.

4.1.2 Criterion 2 (Environmentally Sensitive Lands)

Would the proposed project have a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

4.1.2.1 Criterion 2 Impact Analysis

Three native upland habitats considered ESL, four nonnative habitats, and one non-vegetated land types were mapped within the BSA (Appendix B). The permanent direct loss of habitat would be the replacement of vegetation with an impervious road surface. Temporary direct impacts are associated with grading beyond the limits of the hard surface. These latter areas have the potential for recovery (through revegetation) and so impacts are assessed as temporary. The Land Use Development Code (Biology Guidelines) do not distinguish direct impacts to vegetation between temporary and permanent impacts and mitigation is determined for direct impacts regardless of permanent and temporary loss of vegetation. Below is a table summarizing impacts to all mapped habitat inside and outside the MHPA and mitigation required. Impacts to upland ESL is considered significant requiring mitigation as detailed in Table 6. Direct impacts to Tier II habitat total 2.022 acres (0.257-acre inside the MHPA, 1.765 acres outside the MHPA) will be mitigated at a 1:1 ratio for a total of 2.022 acres. Mitigation will be implemented through monetary compensation into the City of San Diego's Habitat Acquisition Fund as detailed in Section 5: BIO-1. Mitigation into the HAF for this Project is necessary and would be appropriate as pockets of ESL within the BSA are isolated and surrounded by Urban/Developed areas, mainly residential housing. There is no connectivity to existing Open Space or other natural areas that would provide wildlife corridors or habitat connectivity. These areas provide minimal habitat quality for special status or MSCP-Covered species. In addition, mitigation onsite in the MHPA would not be feasible for this Project, because the underlying land use is designated as a privately-owned conservation easement. Temporary impacts from construction will be revegetated through a 25-month revegetation plan and further summarized in Section 5: AMM-8 and will provide an overall increase in native habitat because large nonnative dominated areas (i.e. *Carpobrotus edulis* or Other Ice Plants Semi-Natural Stands and *Brassica (nigra)* and Other Mustards Semi-Natural Stands) will be revegetated with native upland species. In addition, implementation of avoidance measures during construction as detailed in Section 5: AMM-1, AMM-2, AMM-3, AMM-5, and AMM-6 will ensure further impacts to ESL are avoided.

Table 6. Project Impacts on Vegetation Communities/Land Uses (Acres)

Vegetation Communities	Tier Level	Impacts Inside MHPA (acres)[1]					Impacts Outside MHPA (acres)[1]					Total Mitigation Required
		Perm	Temp	Total	Mitigation Ratio	Mitigation Required	Perm	Temp	Total	Mitigation Ratio	Mitigation Required	
Native Vegetation Communities -Uplands												
Diegan Coastal Sage Scrub												
(*Artemisia californica – Salvia mellifera* Association)	II	0	0	0	1:1	0	0.129	0.729	0.858	1:1	0.858	0.858
(*Salvia mellifera - Eriogonum fasiculatum* Association)	II	0	0	0	1:1	0	0.028	0.371	0.399	1:1	0.399	0.399
Disturbed Diegan Coastal Sage Scrub												
(Disturbed *Artemisia californica –Salvia mellifera* Association)	II	0.225	0.009	0.234	1:1	0.234	0	0.095	0.095	1:1	0.095	0.329
(Disturbed *Salvia mellifera – Eriogonum fasiculatum* Association)	II	0	0	0	1:1	0	0.039	0.206	0.245	1:1	0.245	0.245
Coastal Sage-Chaparral Transition												
(*Toxicodendron diversilobum* Shrubland Alliance)	II	0	0.023	0.023	1:1	0.023	0.029	0.139	0.168	1:1	0.168	0.191
Subtotal: Tier II		**0.225**	**0.032**	**0.257**		**0.257**	**0.225**	**1.540**	**1.765**		**1.765**	**2.022**
Native Vegetation Communities -Wetlands and Riparian Habitats												
Southern Riparian Woodland												
(Quercus agrifolia – Salix lasiolepis Association)	wetlands	0.012	0.016	0.028	3:1	0.084	0	0	0	3:1	0	0.084
Southern Riparian Scrub												
(Salix lasiolepis Association)	wetlands	0	0.074	0.074	2:1	0.148	0.015	0.181	0.196	2:1	0.392	0.540
Subtotal: Wetland		**0.012**	**0.090**	**0.102**	**0.000**	**0.232**	**0.015**	**0.181**	**0.196**	**0.000**	**0.392**	**0.624**
NonNative Vegetation Communities												
Disturbed Habitat												
Brassica (nigra) and Other Mustards Semi-Natural Stands	IV	0.019	0	0.019	0:1	0	0.782	0.404	1.186	0:1	0	0.000
Carpobrotus edulis or Other Ice Plants Semi-Natural Stands	IV	0.001	0.046	0.047	0:1	0	0.493	1.046	1.539	0:1	0	0.000
Disturbed Areas	IV	0	0	0	0:1	0	0.090	0	0.090	0:1	0	0.000
Eucalyptus Woodland												
Eucalyptus Semi-Natural Stand	IV	0.027	0.100	0.127	0:1	0	0.007	0.009	0.016	0:1	0	0.000
Subtotal: Tier IV		**0.047**	**0.15**	**0.19**		**0**	**1.372**	**1.46**	**2.83**		**0**	**0.000**
Non-Vegetated Land Types												
Urban/Developed Areas	N/A	0	0	0	0:1	0	19.384	0	0	0:1	0	0.000
Subtotal: Non-Vegetated Land Type		**0**	**0**	**0**		**0**	**19.38**	**0**	**0**		**0**	**0.000**

4.1.3 Criterion 3 (Wetlands)

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

4.1.3.1 Criterion 3 Impact Analysis

All USACE/RWQCB/CDFW jurisdictional waters (bed and bank, wetlands, ordinary high water mark [OHWM]) that were recorded within the BSA occur outside of the CRT footprint and would not be impacted by implementation of CRT. The proposed project will directly impact riparian habitat under the jurisdiction of CDFW considered canopy and associated with the jurisdictional waters. Removal of riparian habitat resulting from implementation of this project would not result in impacts to the hydrologic function of the jurisdictional feature. The feature is outside of the project impact area. Stream flow would be unaffected. The main function of water recharge and stream flow of the earthen channel remains unaffected by implementation of the Project . Riparian habitat is considered "wetlands" under the City's Land Development Code Biology Guidelines (Biology Guidelines). Impacts to wetlands are summarized in the table below. Impacts to the riparian habitat associated with the unnamed drainage that are jurisdictional under CDFW will require a Streambed Alteration Agreement. In addition, impacts are considered significant under CEQA and will require mitigation. The Land Use Development Code (Biology Guidelines) do not distinguish direct impacts to vegetation between temporary and permanent impacts; however, to determine appropriate mitigation for City Wetlands, distinguishing between permanent loss and temporary impacts is necessary to assure "no net loss" of wetland function and values.

Table 7 Impacts to Jurisdictional Resources

Feature	Impacts (acres/[square feet], LF)							
	Cowardin Class	Summary of OHWM/Wetland Presence	USACE/RWQCB		CDFW		City Wetlands	
			Perm	Temp	Perm	Temp	Perm	Temp
Unnamed drainage east of Gilman Drive.	Palustrine (P)	*Quercus agrifolia – Salix lasiolepis* Association (riparian woodland)	0	0	0.012	0.016	0.012	0.016
		Salix lasiolepis Association (riparian scrub)	0	0	0.015	0.255	0.015	0.255
TOTAL			**0**	**0**	**0.027**	**0.271**	**0.017**	**0.271**

4.1.3.1.1 Deviation from Environmentally Sensitive Lands Regulation for Impact to Wetland

The MSCP Subarea Plan (City 1997), City Land Development Code (LDC) Environmentally Sensitive Lands (ESL) Regulations, and Biology Guidelines (City 2018), require that impacts to wetlands shall be avoided, and that a sufficient wetland buffer shall be maintained to protect the functions and values of wetland resources. Wetland deviations outside the Coastal Overlay Zone may be granted only if the proposed project qualifies under one of the following three options: (1) Essential Public Projects (EPP), (2) Economic Viability, or (3) Biologically Superior Option. Deviations from wetland requirements in Environmentally Sensitive Lands will be considered under the EPP Option when a proposed project(s) meets all the following criteria:

- The project must be an EPP (i.e., circulation element road, trunk sewer, water main) that will service the community at large and not just a single development project or property. The project must meet the definition of an EPP as identified in Section IV and must be essential in both location and need. If the City has options on the location of an EPP, the City should not knowingly acquire property for an EPP that would impact wetlands.

- The proposed project and all biological alternatives, both practicable and impracticable, shall be fully described and analyzed in an appropriate CEQA document. Alternatives to the proposed project shall be comprehensively included in the CEQA document (e.g., Mitigated Negative Declaration) and/or the biological technical report for the CEQA document. Alternatives must include the following: (1) a no project alternative; (2) a wetlands avoidance alternative, including an analysis of alternative sites irrespective of ownership; and (3) an appropriate range of substantive wetland impact minimization alternatives. Public review of the environmental document must occur pursuant to the provisions of CEQA. Projects proposing to utilize this deviation section of the Environmentally Sensitive Lands after initial CEQA public review must include the new information and recirculate the CEQA document.
- The potential impacts to wetland resources shall be minimized to the maximum extent practicable and the project shall be the least environmentally damaging practicable biological alternative considering all the technical constraints of the project (e.g., roadway geometry, slope stability, geotechnical hazards, etc.). Recognizing the wetland resources involved, minimization to the maximum extent practicable may include, but is not limited to, adequate buffers and/or designs that maintain full hydrologic function and wildlife movement (e.g., pipeline tunneling, bridging, Arizona crossings, arch culverts). The project applicant will solicit input from the USFWS and the CDFW (e.g., Wildlife Agencies) prior to the first public hearing.

The proposed project qualifies as an Essential Public Project, as it would service the community at large and not just a single development project or property, and is essential in both location and need. The Gilman Drive segment is essential to the larger CRT project and the goal of meeting future projected multi-use trail needs in the region. The proposed project is included as a "Planned Class IV" within the University Community Plan Update (2018) to improve and expand alternative transportation within the community. The proposed project aims to develop a new cycle track within the designated existing ROW (Gilman Drive). There is currently an existing Class I bike lane on the east side of Gilman Drive adjacent to the MHPA. The project aims improve the existing Class I bike lane to be physically separated (i.e. barriers) from the traffic to protect riders. The proposed project was designed to avoid and minimize impacts to jurisdictional resources to the greatest extent feasible by excluding installation of a sidewalk on the east side to minimize impacts to native upland and riparian vegetation.

The proposed project (Option 2), and the following alternatives (Options 1 and 3) were considered to avoid impacts to wetlands and other sensitive habitats along the Gilman Drive segment of the CRT project (Table 8). It should be noted that there are no feasible alternatives that could relocate the Gilman Drive segment outside of the current alignment. All proposed options propose minimum standard roadway lane widths to reduce the roadway/cycle track footprint and reduce impacts into the sensitive habitat. The alternatives analyzed consider the design constraints and various options to reduce grading and impacts required for the cycle track construction.

Table 8: Summary of Alternative Design Impacts to CDFW and City "Wetlands"

Water Type	Option 1: Original Design Incorporating Caltrans Cycle Track[1]			Option2 (Proposed): 2-foot Recovery Area with 2:1 Slopes[2]			Option 3: Design Incorporating Caltrans Cycle Track and Addition of Walls[3]		
	Perm	**Temp**	**Total**	**Perm**	**Temp**	**Total**	**Perm**	**Temp**	**Total**
CDFW Jurisdictional and City ESL Wetlands									
Quercus agrifolia – Salix lasiolepis Association (riparian woodland)	0.015	0.012	0.027	0.012	0.016	0.028	0.008	0.002	0.012
Salix lasiolepis Association (riparian scrub)	0.022	0.374	0.396	0.015	0.255	0.270	0.017	0.159	0.176
Total	**0.037**	**0.386**	**0.423**	**0.027**	**0.271**	**0.298**	**0.025**	**0.161**	**0.188**

4.1.3.1.1.1 Option 1, Original Proposed Project with Caltrans Cycle Track (Appendix D1).

Option 1 was the original 60% design that incorporated comments from Caltrans and proposes a 6-foot recovery area adjacent to the cycle track. Within the Caltrans ROW, a narrower Cycle Track with a reduced width buffer is proposed, which eliminates the necessity of grading into the sensitive habitat area adjacent to the Caltrans ROW. The larger recovery area results in the larger permanent and temporary impact area on the adjacent sensitive habitats. Constructing this option would impact wetlands regulated by both the City and CDFW, including 0.386-acre of temporary impacts to *Salix lasiolepis* Association and *Quercus agrifolia – Salix lasiolepis* Association and an additional 0.037-acre of permanent impacts to *Salix lasiolepis* Association and *Quercus agrifolia – Salix lasiolepis* Association for a total of 0.423-acre of impacts to City wetlands

4.1.3.1.1.2 Option 2, Proposed Project (Project Chosen Option), 2-foot Recovery Area with 2:1 Slopes (Appendix D2).

Option 2 is the chosen alternative for this project as it considers impacts to both wetland and CAGN habitat. Option 2 reduces the amount of permanent and temporary impacts in comparison to Option 1 and reduces the permanent impacts to CAGN habitat in comparison to Option 3. Option 2 includes a 2-foot recovery area adjacent to the cycle track, protective fencing at the top of the slope, and a 2:1 graded slope ratio to meet the existing grade. In comparison with Option 1, the reduced width of the recovery area results in less grading and impacts because it requires a shorter distance for the trail to match the existing grade. This alteration directly results in reduced impacts to wetlands when compared with Option 1. Constructing this option would impact wetlands regulated by both the City and CDFW, including 0.271-acre of temporary impacts to *Salix lasiolepis* Association and *Quercus agrifolia – Salix lasiolepis* Association and an additional 0.027-acre of permanent impacts to *Salix lasiolepis* Association and *Quercus agrifolia – Salix lasiolepis* Association for a total of 0.298-acre of impacts to City wetlands. In addition, Option 2 is an improvement on Option 1 as it includes construction of a fence at the top of the slope which would prevent further encroachment from the public into sensitive areas. In comparison to Option 3, the difference in permanent impacts to wetlands is minimal (Option 2 = 0.027acre and Option 3 = 0.025 acre). However, Option 2 does have increased temporary impacts in comparison to Option 3 (Option 2 = 0.298 acre and Option 3 0.161

acre). This option was chosen as the Preferred Option because Option 3, while less impacts overall to riparian habitat, would result in a larger permanent loss of upland ESL occupied by CAGN. Option 2 outlines that all temporary wetland impacts would be revegetated with wetland species through a 25-month maintenance and monitoring period. This will result in no long-term net loss of habitat in association with temporary impacts, making this Option 2 superior to Option 3. In addition, significant impacts will also be mitigated at the Stadium Mitigation Site, which is a larger contiguous wetland with higher restoration value. Having a no net loss of wetland habitat due to temporary impacts while decreasing impacts to CAGN habitat makes this the environmentally preferred option.

4.1.3.1.1.3 Option 3, Design Incorporating Caltrans Cycle Track and Addition of Walls (Appendix D3).

This option attempted to reduce the impacts to wetlands by utilizing retaining walls near wetland habitats. This would result in a decrease in the required grading area for the Project when compared to Options 1 and the Preferred Option. This option includes a reduced 2-foot recovery area, a protective fence, and retaining walls to eliminate grades slopes in areas adjacent to sensitive habitats. Walls would be intermixed with slope grading in other areas where impacts were not in sensitive habitat areas. Construction of this option would impact wetlands regulated by both the City and CDFW, including 0.161 acre of temporary impacts to *Salix lasiolepis* Association and *Quercus agrifolia – Salix lasiolepis* Association and an additional 0.025-acre of permanent impacts to *Salix lasiolepis* Association and *Quercus agrifolia – Salix lasiolepis* Association for an overall total of 0.188-acre of impacts to City wetlands. While Option 3 would result in decreased impacts to wetlands when compared to Options 1 and the Preferred Option, Option 3 has larger impacts to upland ESL occupied by CAGN than the Preferred Option. Protocol surveys show that CAGN utilize the upland ESL adjacent to jurisdictional waters. Option 3 results in 0.792-acre of impact to *Salvia mellifera - Eriogonum fasiculatum* Association and its disturbed form which was occupied CAGN habitat. The Preferred Option would result in 0.644-acre of impact to occupied CAGN habitat. Implementation of Option 3 would increase impacts to occupied CAGN habitat more than a tenth of an acre, including a permanent loss of occupied habitat to impervious surface of 0.101-acre. Option 3 also results in the construction of a large structure (retaining walls) within the MHPA and an increase in construction and noise related impacts due to increased construction time associated with the wall; this has the potential to indirectly impact CAGN found adjacent to the Project impact area.

4.1.3.1.1.4 Option 4, No Project Alternative.

Under this option, no corridor of multi-use, cycle track, or continuous sidewalk would be incorporated along this segment of Gilman Drive, and no impacts to wetland or riparian vegetation would occur. An essential regional segment of the CRT project would not be completed.

The No Project Alternative (Option 4) would be considered the “wetland avoidance alternative”. As a result of not implementing the Project, would not meet the larger purpose of the CRT project of providing 40 miles of continuous corridor of multi-use, Class I, Class II, and Class III bicycle facilities along railroad ROWs and is included in the University Community Plan for expansion and upgrades of their bike lane systems. Option 2 is considered the Preferred Option. This option would have overall fewer impacts than Option 1 by a tenth of an acre as summarized in Table 8. While Option 3 is overall the least environmentally damaging alternative to City wetlands, this option would have a greater permanent loss of riparian habitat (Table 8) and replaced with an impervious surface in addition to creating an increase of permanent loss of occupied CAGN habitat and larger sustained indirect impacts to facilitate minimizing impacts to City wetlands.

4.1.3.1.1.5 Mitigation Strategy

Impacts to wetlands and CAGN habitat would be minimized to the maximum extent practicable. The current design proposes a sidewalk only on the western side of the alignment. A pedestrian sidewalk is not proposed along the eastern alignment adjacent to the natural drainage in order to minimize impacts to

wetlands. Drainage improvements proposed will alleviate the sediment deposits caused by erosion under the current failed drainages. To protect wetlands during constructions, implementation of, AMM-1, AMM-2, AMM-3, and AMM-6 will ensure further impacts to riparian habitats are minimized and avoided. All wetland impacts would be mitigated according to the requirements of Table 2a of the City's Land Development Manual – Biology Guidelines (City of San Diego 2018).

As summarized in Table 6, impacts to *Quercus agrifolia – Salix lasiolepis* Association (riparian woodland) will be mitigated at a 3:1 ratio and impacts to *Salix lasiolepis* Association (riparian scrub) will be mitigated at a 2:1 ratio, both consistent with City Guidelines and what is typically required by the CDFW. Per BIO-1, Permanent and temporary impacts to riparian habitats (wetlands) will be mitigated offsite through the use of credits at the City's Stadium Wetland Mitigation Site located within the San Diego River.The service area for the Stadium Wetland Mitigation Site does includes Los Peñasquitos Watershed, where the Project is located. Permanent loss of riparian habitat under the jurisdiction of CDFW and the City will be offset with riparian rehabilitation credits. Temporary loss of riparian habitat under the jurisdiction of CDFW and the City will be offset with riparian enhancement credits. As discussed above, the project will impact riparian habitat considered canopy, but impacts to the jurisdictional resources (federal wetlands, OHWM, bed and bank) will be avoided during implementation of the Project. The main functions and values of the jurisdictional resource remain intact. Hydrological functions (i.e. stream flow) and will not be impacted, Biochemical functions (i.e. water recharge) remain undisturbed. Habitat function is of low value in this area as described above. The jurisdictional feature is an isolated feature separated from Rose Canyon Creek by the I-5. As evidence from protocol surveys, LBVI does not utilize this area whereas, this species is known to utilize similar less disturbed areas downstream. The physical barriers of urbanizations prevent wildlife movement.

As described above, the impact to the functions and values of the adjacent wetland from the loss of 0.017-acre of City wetlands is minimal. Mitigation of the impacts with 0.650-acre of buffer riparian forest enhancement and 0.020 of buffer riparian forest rehabilitation credit offset any potential impacts to the functions and values of the wetlands and will result in an overall gain in both.. Most of the impacts to City wetlands is to riparian scrub habitat which is considered to have less function and value than riparian woodland and forest in terms of special status avian species (i.e. LBVI). In addition, implementation of AMM-6 will include a revegetation plan that will include a 120-day Plant Establishment Period and 25-month maintenance and monitoring period. Where a 2-foot recovery area is adjacent to wetlands, slopes will be revegetated with native upland species and riparian scrub species that will provide a naturalized buffer to adjacent wetlands. Implementation of this Preferred Option will create a 2:1 recovery slope that, in addition to providing a naturalized buffer to adjacent wetlands, will also remove large portions of nonnative vegetation from the project site and prevent further encroachment into wetland areas.

Based on the analysis provided above, the proposed project qualifies for a deviation from the ESL Regulations for impacts to wetlands under the EPP option.

4.1.3.1.2 Wetland Buffers

The proposed project was designed to minimize to greatest extent feasible, impacts to wetlands and CAGN habitat such as development of sidewalk only on the east side of Gilman Drive. However, impacts to wetlands and adjacent areas are unavoidable. The project will construct a 2-foot recovery slope along the west side of Gilman Drive adjacent to the cycle track. The existing conditions onsite provide a wetland buffer of approximately 5-feet to over 100-feet between the road and wetlands. The failure of storm drains along the road has resulted in the formation of wetland habitat branching away from the main channel/wetland up to the existing roadway. The buffer distance between the main stream channel and existing roadway is 100 to over 200-feet. After implementation of this project, there would be an approximate 20 foot loss of vegetated buffer.

The existing habitat within the buffer is a combination of native and non-native habitat. Areas temporarily

impacted by this project would be revegetated with native habitat; therefore resulting in an increase in the quality of habitat found in the buffer. Current damaged and degraded storm drains would be replaced per existing design guidelines, This improvement would reduce water velocities, discharge water lower on the slope, and result in less erosion to the buffer. A fence/barrier would be installed along the boundary of the project, protecting the wetland and buffer from intrusion.

While the proposed project would result in a slight reduction of the wetland buffer (20-feet), overall the project would result in a net benefit to the quality and function of the buffer. Therefore providing an increase to the function and values of the adjacent wetlands.

Construction of a fence at the top of the slope would prevent further encroachment from the public into sensitive areas. Installation of a 2:1 recovery slope would be revegetated with native upland and riparian vegetation that would provide native buffer habitat separating the more developed areas along Gilman from the earthen channel. Once construction is complete, the slope will be revegetated with native upland species as well as riparian scrub species that will provide a naturalized upland buffer to adjacent riparian habitat.

4.1.4 Criterion 4 (Wildlife Corridors)

Would the proposed project interfere substantially with the movement of any native, resident, or migratory fish or wildlife species or with established native, resident, or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?

4.1.4.1 Criterion 4 Impact Analysis

The Project area is not identified as an MSCP regional wildlife corridor. Natural habitat areas adjacent to Gilman Drive, are surrounded by extremely dense residential development. There is limited connectivity with the open space areas of Rose Canyon and Mt. Soledad located to the south. The I-5 corridor (roadway, ROW fencing, and non-native landscaping) creates an effective barrier to a majority of terrestrial wildlife movement. However, avian species with adequate dispersal capabilities are unlikely to be constrained by the barrier between Gilman Drive and Rose Canyon. The stream parallel to Gilman Drive flows via a culvert underneath the I-5 corridor and into Rose Canyon Creek. Small mammals may use this culvert for movement; however, culvert length may be a deterrent to these small prey species. Connectivity from the BSA to Mt. Soledad is equally as constrained where residential housing and La Jolla Parkway divides the available habitat at Mt. Soledad and in the southwest portion of the BSA. The proposed project does not add any additional barriers or structures that would interfere in wildlife movement or impede the use of nursery sites. The proposed project does propose a fence at the top of the 2-foot recovery slope adjacent to the cycle track parallel to the natural habitats within the drainage; however, installation of the fence is a public safety measure and to prevent encroachment into the natural areas by the public.

4.1.5 Criterion 5 (MSCP Consistency)

Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?

4.1.5.1 Criterion 5 Impact Analysis

The proposed project is not anticipated to conflict with the requirements of any local, regional, or state conservation plans. The proposed project involves construction of a new one-way cycle track and sidewalk within the existing ROW along Gilman Drive. The proposed project is consistent with the City's MSCP Subarea Plan.

4.1.5.1.1 MHPA Consistency Analysis

Table 9 Multiple Species Conservation Program General Planning Policies and Design Guidelines Consistency		
MHPA General Planning and Policies Section 1.4.2 of the MSCP Subarea Plan	**Applicability**	**Implementation**
Roads and Utilities - Construction and Maintenance Policies		
1. All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way and disturbed areas, minimizing habitat fragmentation.	Not Applicable. No new utility lines will be installed as part of the Project.	Not Applicable.
2. All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP covered species, and wetlands. If avoidance is infeasible, mitigation will be required.	Not Applicable. No new utility lines will be installed as part of the Project.	Not Applicable.
3. Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.	Temporary construction staging and stockpile area will be located within the existing ROW along Gilman Drive. There will be temporary construction impacts to the MHPA in order to construct the 2-foot recovery slope.	Temporary access, staging and stockpile will be located in the existing ROW in order to minimize impacts to the MHPA. Unavoidable temporary impacts to the MHPA will be minimized through AMM-1, AMM-2, AMM-3, and AMM-6. Compensatory mitigation will be implemented r to offset impacts through BIO-1.
4. Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage. Environmental documents and mitigation monitoring and reporting programs covering such development must clearly specify how this will be achieved, and construction plans must contain all the pertinent information and be readily available to crews in the field. Training of construction crews and field workers must be conducted to ensure that all conditions are met. A responsible party must be specified.	Due to the developed nature of the areas surrounding the MHPA within the proposed project, there is limited habitat connectivity and wildlife movement is limited from the MHPA within biological study area by the I-5 south to open space in Rose Canyon and Mt. Soledad.	Construction will be mainly limited to the existing ROW and implementation of AMM-1, AMM-2, AMM-3, and AMM-4 will minimize impacts to wildlife using the site.
5. Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.	The project is included as a "Planned Class IV" within the University Community Plan Update (2018). The proposed project aims to develop a new cycle track within the designated existing ROW (Gilman Drive). There is currently an existing Class I bike lane on the east side of Gilman Drive adjacent to the MHPA. The project aims improve the existing Class I bike lane to be physically separated (i.e. barriers) from the traffic.	Maintenance and emergency access roads will still remain within the existing ROW along Gilman Dr.

Table 9 Multiple Species Conservation Program General Planning Policies and Design Guidelines Consistency		
MHPA General Planning and Policies Section 1.4.2 of the MSCP Subarea Plan	**Applicability**	**Implementation**
6. Development of roads in canyon bottoms should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road must be designed to cross the shortest length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully-functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable. Fencing, grading and plant cover should be provided where needed to protect and shield animals, and guide them away from roads to appropriate crossings.	Not Applicable.	Not Applicable.
7. Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.	The project does no propose to widen Gilman Drive to facilitate vehicle traffic. The current traffic lanes still remain in place. The proposed project aims to develop the existing Class I bike lane into a Class IV bike lane that is physically separated (i.e. barriers) from vehicular traffic.	The proposed project aims to develop a cycle track on both sides of Gilman Drive but is not constructing a sidewalk on the east side of Gilman Drive to minimize impacts into the MHPA adjacent to Gilman Drive. In addition, Implementation of AMM-1, AMM-2, AMM-3, and AMM-4 will minimize impacts to the MHPA and wildlife movement and breeding areas.
8. For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management Section 1.5.	The proposed project aims to develop a new cycle track along the existing ROW along Gilman Drive.	Construction of the new cycle track along the existing ROW will occur from within the existing ROW along Gilman Drive and is considered a compatible use within the MHPA.
Fencing, Lighting, and Signage		
1. Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the MHPA. For example, use chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats (e.g., vernal pools).	A 2-foot recovery slope will be constructed adjacent to the cycle track. A new chain-link fence will be installed at the top of the slope.	The fence will be located immediately adjacent to the cycle track to minimize intrusion into the MHPA. It will also provide a safety barrier by not allowing members of the public on the slope.
2. Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife **crossings** should be of low- sodium or similar lighting. Signage will be limited to access and litter control and educational purposes.	Permanent street lighting is proposed along the cycle track.	Lighting is necessary as a safety measure and will be designed with shield to shine only along the cycle track and away from the MHPA. All lighting will be directed and shielded to avoid direct lighting into MHPA areas. During operation of the proposed project, lighting will conform with the requirements of San Diego Street Design Manual (City of San Diego 2017), as well as the San Diego Municipal Code §142.0740, which states that, “Outdoor lighting used for security purposes or to illuminate walkways, roadways, equipment yards,

Table 9 Multiple Species Conservation Program General Planning Policies and Design Guidelines Consistency		
MHPA General Planning and Policies Section 1.4.2 of the MSCP Subarea Plan	**Applicability**	**Implementation**
		and parking lots may remain lighted after 11:00 p.m. only when low-pressure sodium outdoor lighting fixtures are used." Additionally, "On properties [that] are adjacent to or contain sensitive biological resources, any exterior lighting shall be limited to low-level lights and shields to minimize the amount of light entering any identified sensitive biological resource areas." Lighting impacts are expected to be less than significant with the incorporation of these measures. No nighttime construction that would require temporary lighting is proposed for the project. As such, no significant impacts to sensitive wildlife from artificial lighting from project construction is anticipated
Materials Storage		
Prohibit storage of materials (e.g., hazardous or toxic, chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, especially due to potential leakage.	No storage or hazardous or toxic materials is proposed within the MHPA. Any necessary storage for construction would be done in accordance with relevant materials safety regulations.	The project will stage and store materials within the existing ROW.
Mining, Extraction, and Processing Facilities: Not Applicable to the current project.		
Flood Control: Not Applicable to the current project.		

4.1.5.1.2 General Planning and Design Guidelines (§1.4.2)

Table 10 Multiple Species Conservation Program General Management Directives		
MHPA General Management Directives Section 1.5.2 of the MSCP Subarea Plan	**Applicability**	**Implementation**
Mitigation:		
Mitigation, when required as part of project approvals, shall be performed in accordance with the City of San Diego Environmentally Sensitive Lands (ESL) Ordinance and Biology Guidelines	The proposed project will impact a total of 2.022 acres of Tier II habitat and 0.2986-acre of riparian habitat considered City "wetlands". Permanent loss of 0.027-acre of wetlands to impervious surface are anticipated as a result of installation of the Class IV bike lane improvements to the existing Class I bike lane on the southeastern portion of the project of which 0.012-acre is within the MHPA. Temporary impacts from construction and grading of the 2-foot recovery slope with result in 0.271-acre temporary loss of wetlands of which 0.090-acre occur within the MHPA.	To offset impacts to Tier II habitat, mitigation is required at a 1:1 ratio and will be implemented through monetary compensation into the City of San Diego's Habitat Acquisition Fund as detailed in Section 5: BIO-1. To offset impacts to riparian habitat considered "wetlands" as defined by the Land Development Code. A total of 0.028-acre of riparian woodland would be mitigated at a ratio of 3:1 for a total of 0.084-acre of enhancement and rehabilitation. Impacts to 0.270-impacts to riparian scrub would be mitigated at a 2:1 ratio for a total of 0.540-acre of enhancement and rehabilitation at the City's Stadium Mitigation site as detailed in Section 5: BIO-1
Restoration:		
Restoration or revegetation undertaken in the MHPA shall be performed in a manner acceptable to the City. Where covered species status identifies the need for reintroduction and/or increasing the population, the covered species will be included in restoration/revegetation plans, as appropriate. Restoration or revegetation proposals will be required to prepare a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring and success criteria, and remediation and contingency measures. Wetland restoration/revegetation proposals are subject to permit authorization by federal and state agencies.	Revegetation is required for areas temporarily impacted by the project.	Temporary impacts from construction will be revegetated through a 25-month revegetation plan and further summarized in Section 5: AMM-8 and will provide an overall increase in native habitat because large nonnative dominated areas (i.e. *Carpobrotus edulis* or Other Ice Plants Semi-Natural Stands and *Brassica (nigra)* and Other Mustards Semi-Natural Stands) will be revegetated with native upland species.
Public Access, Trails, and Recreation: Not Applicable to the current project.		
Litter/Trash and Materials Storage:		
Priority 1:		
1. Remove litter and trash on a regular basis. Post signage to prevent and report littering in trail and road access areas. Provide and maintain trash cans and bins at trail access points.	Construction-related debris may occur on the project site.	The contractor shall ensure that trash is removed by construction-personnel on a regular basis.
2. Impose penalties for littering and dumping. Fines should be sufficient to prevent recurrence and also cover reimbursement of costs to remove and dispose of debris, restore the area if needed, and to pay for enforcement staff time.	Not Applicable.	Not Applicable.
3. Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.	No hazardous construction materials storage would be allowed that could impact the adjacent MHPA (including fuel) and any drainage from the construction site must be clear of such materials.	The contractor shall ensure all areas for staging, storage of equipment and materials, trash, equipment maintenance, and other construction-related activities are within the limits of the existing ROW. In addition the implementation of AMM-1, AMM-2, AMM-3, AMM-4, and AMM-5 will ensure minimization of impacts within and adjacent to the MHPA.

Table 10 Multiple Species Conservation Program General Management Directives		
MHPA General Management Directives Section 1.5.2 of the MSCP Subarea Plan	**Applicability**	**Implementation**
4. Keep wildlife corridor undercrossings free of debris, trash, homeless encampments, and all other obstructions to wildlife movement.	Not Applicable.	Not Applicable.
Priority 2:		
1. Evaluate areas where dumping recurs for the need for barriers. Provide additional monitoring as needed (possibly by local and recreational groups on a "Neighborhood Watch" type program), and/or enforcement.	Not Applicable.	Not Applicable.
Adjacency Management Issues:		
Priority 1:		
1. Enforce, prevent and remove illegal intrusions into the MHPA (e.g., orchards, decks, etc.) on an annual basis, in addition to complaint basis.	Not Applicable.	Not Applicable.
2. Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues.	Not Applicable.	Not Applicable.
3. Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.	A new chain-link fence will be installed at the top of the slope.	The fence will be located immediately adjacent to the cycle track to minimize intrusion into the MHPA. It will also provide a safety barrier by not allowing members of the public on the slope.
Invasive Exotics Control and Removal:		
Priority 1:		
1. Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, and prevention methods, to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.	The contractor shall permanently revegetate all graded, disturbed, or eroded areas that will not be permanently paved or covered by structures.	Plant species within 100 feet of the MHPA shall comply with the Landscape Regulations (LDC142.0400 and per table 142-04F, Revegetation and Irrigation Requirements) and be non-invasive.
2. Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available. If possible, it is recommended that removal begin upstream and/or upwind and move downstream/downwind to control reinvasion. Priorities for removal should be based on invasive species' biology (time of flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell's vireo. Avoid removal activities during the reproductive seasons of sensitive species and avoid/ minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment, and any other potentially harmful or impact-causing methodologies, to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.	Nonnative vegetation will be removed during grading activities.	Plant species within 100 feet of the MHPA shall comply with the Landscape Regulations (LDC142.0400 and per table 142-04F, Revegetation and Irrigation Requirements) and be non-invasive.
Priority 2:		

Table 10 Multiple Species Conservation Program General Management Directives		
MHPA General Management Directives Section 1.5.2 of the MSCP Subarea Plan	**Applicability**	**Implementation**
1. If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal. Utilize trained volunteers to monitor and remove exotic species as part of a neighborhood, community, school, or other organization's activities program (such as Friends of Peñasquitos Preserve has done). If - 55 - done on a volunteer basis, prepare and provide information on methods and timing of removal to staff and the public if requested. For giant reed removal, the Riverside County multi-jurisdictional management effort and experience should be investigated, and relevant techniques used. Similarly, tamarisk removal should use the Nature Conservancy's experience in the Southern California desert regions, while artichoke thistle removal should reference the Nature Conservancy's experience in Irvine. Other relevant knowledge and experience is available from the California Exotic Pest Plant Council and the Friends of Los Peñasquitos Canyon Preserve.	Not Applicable.	Not Applicable.
2. Conduct an assessment of the need for cowbird trapping in each area of the MHPA where cattle, horses, or other animals are kept, as recommended by the habitat management technical committee in coordination with the wildlife agencies.	Not Applicable.	Not Applicable.
3. If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.	In order to construct the cycle track along Gilman Drive approximately 0.14 acre of Eucalyptus dominated community already occurring in the MHPA will be impacted where in some trees will be removed to support the cycle track and some trees may remain in the temporary work area.	During the 25-month maintenance and monitoring period, removal of re-sprouts will be treated to ensure no new eucalyptus will grow within the MHPA.
4. On a case by case basis some limited trapping of non-native predators may be necessary at strategic locations, and where determined feasible to protect ground and shrub-nesting birds, lizards, and other sensitive species from excessive predation. This management directive may be considered a Priority 1 if necessary to meet the conditions for species coverage. If implemented, the program would only be on a temporary basis and where a significant problem has been identified and therefore needed to maintain balance of wildlife in the MHPA. The program would be operated in a humane manner, providing adequate shade and water, and checking all traps twice daily. A domestic animals release component would be incorporated into the program. Provide signage at access points and noticing of adjacent residents to inform people that trapping occurs, and how to retrieve and contain their pets.	Not Applicable.	Not Applicable.
Flood Control: Not Applicable to the current project.”		
MHPA: Multi-Habitat Planning Area; MSCP: Multiple Species Conservation Program.		

4.1.5.1.3 MHPA Land Use Adjacency Guidelines (§1.4.3)

Table 11 MHPA Land Use Adjacency Guidelines Summary

MHPA Adjacency Guidelines Section 1.4.3 of the HSCP Subarea Plan	Applicability	Implementation
Drainage: All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA	The majority of the project occurs within the existing ROW. No new storm drains are proposed for this project. Drainage improvements to existing storm drains are proposed. Currently many if not all of the existing inlets are damaged and not standard per the City's Stormwater Standard Guidelines for structures and have caused erosion along the slopes. Inlet improvements along the median are proposed to improve overall drainage in the area. The medians act as a protective barrier that separates cyclists from vehicular traffic and also acts as hydraulic separation. The existing storm drains subject for improvements drain natural flow from the western edge of Gilman Drive.	Runoff from the cycle drains into the existing roadway and subsequently enter the existing City of San Diego storm water conveyance system. The new cycle track on the eastern end adjacent to the MPHA is designed to be hydraulically separated (i.e. protective median) to prevent co-mingling of flows from the bikeway and flows from traffic lanes before entering the stormwater conveyance system. While the Project will increase impervious surface from installation of a Class IV bike track, there is an increase in hydrology, but no increase in toxins because there is no increase in vehicular traffic. Bringing the current storm drains up to standard will prevent erosion currently onsite even with the increase in hydrology. Discharge from the construction site would be controlled through implementation of Best Management Practices (BMPs). Runoff from the cycle drains into the existing roadway and subsequently enter the existing City of San Diego storm water conveyance system. Additionally, during construction discharge from the construction site would be controlled through implementation of Best Management Practices (BMPs).
Toxics: Land uses, such as recreation and agriculture, that use chemicals or generate byproducts such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA.	The majority of the project occurs within the existing ROW. No new storm drains are proposed for this project. Drainage improvements to existing storm drains are proposed. Currently many if not all of the existing inlets are damaged and not standard per the City's Stormwater Standard Guidelines for structures. Inlet improvements along the median are proposed to improve overall drainage in the area. The medians act as a protective barrier that separates cyclists from vehicular traffic and also acts as hydraulic separation. The existing storm drains subject for improvements drain natural flow from the western edge of Gilman Drive.	Runoff from the cycle drains into the existing roadway and subsequently enter the existing City of San Diego storm water conveyance system. The new cycle track on the eastern end adjacent to the MPHA is designed to be hydraulically separated (i.e. protective median) to prevent co-mingling of flows from the bikeway and flows from traffic lanes before entering the stormwater conveyance system. While the Project will increase impervious surface from installation of a Class IV bike track, there is an increase in hydrology, but no increase in toxins because there is no increase in vehicular traffic. There are no toxins associated with bike lines. Discharge from the construction site would be controlled through implementation of Best Management Practices (BMPs). Runoff from the cycle drains into the existing roadway and subsequently enter the existing City of San Diego storm water conveyance system. Additionally, during construction discharge from the construction site would be controlled through implementation of Best Management Practices (BMPs).
Lighting: Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other	Permanent street lighting is proposed along the cycle track.	Lighting is necessary as a safety measure and will be designed with shield to shine only along the cycle track and away from the MHPA. All lighting will be directed and shielded to avoid direct lighting into MHPA areas. During operation of the proposed

methods to protect the MHPA and sensitive species from night lighting.		project, lighting will conform with the requirements of San Diego Street Design Manual (City of San Diego 2017), as well as the San Diego Municipal Code §142.0740, which states that, "Outdoor lighting used for security purposes or to illuminate walkways, roadways, equipment yards, and parking lots may remain lighted after 11:00 p.m. only when low-pressure sodium outdoor lighting fixtures are used." Additionally, "On properties [that] are adjacent to or contain sensitive biological resources, any exterior lighting shall be limited to low-level lights and shields to minimize the amount of light entering any identified sensitive biological resource areas." Lighting impacts are expected to be less than significant with the incorporation of these measures. No nighttime construction that would require temporary lighting is proposed for the project. As such, no significant impacts to sensitive wildlife from artificial lighting from project construction is anticipated.
Noise: Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.	The proposed project does not widen Gilman Drive for vehicular traffic. The proposed project proposes to develop the existing Class I bike line along the east side of Gilman Drive adjacent to the MHPA into a Class IV cycle track that is separated from traffic. The existing bike lane is a popular thoroughfare and the development is not anticipating increasing bike traffic, but safely separating the bike line from vehicular traffic. CAGN occurs within the areas in and adjacent to the MHPA within the proposed project study area.	The proposed project does not include a sidewalk along the east side of Gilman Drive adjacent to the MHPA; and as a result, there is no cumulative increase in noise from an increase in pedestrian traffic. The only noise anticipated from implementation of the proposed project would be construction related and temporary. In addition, implementation of AMM-2 and AMM-3 will minimize impacts to CAGN. Implementation of BIO-4 will offset indirect impacts due to construction related noise.
Barriers: New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.	A 2-foot recovery slope will be constructed adjacent to the cycle track. A new chain-link fence will be installed at the top of the slope.	The fence will be located immediately adjacent to the cycle track to minimize intrusion into the MHPA. It will also provide a safety barrier by not allowing members of the public on the slope.
Invasives: No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.	Much of the existing ROW and temporary impact areas are dominated by invasive exotic species.	Following construction revegetation of the temporary impact areas will include native species and weed abatement for a 25-month maintenance period. Ornamental landscaping is not proposed as a component of the proposed project.
Brush Management: New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA.	The project would not require brush management as it would not include any flammable structures requiring fire protection.	Not Applicable
Grading/Land Development: Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.	Grading is required in order to build a new cycle track along Gilman Drive. A 2-foot recovery slope will be constructed and will be revegetated with native species.	A 2-foot recovery slope will be constructed and will be revegetated with native species.
MHPA: Multi-Habitat Planning Area; HSCP: Health and Safety Contingency Plan; MM: Mitigation Measure; DSD: Development Services Department; MMC: Mitigation Monitoring Coordination.		

4.1.6 Criterion 6 (Edge Effects)

Would the proposed project introduce land use within an area adjacent to the MHPA that would result in adverse edge effects?

4.1.6.1 Criterion 6 Impact Analysis

The portion of the MHPA that lies within the BSA is an isolated earthen channel that is surrounded on all sides by residential housing and I-5 and has over time been subject to edge effects by current and past development of the area. The portion of the project that occurs within lands designated as MHPA under the MSCP (Figure 2) is considered designated ROW intended for maintenance and improvements of which the proposed Class IV bike lane improvements would occur within those undeveloped areas. There is no additional new land use that has not been designated as existing use and wouldn't result in additional edge effects that hasn't already occurred.

4.1.7 Criterion 7 (Local Policies and Ordinances)

Would the proposed project conflict with any local policies or ordinances protecting biological resources?

4.1.7.1 Criterion 7 Impact Analysis

The majority of the Project occurs outside of the MHPA in urban areas within the existing ROW and natural areas. Urban areas, in addition to natural areas, within the project have a potential to support nests for common avian species. Protection of avian species is required under the Migratory Bird Treaty Act and/or the California Fish and Game Code (§3503) under which it is unlawful to "take, possess, or needlessly destroy" avian nests or eggs. Any minor vegetation removal or trimming of vegetation that occurs during the nesting season (January 15 to September 15) that has the potential to support active nests would require standard nest protection measures, as outlined in AMM-1 The nesting season timeframe includes nesting for raptor species which starts as on January 15. Project activities within the MHPA are restricted to outside of the nesting season as outlined in AMM-1 and AMM-4.

4.1.8 Criterion 8 (Invasive Species)

Would the proposed project result in an introduction of invasive species of plants into a natural open space area?

4.1.8.1 Criterion 8 Impact Analysis

As discussed in Section 4.1.6.1.2 Table 10 (Criterion 6 Impact Analysis) and Section 4.1.6.1.3 Table 11 (Criterion 6 Impact Analysis), much of the existing ROW and temporary impact areas are dominated by invasive exotic species. Following construction revegetation of the temporary impact areas will include native species and weed abatement for a 25-month maintenance period. Ornamental landscaping is not proposed as a component of the proposed project.

4.2 INDIRECT IMPACTS

The Project would entail extensive earthwork construction activities with the potential to generate dust and noise. Project contractors will be required to implement standard dust control measures, and with these in place, and given the temporary nature of dust-generating activities, construction dust is not expected to result in significant impacts on biological resources and is specific measures are described in Section 5.1 of the Mitigation and Monitoring Program.

Contractors will also be required to implement reasonable and feasible noise control measures. Depending on construction timing, preconstruction surveys nesting avian species will also be implemented (See Section 5 AMM-6).

The Project will require a SWPPP, which will include measures to control erosion during and following construction. With the SWPPP in place, significant impacts associated with accelerated erosion of disturbed ground are not expected (See Section 5, AMM-5).

The project will not result in an increase in traffic and therefore would not result in a long-term increase in noise.

Lighting is proposed to be installed as part of this project, but will be shielded and directed away from sensitive habitats.

Implementation of the Avoidance and Minimization Measures described below would prevent any significant indirect impacts to sensitive species or habitat.

4.3 CUMULATIVE IMPACTS

Cumulative impacts include both the potential regional (long-term, additive) effects of a project and the ways a project, in combination with other projects and conditions in a region, may affect an ecosystem or one of its components beyond the Project limits and on a regional scale. Because the Project would be consistent with the City of San Diego's MSCP, a regional conservation plan, there would be no cumulatively significant biological impacts. There are no current or future projects within the vicinity that would contribute additional impacts. In addition, the Project intends to implement improvements to already existing features. The Project does not add new traffic lanes or new drainages. A sidewalk is proposed on the west side of the project in order to further minimize impacts to the natural areas.

5 AVOIDANCE AND MINIMIZATION MEASURES

The following measures will be included on the project design plans and incorporated into the contract specifications to comply with the City's MSCP requirements and ESL regulations. Implementation of these regulations will ensure impacts to biological resources are avoided and minimized.

5.1 PRE-CONSTRUCTION AVOIDANCE AND MINIMIZATION MEASURE

5.1.1 AMM-1

- Biologist Verification -The owner/permittee shall provide a letter to the City's Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist) as defined in the City of San Diego's Biological Guidelines (2012), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.
- Preconstruction Meeting - The Qualified Biologist shall attend the preconstruction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.
- Biological Documents - The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP), Environmentally Sensitive Lands Ordinance (ESL), project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state or federal requirements.
- BCME -The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME) which includes the biological documents in C above. In addition, include: restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.
- Avian Protection Requirements – To avoid direct impacts to any species identified as a listed, candidate, sensitive, or special status species in the MSCP, removal of habitat thsupports active

nests in the proposed area of disturbance should occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the preconstruction survey to City DSD for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan in conformance with the City's Biology Guidelines (i.e. appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's MMC Section and Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

- Education –Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

5.1.2 AMM-2

- Resource Delineation - Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.

5.2 CONSTRUCTION AVOIDANCE AND MINIMIZATION MEASURES

5.2.1 AMM-3

- **Monitoring**- All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as

needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be e-mailed to MMC on the 1st day of monitoring, the 1st week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

- **Subsequent Resource Identification -** The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna onsite (e.g., flag plant specimens for avoidance during access, etc). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

5.2.2 Avoidance and Minimization Measures for MSCP-Covered Species

5.2.2.1 AMM-4

Impacts to CAGN will be mitigated per conditions of coverage for the CAGN, as outlined in Appendix A of the City's MSCP Subarea Plan. Although the Department is a cooperating government partner with the NCCP Act, it is not a signatory or participant in the NCCP Program. However, the FHWA issued a guidance memo, dated December 3, 2004 (FHWA 2004), recommending that the mitigation standards and protocols defined in approved plans be applied to those projects within areas covered by the plans. Therefore, if all of the measures, as described below, required by the City's MSCP Subarea Plan that are conditional for coverage of the species are implemented, then the Department can coordinate with USFWS to determine if adoption of the MSCP measures are adequate:

- Vegetation removal of suitable CAGN habitat within the MHPA will be prohibited during the breeding season (March 1 – August 15).
- During the CAGN breeding season, no construction activities shall occur within 300 feet of occupied habitat, where construction activities would result in noise levels exceeding 60 dB(A) Leq (hourly noise equivalent of 60 A-weighted decibels [dB(A)] or less) or ambient noise levels at the edge of occupied CAGN habitat. Prior to the commencement of any construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a USFWS Approved Biologist;
- Or during the CAGN breeding season, at least two weeks prior to the commencement of construction activities and under the direction of a Qualified Acoustician, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(A) Leq or ambient noise levels. Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) Leq or to the ambient noise level if it already exceeds 60 dB(A) Leq. If not, other

measures shall be implemented in consultation with the Qualified Acoustician and/or Biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) Leq or to the ambient noise level if it already exceeds 60 dB(A) Leq. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

5.2.2.2 AMM-5

Temporary impacts to disturbed habitat are subject to the City's Landscape Standards (City of San Diego 2016). A revegetation plan will be prepared according to the City's Landscape Standards. The plan will include a 120-day Plant Establishment Period and a 25-month maintenance period per the Landscape Standards (City of San Diego 2016).

5.3 POST-CONSTRUCTION AVOIDANCE AND MINIMIZATION MEASURES

5.3.1 AMM-6

In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, State CEQA, and other applicable local, state and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

6 MITIGATION AND MONITORING PROGRAM

6.1 COMPENSATORY MITIGATION AND MITIGATION MEASURES FOR MSCP-COVERED SPECIES

The following mitigation measures are required for significant impacts to biological resources and will reduce impacts to less than significant:

6.1.1 Compensatory Mitigation

The following are measures to mitigate for direct impacts to sensitive upland habitat and City wetlands.

BIO-1: All direct permanent and temporary impacts to sensitive upland habitats and City wetlands will be mitigated consistent with City Guidelines.

- Direct impacts (permanent and temporary) to a total of 2.022 acres of Tier II sensitive upland habitats [*Artemisia californica – Salvia mellifera* Association, (Disturbed *Artemisia californica – Salvia mellifera* Association), *Salvia mellifera – Eriogonum fasiculatum*, (Disturbed *Salvia mellifera – Eriogonum fasiculatum* Association), and *Toxicodendron diversilobum* Shrubland Alliance] will be mitigated at a 1:1 ratio for a total of 2.022 acres and mitigated offsite with the purchase of credits from the City of San Diego's Habitat Acquisition Fund (HAF) per San Diego Municipal Code § 143.0141(a)(1)(C). HAF monies are used to purchase lands within the MHPA and are collected by the City's Facilities Financing Division. The City currently charges $35,000 per acre purchased plus a 10% administration fee; however, note that the fee is revised periodically and may be different at time of payment than the amount noted herein.
- Direct impacts (permanent and temporary) to sensitive riparian habitats including 0.028-acre of *Quercus agrifolia – Salix lasiolepis* Association (southern riparian woodland) and 0.270-acre of *Salix lasiolepis* Association (southern riparian scrub) will be mitigated at a 3:1 ratio for riparian woodland and a 2:1 ratio for riparian scrub for a total of 0.624-acre. Mitigation will occur offsite through allocation of credits at the City's Stadium Mitigation Site. Permanent loss of riparian habitat under the jurisdiction of CDFW will be offset through allocation of rehabilitation credits. Temporary loss of riparian habitat under the jurisdiction of CDFW will be offset through the allocation of enhancement credits.

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APPENDIX A: REGULATORY LANGUAGE.

Regulatory Setting

3.3.1.1 Regulatory Framework

Compliance with all state and federal laws, including MBTA and CDGC is anticipated. Various federal, state, and/or local regulations or policies apply to biological resources on or adjacent to the project parcels and are summarized below.

a. Federal Regulations

The Rivers and Harbors Act of 1899 and the Clean Water Act (CWA) regulate project activities within non-marine navigable waters and/or waters of the U.S. The discharge of any pollutant from a point source into navigable waters is illegal unless a permit under the CWA's provisions is acquired. Permitting for projects that include both permanent and temporary dredging and filling in wetlands and waters of the U.S. is overseen by the ACOE under Section 404 of the CWA. Projects can be permitted on an individual basis or be covered by one of several approved nationwide or regional general permits.

The federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered 'take' under the ESA. Section 9(a) of the ESA defines 'take' as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." The ESA is administered by the USFWS.

The Migratory Bird Treaty Act (16 United States Code 703 et seq.), or MBTA, is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 Code of Federal Regulations (CFR) 10.13. The regulatory definition of "migratory bird" is broad, and includes any mutation or hybrid of a listed species and any part, egg, or nest of such birds (50 CFR 10.12). The MBTA, which is enforced by USFWS, makes it unlawful "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird, or attempt such actions, except as permitted by regulation. The take, possession, import, export, transport, sale, purchase, barter, or offering of these activities is prohibited, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11). Pursuant to U.S. Department of the Interior Memorandum M-37050, the federal Migratory Bird Treaty Act is no longer interpreted to cover incidental take of migratory birds (U.S. Department of the Interior 2017). Therefore, impacts that are incidental to implementation of an otherwise lawful project would not be considered significant.

b. State Regulations

The California Environmental Quality Act (CEQA) requires an environmental review for projects with potentially adverse impacts on the environment. Adverse environmental impacts are typically mitigated in accordance with state laws and regulations.

The California ESA is similar to the federal ESA in that it provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction.

Section 3503 of the California Fish and Game Code states that 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," and Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized (State of California 1991).

The California Fish and Game Code (Sections 1600 through 1603) regulates project activities within wetlands and riparian habitats. The CDFW can issue a Streambed Alteration Agreement for projects affecting riparian and wetland habitats.

Project activities that fill or dredge within wetland waters of the U.S. and waters of the U.S. as well as wetland waters of the state and waters of the state, including isolated waters such as vernal pools and other waters showing lack of connectivity to a Traditional Navigable Waters, require a Water Quality Certification by the California Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Section 13000 et seq. of the California Water Code under the Porter-Cologne Water Quality Control Act.

c. Local Regulations

One of the primary objectives of the City's MSCP Subarea Plan is to identify and maintain a preserve system, which allows for animals and plants to exist at both the local and regional levels. The MSCP has identified large blocks of native habitat having the ability to support a diversity of plant and animal life known as "core biological resource areas." "Linkages" between these core areas provide for wildlife movement. These lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. Input from responsible agencies and other interested participants resulted in creation of the City's MHPA. The MHPA is the area within which the permanent MSCP preserve would be assembled and managed for its biological resources.

The City's Biology Guidelines (2012) were formulated to aid in the implementation and interpretation of the ESL Regulations, San Diego Land Development Code (LDC), Chapter 14, Division 1, Section 143.0101. Section III of the Guidelines (Biological Impact Analysis and Mitigation Procedures) also serves as standards for the determination of impacts and mitigation under CEQA. The ESL defines sensitive biological resources as those lands included within the MHPA as identified in the City's MSCP Subarea Plan (City of San Diego1997), and other lands outside of the MHPA that contain wetlands; vegetation communities classifiable as Tier I (rare uplands), II (uncommon uplands), IIIA (common uplands) or IIIB (common uplands); habitat for rare, endangered, or threatened species; or narrow endemic species.

The City of San Diego Vernal Pool Habitat Conservation Plan (VPHCP; City of San Diego 2017) provides a regulatory framework to protect, enhance, and restore vernal pool resources in specific areas within the City's jurisdiction, while improving and streamlining the

environmental permitting process for impacts to threatened and endangered species associated with vernal pools. The VPHCP is a conservation plan for vernal pools and seven threatened and endangered species that do not have federal coverage under the City's MSCP Subarea Plan, including five plant and two crustacean species. The VPHCP expands the City's existing MHPA established in the MSCP Subarea Plan to conserve additional lands with vernal pools that are occupied with the vernal pool covered species. Implementation of the VPHCP occurs through permanent protection of existing City-owned land for the conservation of vernal pools, conservation of private lands through the development entitlement process, the permanent management and monitoring of these lands, and annual reporting to the Wildlife Agencies that accounts for all take authorized, conservation achieved, and compliance and effectiveness monitoring. While the City Biology Guidelines generally require the presence of a vernal pool indicator plant species for a depression to be considered a "vernal pool," the VPHCP applies to human-made seasonally flooded depressions if they contain one or more VPHCP covered plant or wildlife species (City of San Diego 2017).

3.3.1.2 Sensitivity Criteria

Sensitive vegetation communities are vegetation assemblages, associations, or subassociations that have cumulative losses throughout the region, have relatively limited distribution, support or potentially support sensitive species, have particular value to other wildlife, or have a combination of these characteristics. Typically, sensitive vegetation communities are considered sensitive whether or not they have been disturbed. Sensitive vegetation communities are regulated by various local, state, and federal resource agencies. For purposes of this report, sensitive vegetation communities include all wetland communities and upland communities identified as Tier I, II, IIIA, or IIIB by the City (2012).

In accordance with the ESL Regulations, lands within the MHPA and habitat for sensitive species will also be considered sensitive biological resources.

For purposes of this report and in accordance with the City Guidelines for Conducting Biology Surveys (City of San Diego 2002), plant and wildlife species will be considered sensitive if they are: (1) listed by state or federal agencies as rare, threatened, or endangered or are proposed for listing; (2) designated by the City as a narrow endemic species (City of San Diego 1997, 2012); (3) covered species under the MSCP or VPHCP; (4) given a California Rare Plant Rank (CRPR) 1B (considered endangered throughout its range), 2 (considered endangered in California but more common elsewhere), 3 (more information about the plant's distribution and rarity needed), or 4 (plants of limited distribution) in the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (2017); (5) considered rare, endangered, or threatened by CDFW (2017b–e); or (6) identified by another recognized conservation or scientific group as being depleted, potentially depleted, declining, rare, critical, endemic, endangered, or threatened.

3.3.2 Sensitive Vegetation Communities

Pursuant to the City's Biology Guidelines, five sensitive vegetation communities occur within the project parcels. Mule fat scrub is considered a wetland habitat (i.e., riparian scrub). Maritime succulent scrub and disturbed maritime succulent scrub are considered Tier 1 (rare uplands) habitats, and Diegan coastal sage scrub and disturbed Diegan coastal sage scrub are considered Tier II (uncommon uplands) habitats.

APPENDIX B: BIOLOGICAL RESOURCES MAP

Coastal Rail Trail-Gilman Drive Segment

APPENDIX B: BIOLOGICAL RESOURCES MAP

Legend

- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study

Vegetation Comunities

- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Eucalyptus Semi-Natural Stand
- Urban/Developed

4/9/2020

0 40 80 160 240 320 Feet

Coastal Rail Trail-Gilman Drive Segment

APPENDIX B: BIOLOGICAL RESOURCES MAP

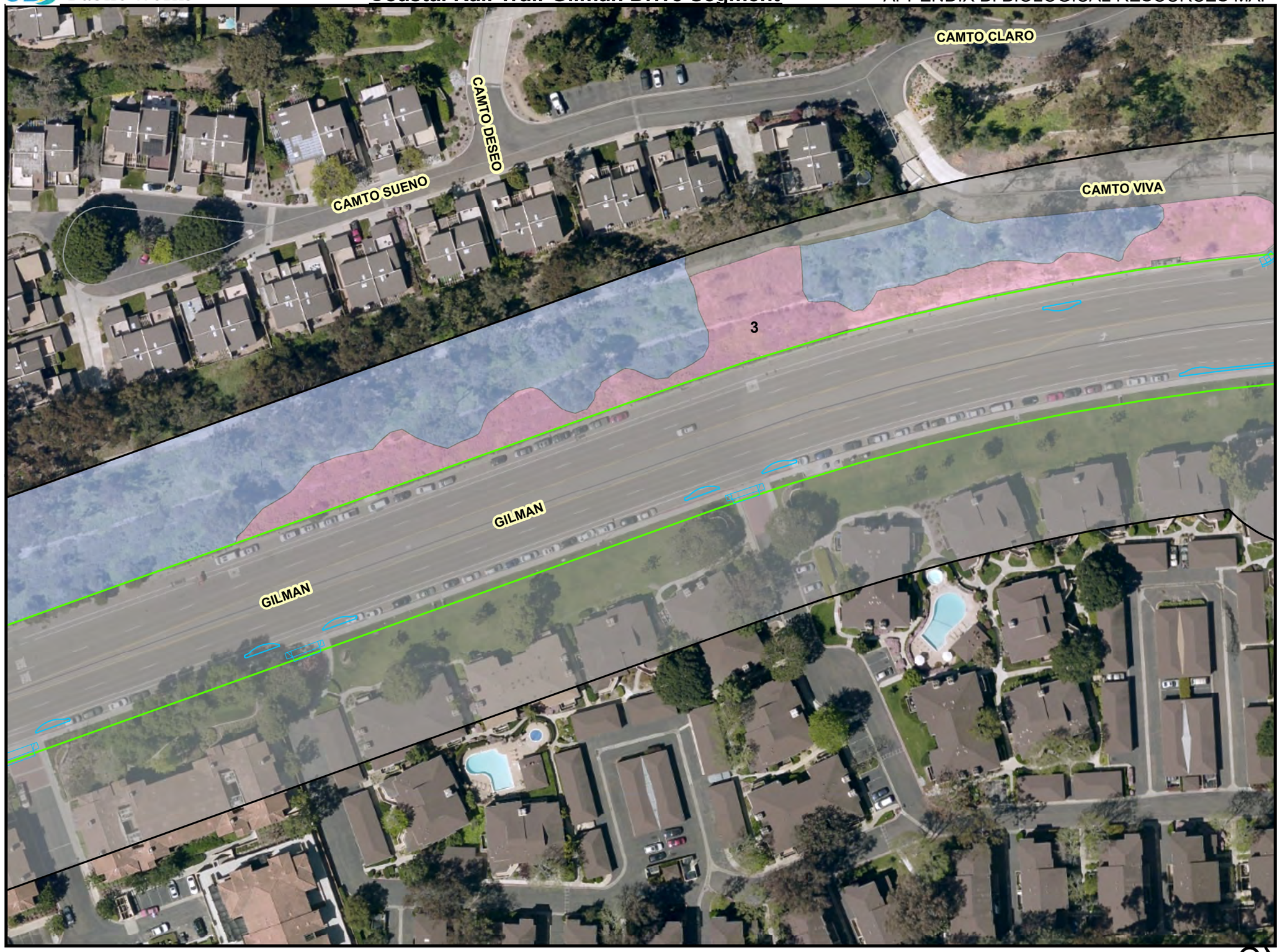
Legend

- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study

Vegetation Communities

- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Eucalyptus Semi-Natural Stand
- Urban/Developed

0 40 80 160 240 320 Feet



Legend

- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study

Vegetation Comunities

- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Eucalyptus Semi-Natural Stand
- Urban/Developed

0 50 100 200 300 400 Feet

Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study
- Torrey Pine, 10

Vegetation Communities

- Artemisia californica-Salvia mellifera Association
- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Disturbed Artemisia californica-Salvia mellifera Association
- Eucalyptus Semi-Natural Stand
- Rhus integrifolia
- Urban/Developed

4/9/2020

0 50 100 200 300 400 Feet

5

GILMAN

GILMAN

VILLA LA JOLLA

VILLA LA JOLLA

PRIVATE

PRIVATE

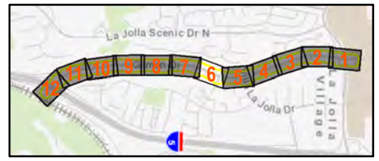
Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study

Vegetation Comunities

- Artemisia californica-Salvia mellifera Association
- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Disturbed Artemisia californica-Salvia mellifera Association
- Eucalyptus Semi-Natural Stand
- Rhus integrifolia
- Urban/Developed

0 40 80 160 240 320 Feet



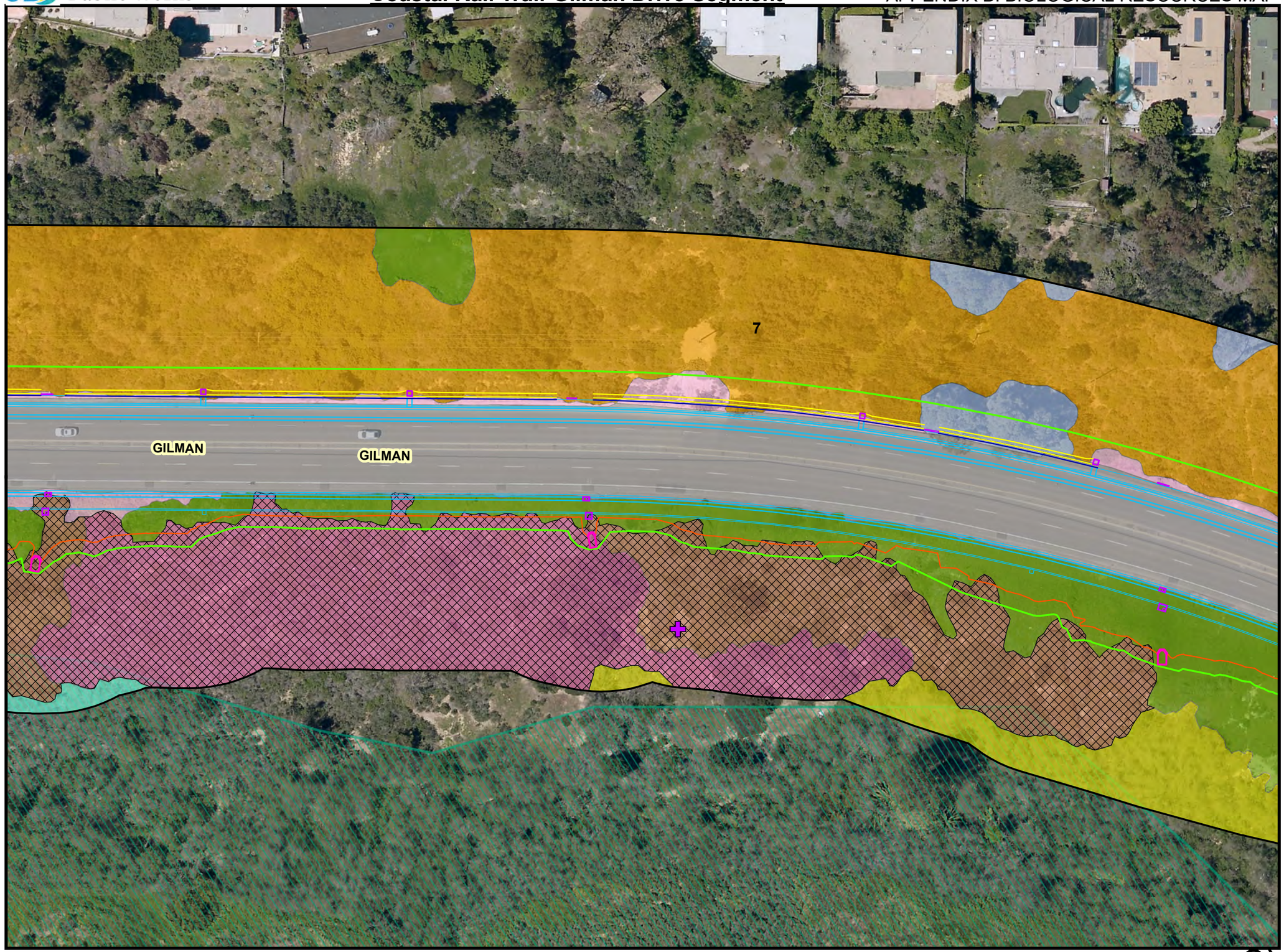
Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Outfalls]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study
- Minimum Extent of Occupied CAGN Habitat

Vegetation Comunities

- Artemisia californica-Salvia mellifera Association
- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Carpobrotus edulis or Other Iceplant Semi-Natural Herbaceous Stands
- Disturbed
- Disturbed Salvia mellifera-Eriogonum fasiculatum Association
- Eucalyptus Semi-Natural Stand
- Salix lasiolepis
- Salvia mellifera-Eriogonum fasiculatum Association
- Urban/Developed
- MHPA

0 50 100 200 300 400 Feet



Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Outfalls]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study
- Torrey Pine, 2
- Minimum Extent of Occupied CAGN Habitat

Vegetation Comunities

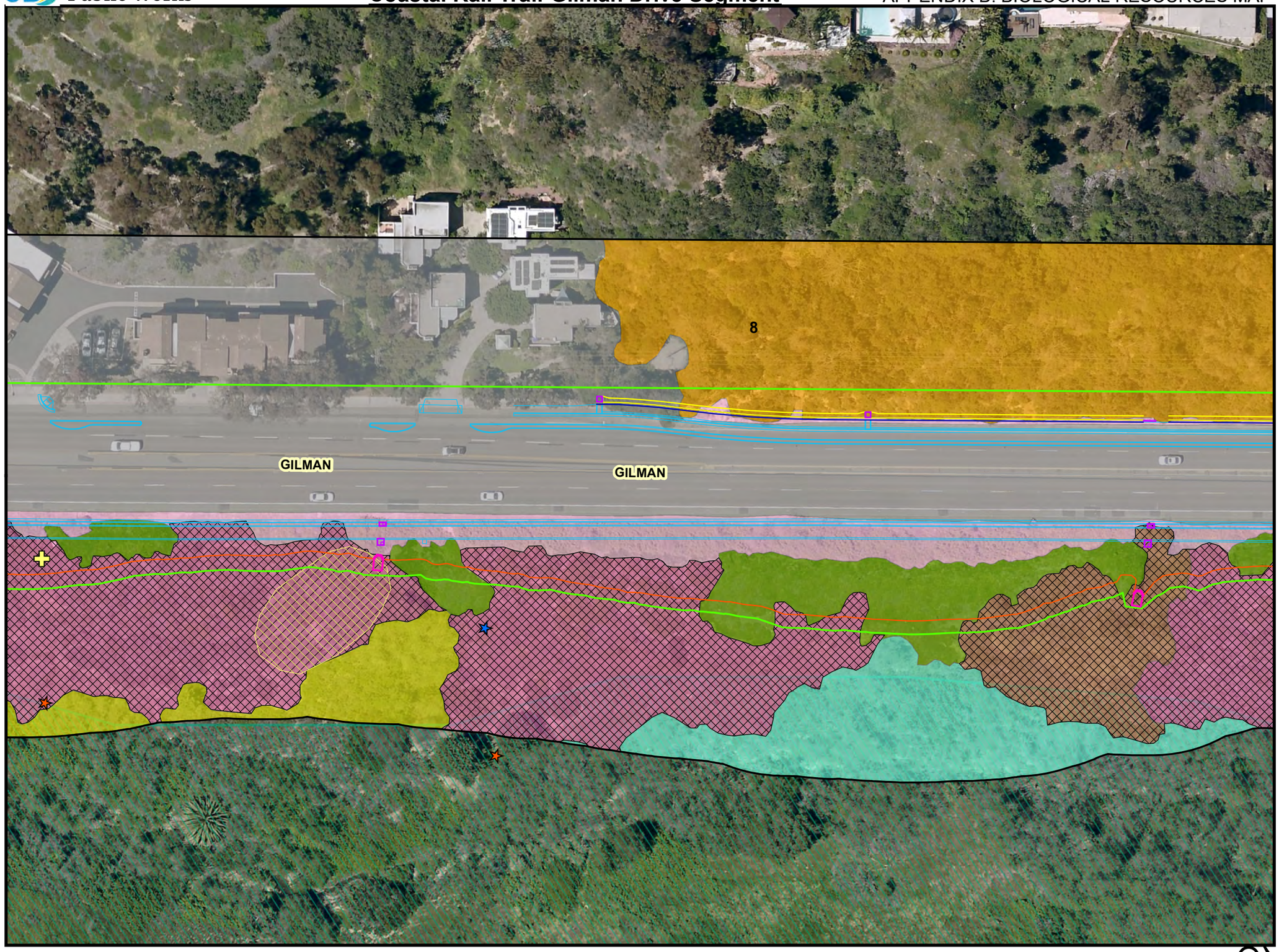
- Artemisia californica-Salvia mellifera Association
- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Carpobrotus edulis or Other Iceplant Semi-Natural Herbaceous Stands
- Disturbed Salvia mellifera-Eriogonum fasiculatum Association
- Eucalyptus Semi-Natural Stand
- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis
- Salvia mellifera-Eriogonum fasiculatum Association
- Urban/Developed
- MHPA

0 40 80 160 240 320 Feet

Public Works

Coastal Rail Trail-Gilman Drive Segment

APPENDIX B: BIOLOGICAL RESOURCES MAP



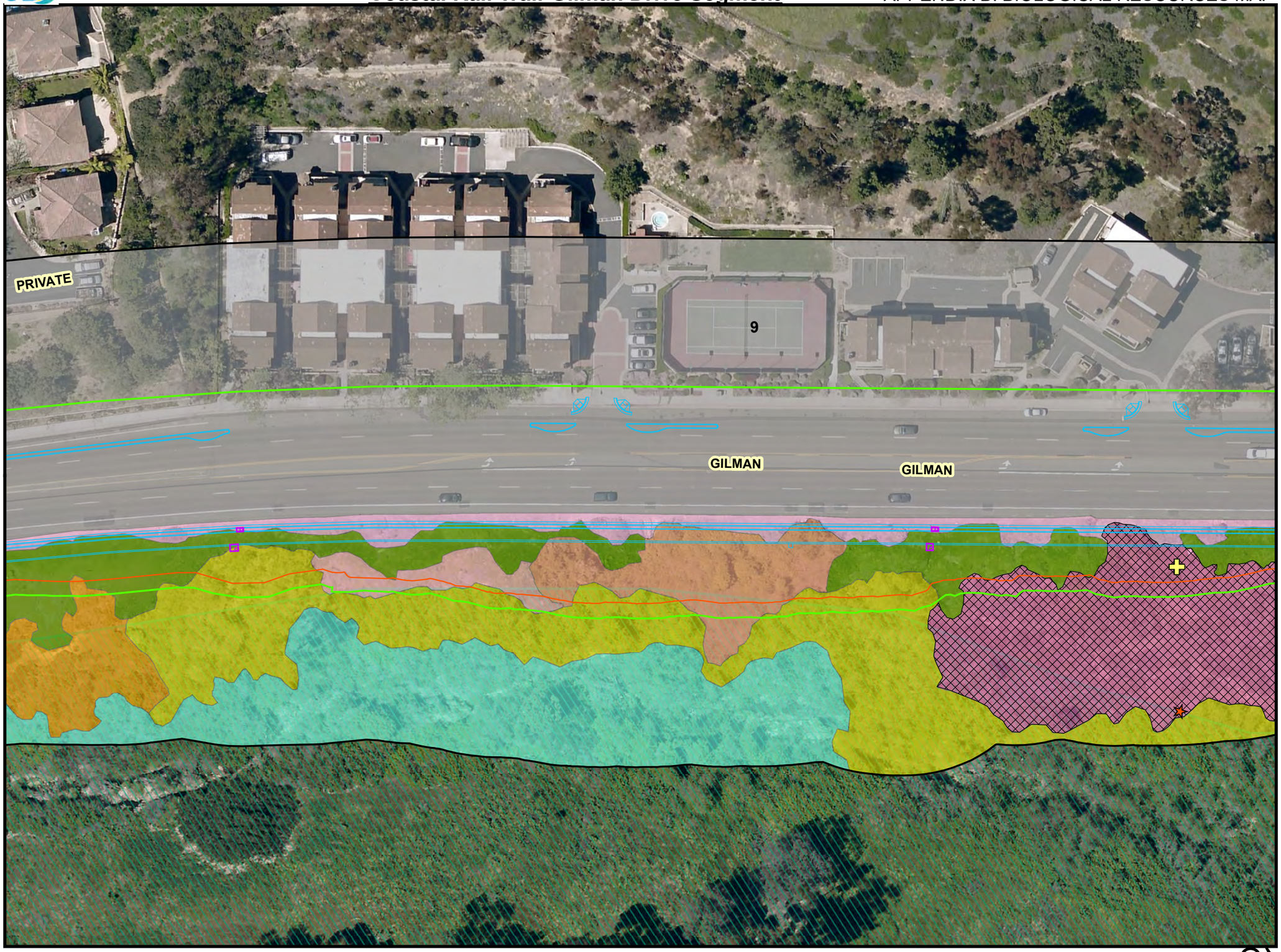
Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Outfalls]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area
- Palmer's Sagebrush, 10
- Palmer's Sagebrush, 40
- CAGN, pair
- CAGN, Family
- Minimum Extent of Occupied CAGN Habitat

Vegetation Comunities

- Artemisia californica-Salvia mellifera Association
- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Carpobrotus edulis or Other Iceplant Semi-Natural Herbaceous Stands
- Disturbed Salvia mellifera-Eriogonum fasiculatum Association
- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- Salvia mellifera-Eriogonum fasiculatum Association
- Urban/Developed Areas
- MHPA

0 40 80 160 240 320 Feet



Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study
- Palmer's Sagebrush, 10
- CAGN, pair
- Minimum Extent of Occupied CAGN Habitat

Vegetation Comunities

- Artemisia californica-Salvia mellifera Association
- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Carpobrotus edulis or Other Iceplant Semi-Natural Herbaceous Stands
- Disturbed Artemisia californica-Salvia mellifera Association
- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis
- Salvia mellifera-Eriogonum fasiculatum Association
- Toxicodendron diversilobum Shrubland Alliance
- Urban/Developed
- MHPA

0 40 80 160 240 320 Feet

PRIVATE

10

GILMAN

GILMAN

Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Outfalls]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study
- Brown-headed Cowbird, Individual(s)
- Yellow Warbler

Vegetation Comunities

- Artemisia californica-Salvia mellifera Association
- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Carpobrotus edulis or Other Iceplant Semi-Natural Herbaceous Stands
- Disturbed Artemisia californica-Salvia mellifera Association
- Eucalyptus Semi-Natural Stand
- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis
- Urban/Developed
- MHPA

PRIVATE

11

GILMAN

GILMAN

I-5 SB ON

I-5 SB OFF

CAMTO GIANNA

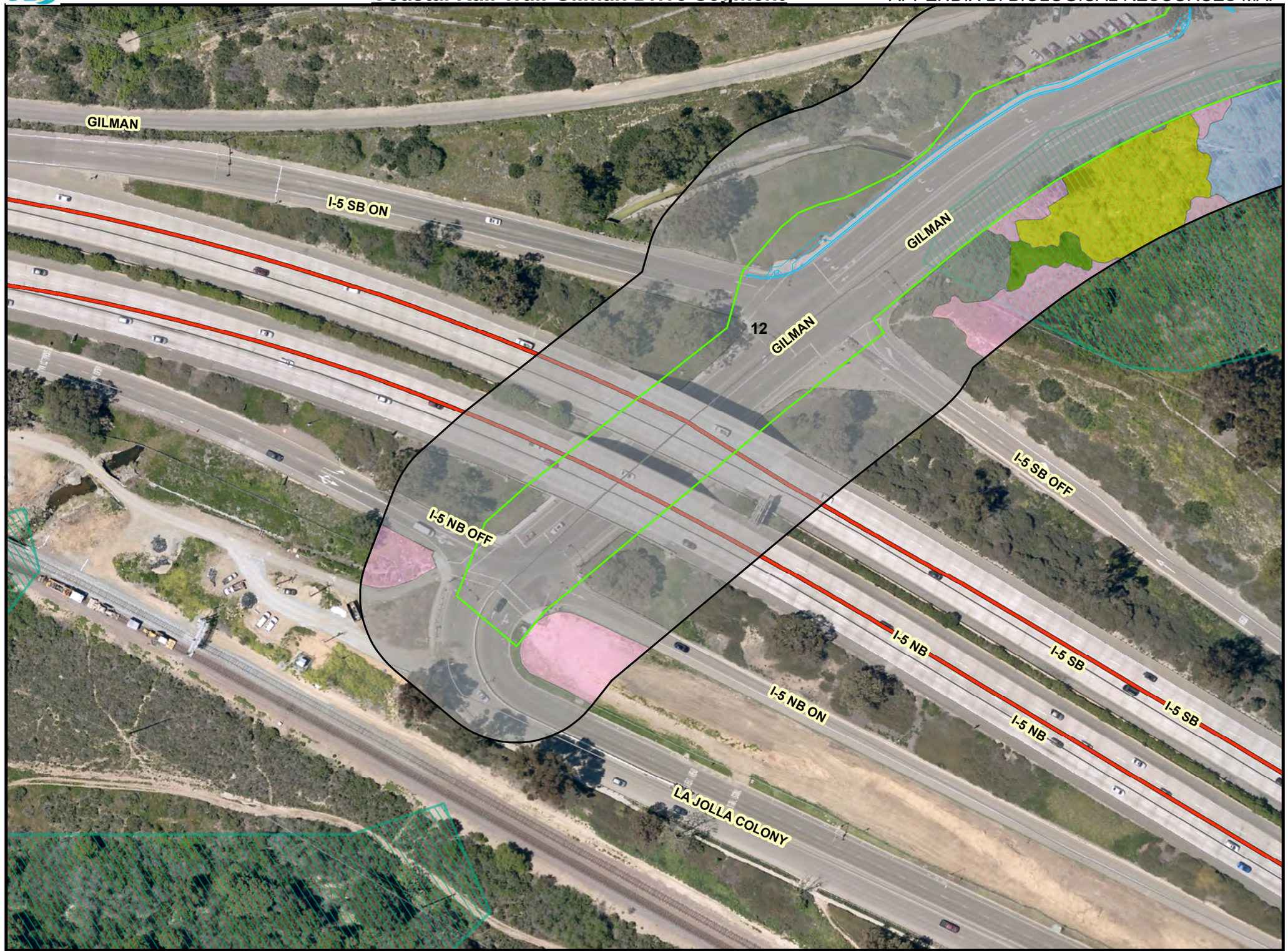
Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study
- Brown-headed Cowbird, Individual(s)

Vegetation Comunities

- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Carpobrotus edulis or Other Iceplant Semi-Natural Herbaceous Stands
- Disturbed Artemisia californica-Salvia mellifera Association
- Eucalyptus Semi-Natural Stand
- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis
- Urban/Developed
- MHPA

0 50 100 200 300 400 Feet



Legend

- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study

Vegetation Comunities

- Brassica (nigra) and Other Mustards Semi-Natural Stands
- Carpobrotus edulis or Other Iceplant Semi-Natural Herbaceous Stands
- Eucalyptus Semi-Natural Stand
- Salix lasiolepis
- Urban/Developed
- MHPA

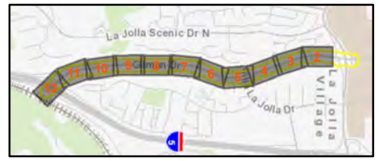
0 62.5 125 250 375 500 Feet

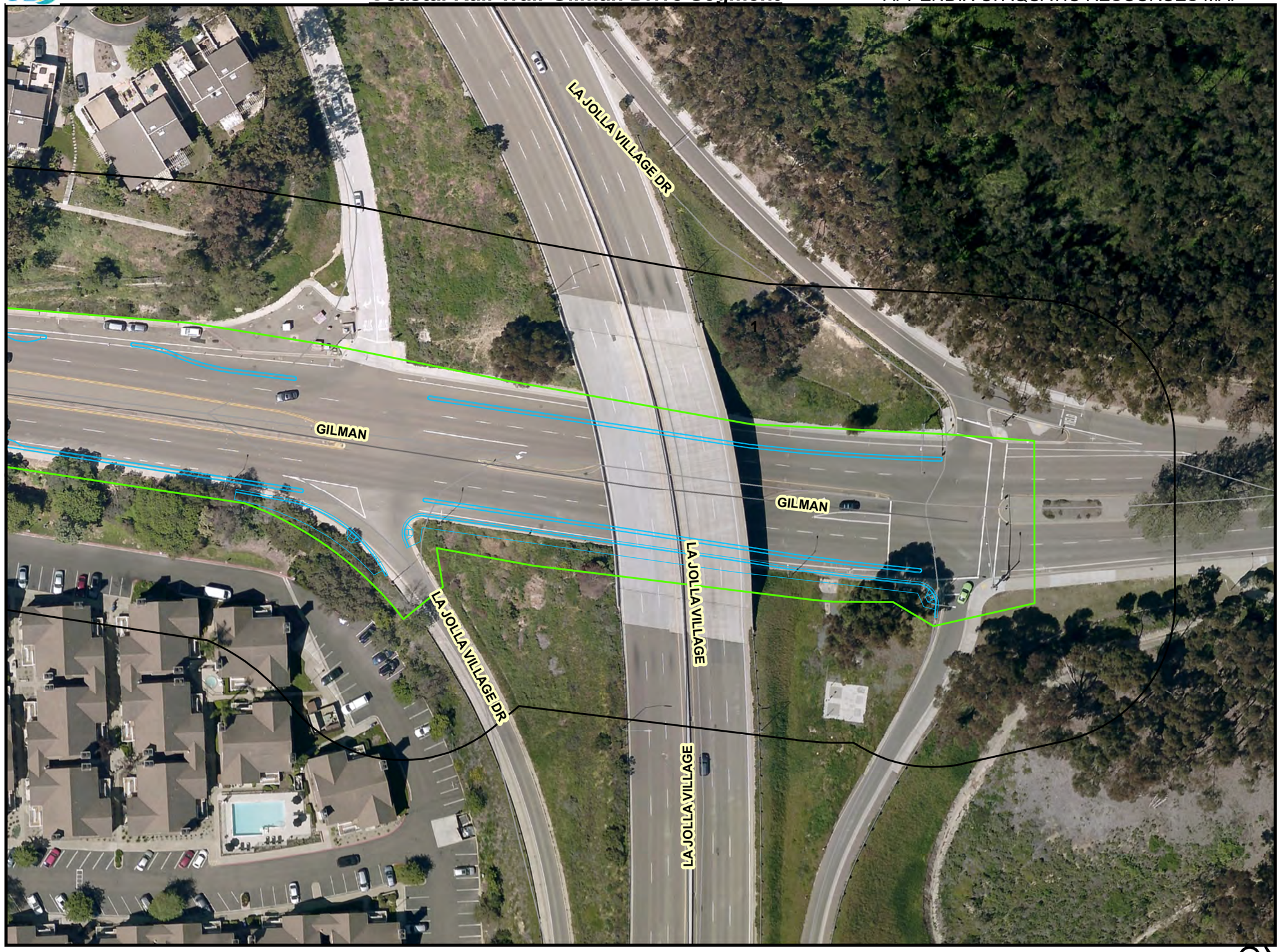
APPENDIX C: AQUATIC RESOURCES MAP

Public Works

Coastal Rail Trail-Gilman Drive Segment

APPENDIX C: AQUATIC RESOURCES MAP





Legend

- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area

0 40 80 160 240 320 Feet

Legend

- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area

0 40 80 160 240 320 Feet

Legend

- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area

0 50 100 200 300 400 Feet

Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area

0 50 100 200 300 400 Feet

Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area

0 40 80 160 240 320 Feet

Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Outfalls]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area
- Photo Points
- City Designated "Wetlands"

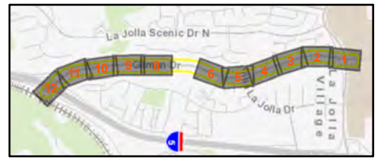
Wetland Waters of the United States [USACE, RWQCB, CDFW]

- Riparian
- MHPA

Public Works

Coastal Rail Trail-Gilman Drive Segment

APPENDIX C: AQUATIC RESOURCES MAP



GILMAN

GILMAN

Legend

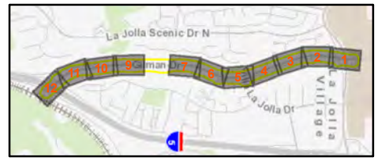
- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Outfalls]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area
- City Designated "Wetlands"

Wetland Waters of the United States [USACE, RWQCB, CDFW]

- Riparian
- MHPA

4/9/2020

0 40 80 160 240 320 Feet



GILMAN

GILMAN

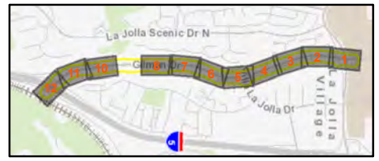
Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Outfalls]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- V-Ditch Permanent Impacts
- Retaining Walls Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area
- City Designated "Wetlands"
- Non-Wetland Waters of the United States [USACE, RWQCB, CDFW]

Wetland Waters of the United States [USACE, RWQCB, CDFW]

- Riparian
- MHPA

0 40 80 160 240 320 Feet



PRIVATE

9

GILMAN

GILMAN

2

3

5

Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area
- Photo Points
- City Designated "Wetlands"
- Non-Wetland Waters of the United States [USACE, RWQCB, CDFW]

Wetland Waters of the United States [USACE, RWQCB, CDFW]

- Riparian
- MHPA

4/9/2020

0 40 80 160 240 320 Feet

PRIVATE

10'

GILMAN

GILMAN

31

22

9

10

11

1

12

13

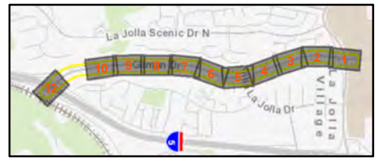
Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Outfalls]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area
- Photo Points
- City Designated "Wetlands"
- Non-Wetland Waters of the United States [USACE, RWQCB, CDFW]

Wetland Waters of the United States [USACE, RWQCB, CDFW]

- Riparian
- MHPA

0 40 80 160 240 320 Feet



PRIVATE
GILMAN
I-5 SB ON
I-5 SB OFF
CAMTO GIANNA
11
S1
S2
S3
S4
S5
S6
S7
S8
6
7
8
9
22
23
24
25
26
27
28
29
30
31

Legend

- Drainage Improvements [Inlets]-Permanent Impacts
- Class IV Cycle Track Improvements Permanent Impacts
- 2-Foot Recovery Slope Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area
- Soil Pits Data Points
- Photo Points
- City Designated "Wetlands"
- Non-Wetland Waters of the United States [USACE, RWQCB, CDFW]

Wetland Waters of the United States [USACE, RWQCB, CDFW]

- Riparian
- Wetland Waters of the United States
- MHPA

0 50 100 200 300 400 Feet

Coastal Rail Trail-Gilman Drive Segment

APPENDIX C: AQUATIC RESOURCES MAP

Legend

- Class IV Cycle Track Improvements Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- 100-Foot Biological Study Area
- Soil Pits Data Points
- Photo Points
- City Designated "Wetlands"
- Non-Wetland Waters of the United States [USACE, RWQCB, CDFW]

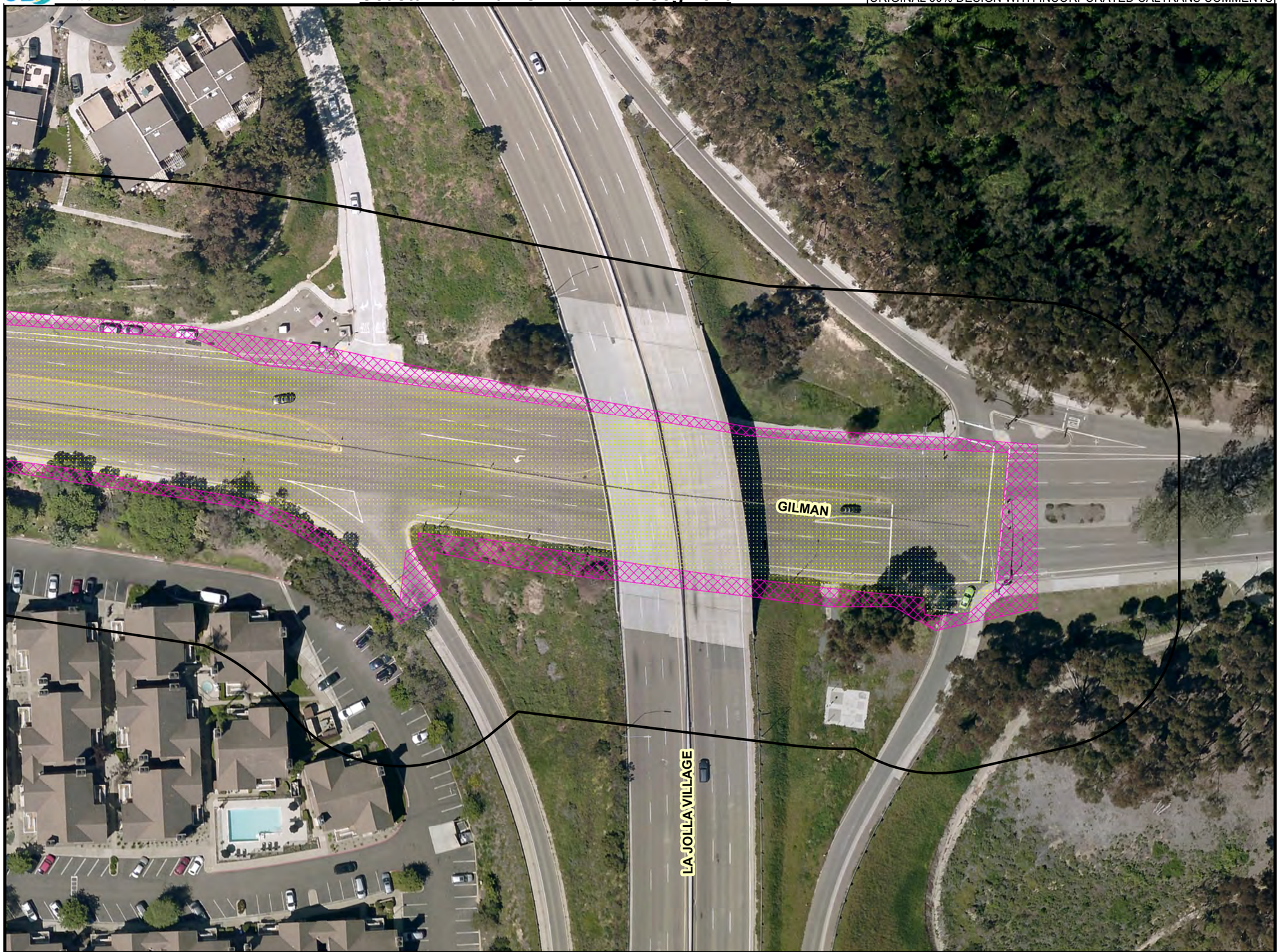
Wetland Waters of the United States [USACE, RWQCB, CDFW]

- Riparian
- Wetland Waters of the United States
- MHPA

4/9/2020

0 62.5 125 250 375 500 Feet

APPENDIX D1: ALTERNATIVES ANALYSIS [OPTION 1-ORIGINAL 60% DESIGN WITH CALTRANS COMMENTS INCORPORATED]



Option 1
- Permanent [Cycle Track]
- Temporary [Caltrans]
- BSA

0 45 90 180 270 360 Feet

4/15/2020

Option 1
- Permanent [Cycle Track]
- Temporary [Caltrans]
- BSA

0 40 80 160 240 320 Feet

4/15/2020

Option 1
- Permanent [Cycle Track]
- Temporary [Caltrans]
- BSA

0 50 100 200 300 400 Feet

4/15/2020

Option 1
- Permanent [Cycle Track]
- Temporary [Caltrans]
- BSA

0 55 110 220 330 440 Feet

4/15/2020

Option 1

- Permanent [Cycle Track]
- Temporary [Caltrans]
- BSA

0 45 90 180 270 360 Feet

N

4/15/2020

Option 1

- Permanent [Cycle Track]
- Temporary [Caltrans]

City "Wetlands" [Riparian Habitat]

- Salix lasiolepis
- BSA
- MHPA

0 55 110 220 330 440 Feet

4/15/2020

GILMAN

7

0 45 90 180 270 360 Feet

Option 1

- Permanent [Cycle Track]
- Temporary [Caltrans]

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- BSA
- MHPA

4/15/2020

GILMAN

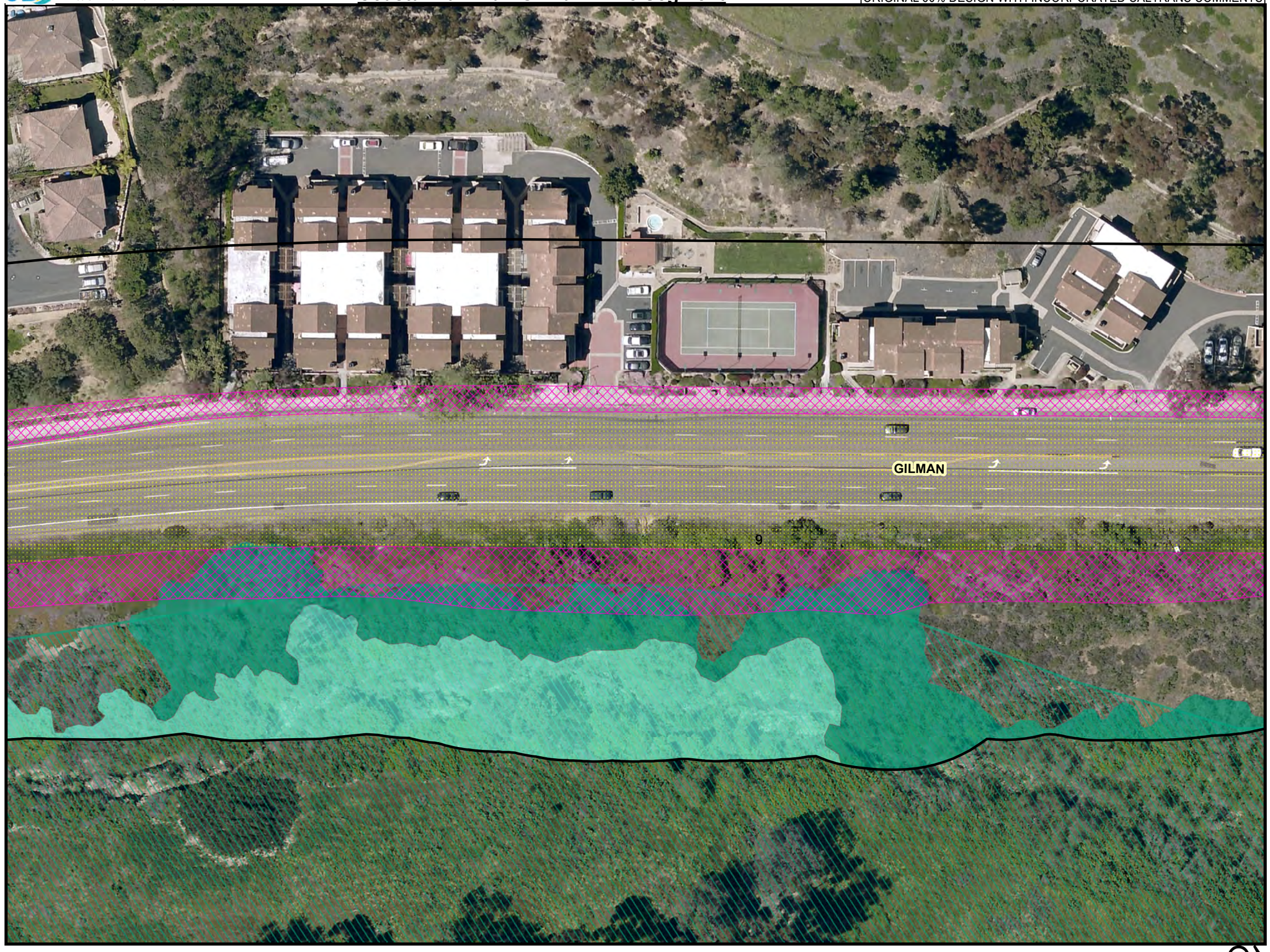
8

Option 1
- Permanent [Cycle Track]
- Temporary [Caltrans]

City "Wetlands" [Riparian Habitat]
- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis
- BSA
- MHPA

0 40 80 160 240 320 Feet

4/15/2020



Option 1

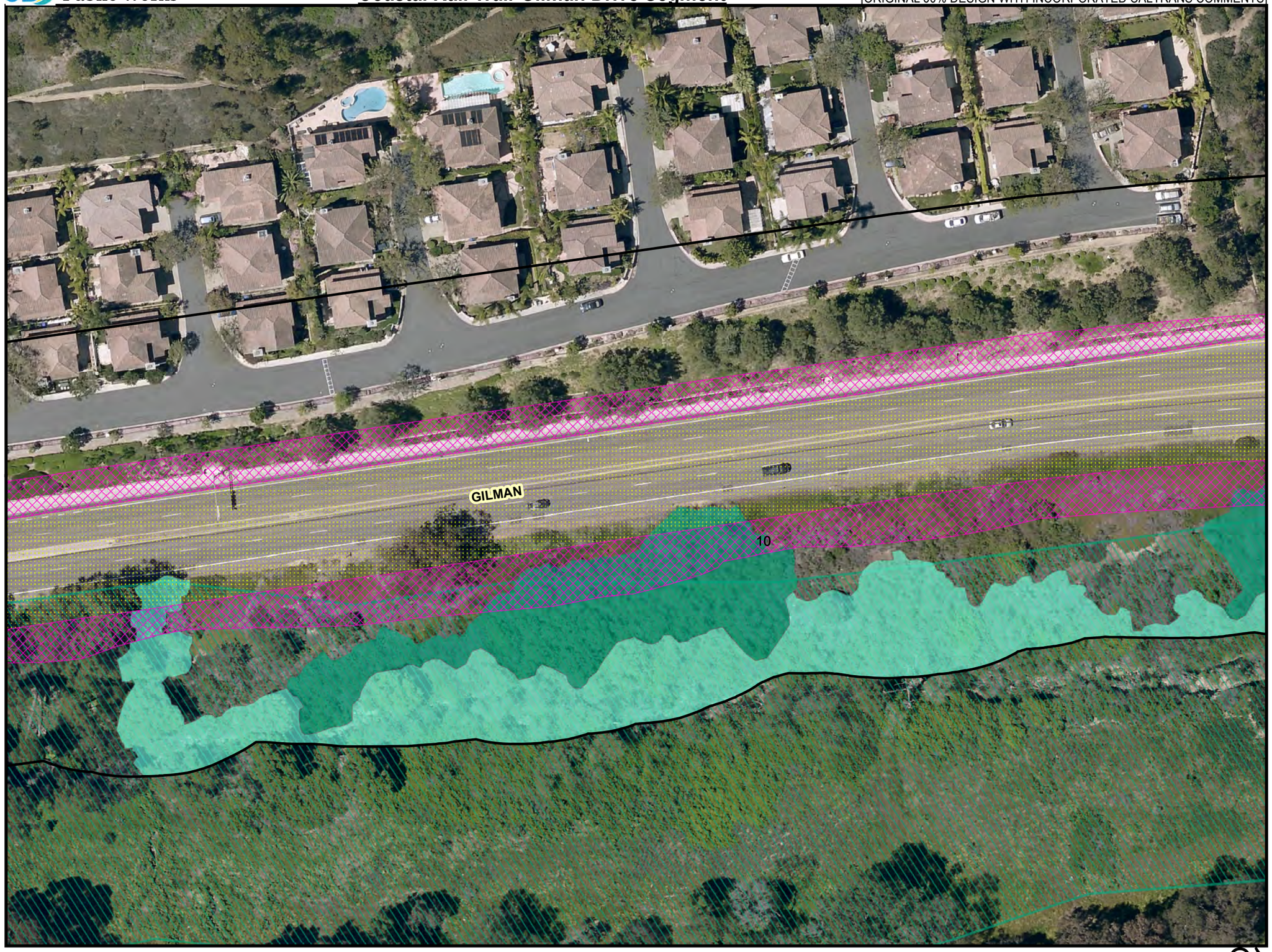
- Permanent [Cycle Track]
- Temporary [Caltrans]

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis
- BSA
- MHPA

0 40 80 160 240 320 Feet

4/15/2020



Option 1

- Permanent [Cycle Track]
- Temporary [Caltrans]

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis
- BSA
- MHPA

0 45 90 180 270 360 Feet

4/15/2020

GILMAN

Option 1
- Permanent [Cycle Track]
- Temporary [Caltrans]

City "Wetlands" [Riparian Habitat]
- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis
- BSA
- MHPA

0 55 110 220 330 440 Feet

N

4/15/2020

GILMAN

I-5 SB

I-5 NB

12

Option 1
- Permanent [Cycle Track]
- Temporary [Caltrans]

City "Wetlands" [Riparian Habitat]
- Salix lasiolepis
- BSA
- MHPA

0 65 130 260 390 520 Feet

4/15/2020

APPENDIX D2: ALTERNATIVES ANALYSIS [OPTION 2-CITY'S PREFERRED OPTION 2-FOOT RECOVERY SLOPE]

Class IV Cycle Track Improvements-Permanent Impacts

Construction Work Area [Grading, Staging]-Temporary Impacts

BSA

0 45 90 180 270 360 Feet

4/13/2020

Class IV Cycle Track Improvements-Permanent Impacts

Construction Work Area [Grading, Staging]-Temporary Impacts

BSA

0 40 80 160 240 320 Feet

4/13/2020

Class IV Cycle Track Improvements-Permanent Impacts

Construction Work Area [Grading, Staging]-Temporary Impacts

BSA

0 50 100 200 300 400 Feet

4/13/2020

- Drainage Improvements [Inlets]-Permanent Impacts
- Class IV Cycle Track Improvements-Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- BSA

0 55 110 220 330 440 Feet

4/13/2020

- Drainage Improvements [Inlets]-Permanent Impacts
- Class IV Cycle Track Improvements-Permanent Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- BSA

0 45 90 180 270 360 Feet

N

4/13/2020

Drainage Improvements [Inlets]-Permanent Impacts
Drainage Improvements [Rip Rap]-Permanent Impacts
Drainage Improvements [Rip Rap]-Permanent Impacts
Class IV Cycle Track Improvements-Permanent Impacts
2-Foot Recovery Slope-Temporary Impacts
Construction Work Area [Grading, Staging]-Temporary Impacts
BSA

City "Wetlands" [Riparian Habitat]

Salix lasiolepis Association
MHPA

0 55 110 220 330 440 Feet

4/13/2020

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- Class IV Cycle Track Improvements-Permanent Impacts
- 2-Foot Recovery Slope-Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- BSA

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- MHPA

0 45 90 180 270 360 Feet

4/13/2020

GILMAN

8

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- Class IV Cycle Track Improvements-Permanent Impacts
- 2-Foot Recovery Slope-Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- BSA

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- MHPA

0 40 80 160 240 320 Feet

4/13/2020

Drainage Improvements [Inlets]-Permanent Impacts
Class IV Cycle Track Improvements-Permanent Impacts
2-Foot Recovery Slope-Temporary Impacts
Construction Work Area [Grading, Staging]-Temporary Impacts
BSA

City "Wetlands" [Riparian Habitat]

Quercus agrifola/Salix lasiolepis Association
Salix lasiolepis Association
MHPA

0 40 80 160 240 320 Feet

4/13/2020

- Drainage Improvements [Inlets]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- Drainage Improvements [Rip Rap]-Permanent Impacts
- Class IV Cycle Track Improvements-Permanent Impacts
- 2-Foot Recovery Slope-Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- BSA

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- MHPA

0 45 90 180 270 360 Feet

4/13/2020

- Drainage Improvements [Inlets]-Permanent Impacts
- Class IV Cycle Track Improvements-Permanent Impacts
- 2-Foot Recovery Slope-Temporary Impacts
- Construction Work Area [Grading, Staging]-Temporary Impacts
- BSA

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- MHPA

0 55 110 220 330 440 Feet

4/13/2020

Class IV Cycle Track Improvements-Permanent Impacts

Construction Work Area [Grading, Staging]-Temporary Impacts

BSA

City "Wetlands" [Riparian Habitat]

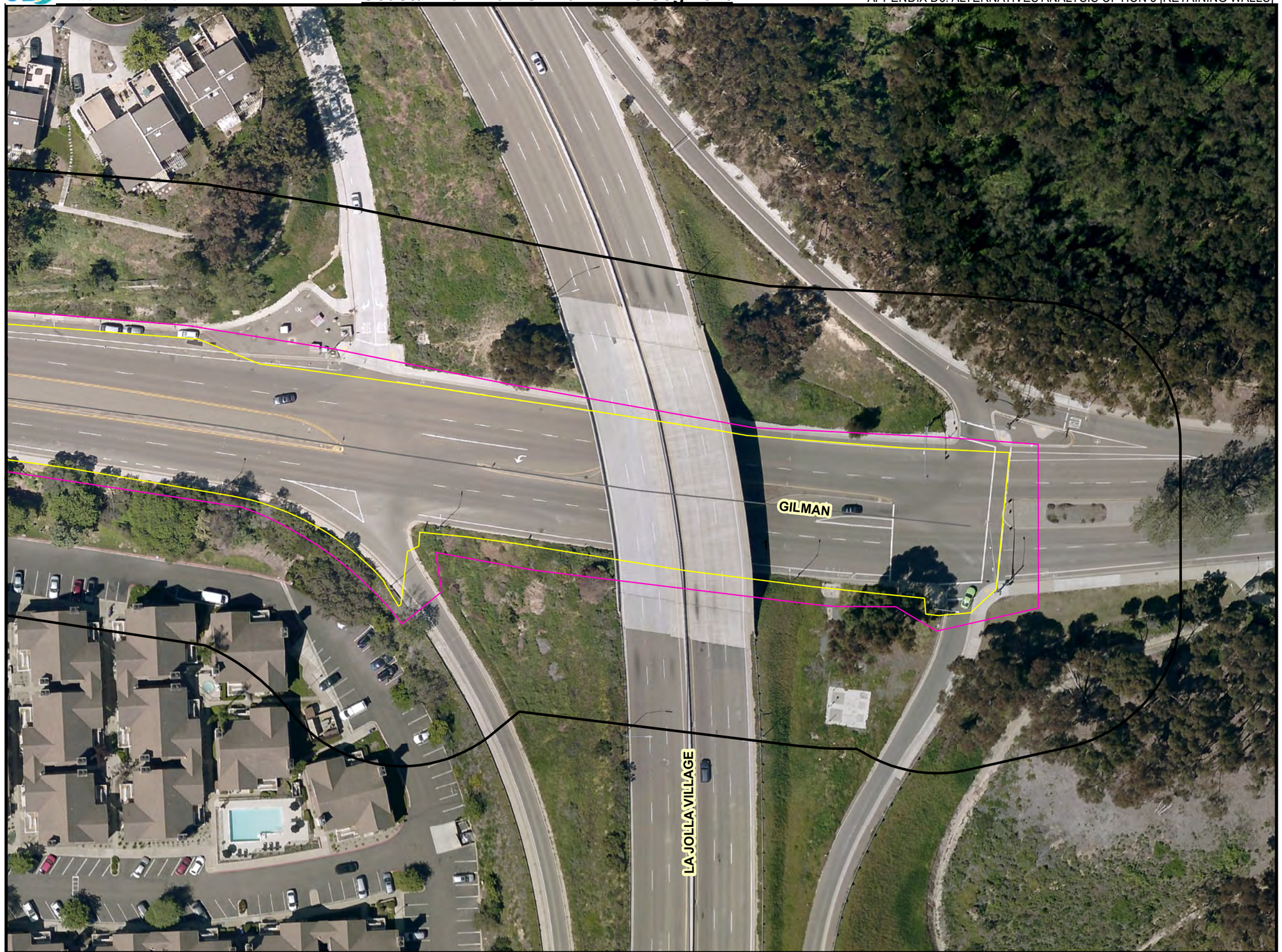
Salix lasiolepis Association

MHPA

0 65 130 260 390 520 Feet

4/13/2020

APPENDIX D3: ALTERNATIVES ANALYSIS [OPTION 3-RETAINING WALLS]



Option 3

- Permanent [Cycle Track]
- Temporary
- BSA

0 45 90 180 270 360 Feet

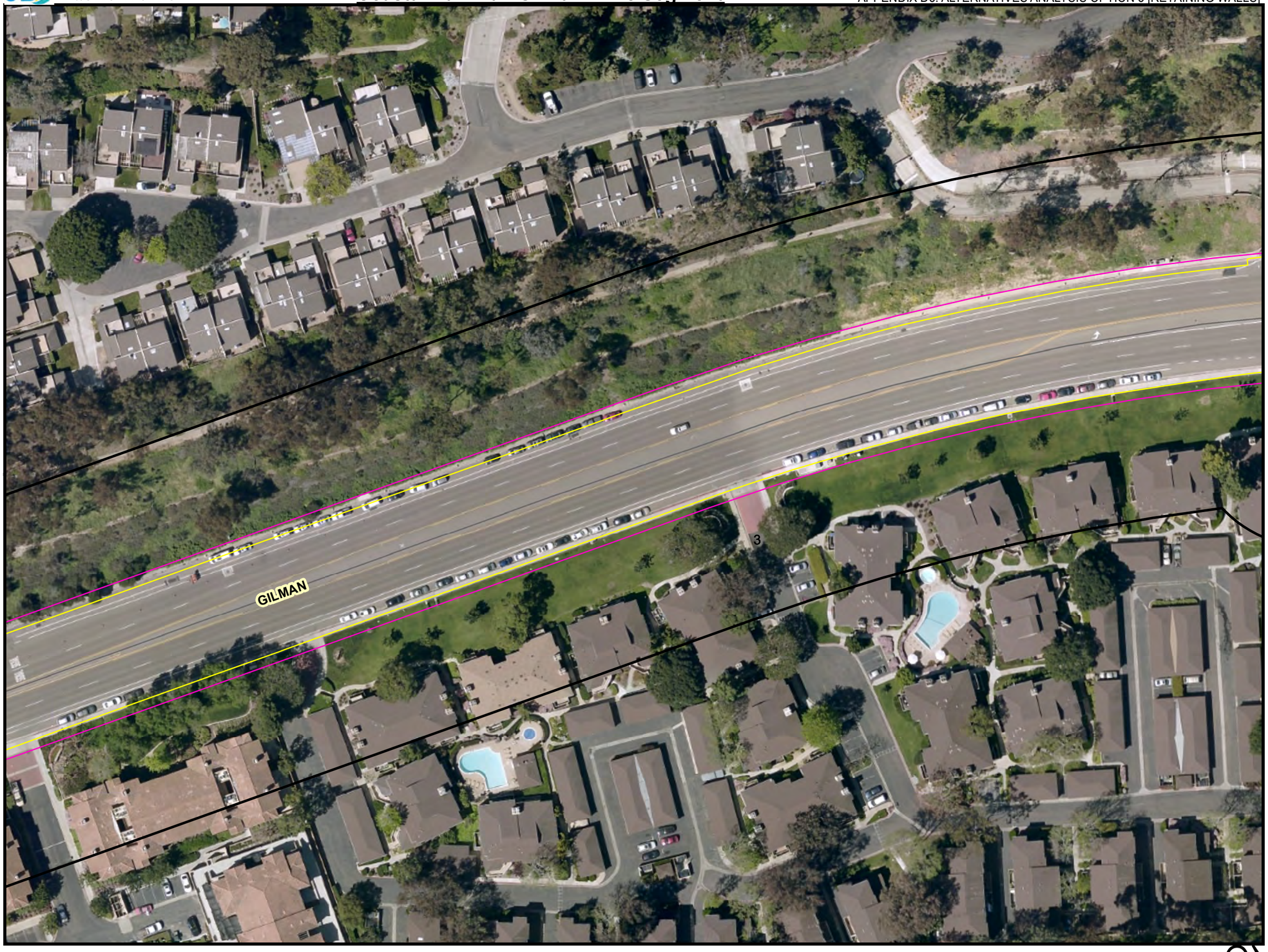
4/9/2020

Option 3

- Permanent [Cycle Track]
- Temporary
- BSA

0 40 80 160 240 320 Feet

4/9/2020



Option 3

- Permanent [Cycle Track]
- Temporary
- BSA

0 50 100 200 300 400 Feet

4/9/2020

Option 3

- Permanent [Cycle Track]
- Temporary
- BSA

0 55 110 220 330 440 Feet

4/9/2020

Option 3

- Permanent [Cycle Track]
- Temporary
- BSA

0 45 90 180 270 360 Feet

4/9/2020

Option 3

- Permanent [Cycle Track]
- Temporary

City "Wetlands" [Riparian Habitat]

- Salix lasiolepis Association
- BSA
- MHPA

0 55 110 220 330 440 Feet

N

4/9/2020

GILMAN

7

Option 3

- Permanent [Cycle Track]
- Temporary

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- BSA
- MHPA

0 45 90 180 270 360 Feet

4/9/2020

GILMAN

8

Option 3

- Permanent [Cycle Track]
- Temporary

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- BSA
- MHPA

0 40 80 160 240 320 Feet

4/9/2020

Option 3

- Permanent [Cycle Track]
- Retaining Wall [Permanent]
- Temporary

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- BSA
- MHPA

0 40 80 160 240 320 Feet

4/9/2020

GILMAN

10

Option 3

- Permanent [Cycle Track]
- Retaining Wall [Permanent]
- Temporary

City "Wetlands" [Riparian Habitat]

- Quercus agrifola/Salix lasiolepis Association
- Salix lasiolepis Association
- BSA
- MHPA

0 45 90 180 270 360 Feet

4/9/2020

Option 3

Permanent [Cycle Track]

Temporary

City "Wetlands" [Riparian Habitat]

Quercus agrifola/Salix lasiolepis Association

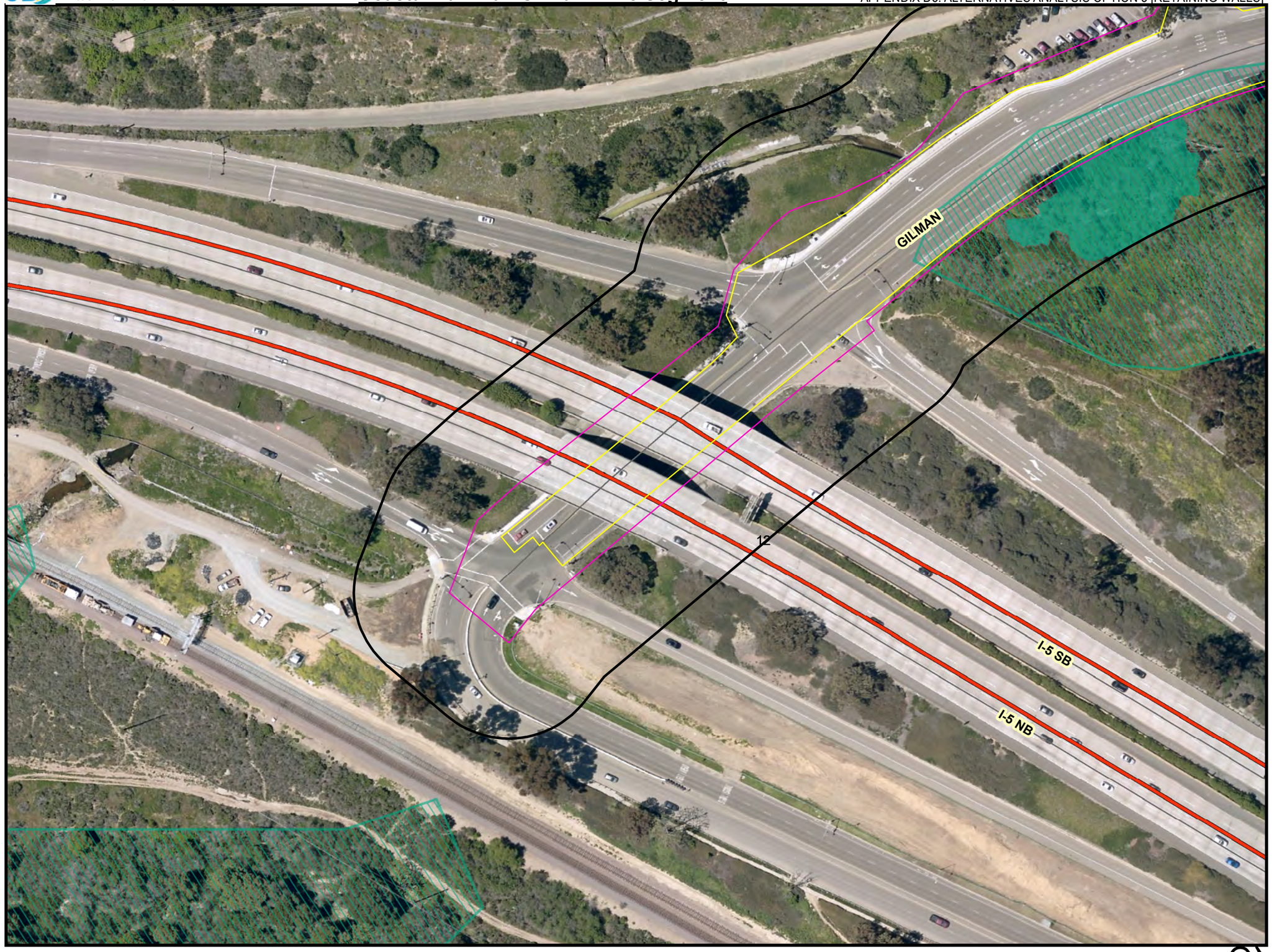
Salix lasiolepis Association

BSA

MHPA

0 55 110 220 330 440 Feet

4/9/2020



Option 3

- Permanent [Cycle Track]
- Temporary

City "Wetlands" [Riparian Habitat]

- Salix lasiolepis Association
- BSA
- MHPA

0 65 130 260 390 520 Feet

4/9/2020

APPENDIX E: SITE PHOTOGRAPS

Site Photographs
COASTAL RAIL TRAIL – GILMAN DRIVE EXTENSION
Jurisdictional Delineation Survey

Photo 1. Photo (facing east) of inaccessible area due to poison oak; federally and state-regulated wetland-waters (southern willow scrub) 50 ft. to east 20 ft. wide estimate.

Photo 2. Photo (facing northeast) of Federally and state-regulated waters channel is 40 ft. to the east, and 15 ft. wide with willows.

Photo 3. Photo (facing east) of channel with federally and state-regulated wetlands and waters 10 ft. east, 20 ft. wide.

Photo 4: Photo (facing east) of state-regulated southern willow scrub.

Photo 5. Photo (facing northwest) of federally and state-regulated southern willow scrub offset from this point by15 ft. to west; channel is 10 ft. wide, with steep banks with poison oak. Channel was not accessible for a soil pit.

Photo 6: Photo (facing west) of state-regulated southern riparian woodland boundary.

Site Photographs
COASTAL RAIL TRAIL – GILMAN DRIVE EXTENSION
Jurisdictional Delineation Survey

	
Photo 7. Photo (facing west) of state-regulated southern willow scrub extending up slope.	Photo 8. Photo (facing northwest) of state-regulated eucalyptus woodland, including poison oak, and willows.
	
Photo 9. Photo (facing south) of state-regulated southern riparian woodland,.	Photo 10: Photo (facing southeast) of state-regulated dense southern willow scrub, bare understory with some poison oak.
	
Photo 11. Photo (facing southeast) of state-regulated southern willow scrub.	Photo 12: Photo (facing southeast) of state-regulated southern willow scrub.

Site Photographs
COASTAL RAIL TRAIL – GILMAN DRIVE EXTENSION
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Photo 13. Photo (facing northeast) of coastal sage scrub species and poison oak.	Photo 14. Photo (facing south) of state-regulated riparian eucalyptus woodland.
	
Photo 15. Photo (facing south) of federally and state-regulated concrete channel with water, freshwater marsh and sediment. 18 ft. wide (Sample Point S1).	Photo 16: Photo (facing south) of upland (Sample Point S2).
	
Photo 17. Photo (facing north) of state regulated wetland (Sample Point S3).	Photo 18: Photo (facing southwest) of federally and state-regulated wetland (Sample Point S4).

Site Photographs
COASTAL RAIL TRAIL – GILMAN DRIVE EXTENSION
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Photo 19. Photo (facing east) of federally and state-regulated wetland waters (Sample Point S5).

Photo 20: Photo (facing west) of state-regulated southern willow scrub (Sample Point S6).

Photo 21. Photo (facing north) of federally and state-regulated southern willow scrub including surface water channel. Total width 18 ft. (Sample Point S7).

Photo 22. Photo (facing east) of federally and state-regulated unvegetated channel, 4 ft. wide, comes from culvert under Gilman down to main channel.

Photo 23. Photo (facing southwest) of federally and state-regulated “other waters”; 20 ft. wide.

Photo 24. Photo (facing northwest) of federally and state-regulated wetland waters and other waters; 20 ft. wide.

Site Photographs
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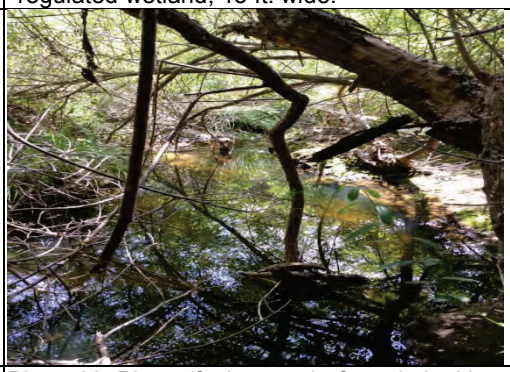
Photo 25. Photo (facing northwest) of 15 ft. width federally and state-regulated wetland.	Photo 26: Photo (facing west) of federally and state-regulated wetland; 15 ft. wide.
	
Photo 27. Photo (facing west) of federally and state-regulated wetland; 20 ft. wide.	Photo 28. Photo (facing east) of creek, looking downstream to federally and state-regulated wetlands, approximately 12 ft. in width.
	
Photo 29. Photo (facing north) of creek, other waters approximately 12 ft. in width.	Photo 30. Photo (facing southeast) of upstream end of federally and state-regulated wetland (southern willow scrub). Approximately 12 ft. wide. Upstream is open water 10 ft. wide.

Site Photographs
COASTAL RAIL TRAIL – GILMAN DRIVE EXTENSION
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Photo 31. Photo (facing east) of federally and state-regulated wetlands (southern willow scrub) 20 ft. wide downstream to Sample Point S7, only 'other waters' upstream from this point.	Photo 32. Photo (facing west) of federally and state-regulated other waters on east side, 25 ft. wide.

APPENDIX F: POTENTIAL FOR SENSITIVE SPECIES TO OCCUR ONSITE

Sensitive Species Present within and Known from the Vicinity of the BSA							
Scientific Name	**Common Name**	**Status[1]**	**City of San Diego Status**	**General Habitat Description (Reiser 2001)**	**Habitat Present/Absent**	**Species Present/Absent**	**Rationale**
Plants							
Acanthomintha ilicifolia	San Diego thorn-mint	FT; SE; G1/S1; 1B.1;	MSCP; NE	Grassy openings in chaparral and Diegan coastal sage scrub with friable or broken clay soils.	Present	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Species has low potential for occurrence. Presence of grasslands and clay soils within BSA but these areas highly disturbed. Low potential for occurrence within the BSA. Known from San Dieguito Valley and Los Peñasquitos Canyon.
Acmispon prostratus	Nuttall's acmispon	G1G2/S1; 1B.1;	MSCP	Coastal dunes, particularly protected back dunes.	Absent	Assumed absent.	Species habitat (coastal dunes) is absent from BSA..
Adolphia californica	California adolphia	G3/S2; 2B.1	--	Intermixed within open Diegan coastal sage scrub generally on clay soils.	Present	Not observed in BSA. Assumed absent.	Low to moderate potential for occurrence on the clay soils within BSA. Soils are disturbed and species would have been observable if present. Known from just east of Torrey Pines Golf Course.
Agave shawii var. *shawii*	Shaw's agave	G2G3T2T3/S1; 2B.1;	MSCP; NE	Coastal sage scrub and maritime succulent scrub, generally on coastal bluffs.	Absent	Not observed in BSA; Assumed absent.	Species habitat (maritime succulent scrub on coastal bluffs) is absent from BSA.
Ambrosia chenopodiifolia	San Diego bur-sage	G2G3/S1; CNPS List 2B.1	--	Arid phase of Diegan coastal sage scrub.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (arid phase coastal sage scrub) is not present within BSA. BSA is well outside species' reported range.
Ambrosia monogyra	Single whorl burrobrush	G5/S2; 2B.2	--	Sandy washes.	Absent	Not observed in BSA; Assumed absent.	Habitat (sandy washes) is absent from the BSA. BSA is outside of species' reported range.
Ambrosia pumila	San Diego ambrosia	FE; G1/S1; 1B.1;	MSCP; NE	Stream beds, seasonally dry drainages and floodplains.	Present	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (floodplain) is present but extremely disturbed. BSA is outside the species' reported range. Low potential for occurrence within the BSA. Known from Montgomery Field and Los Peñasquitos Canyon.
Aphanisma blitoides	aphanisma	G3G4/S2; 1B.2;	MSCP; NE	Coastal bluffs near ocean and beach dunes.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (coastal dunes and bluffs) is absent from BSA.
Arctostaphylos glandulosa subsp. *crassifolia*	Del Mar manzanita	FE; G5T2/S2; 1B.1;	MSCP	Low growing chaparral dominated by chamise, usually on Eocene sandstone derived soils.	Absent	Not observed in BSA. Assumed absent.	Habitat (southern maritime chaparral) is absent from BSA.
Artemisia palmeri	Palmer's sagewort	G3G4/S3?; 4.2	--	Along creeks and drainages near coast, mesic chaparral at inland locations.	Present	Approximately 50 individuals observed within the BSA adjacent to the impact footprint in Diegan coastal sage scrub – Baccharis-dominated habitat and disturbed habitat both within the floodplain of the unnamed drainage adjacent to Gilman Drive.	Other individuals may be present along the floodplains of the two drainage s within the BSA.
Astragalus deanei	Dean's milk-vetch	G1/S1; 1B.1 BLM:S; USFS:S	--	Diegan coastal sage scrub, chaparral and sandy washes.	Present	Not observed in BSA but surveys not conducted at appropriate time. Assumed absent.	Habitat (coastal sage scrub) is present within BSA. BSA is well outside species' reported range. Known from upper Sweetwater River Valley in Bonita. Low potential for occurrence within the BSA.
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE; SE; G2T1/S1; 1B.1;	MSCP; NE	Coastal dunes.	Absent	Assumed absent.	Species habitat (coastal dunes) is absent from BSA.
Atriplex coulteri	Coulter's saltbush	G3/S1S2; 1B.2	--	Coastal bluffs.	Absent	Not observed in BSA but surveys not conducted at appropriate time. Assumed absent.	Habitat (coastal bluffs and open sites on alkaline and clay soils) is not present within the BSA (clay soils present but highly disturbed).
Atriplex pacifica	south coast saltscale	G4/S2; 1B.2	--	Coastal bluffs.	Absent	Not observed in BSA but surveys not conducted at appropriate time. Assumed absent.	Habitat (coastal bluffs and open sites on alkaline and clay soils) is not present within the BSA (clay soils present but highly disturbed).
Baccharis vanessae	Encinitas baccharis	FT; SE; G1/S1 1B.1;	MSCP; NE	Low growing chaparral dominated by chamise.	Absent	Not observed in BSA; Assumed absent	Habitat (open chamise chaparral) is absent from BSA. BSA is outside species' reported range (with exception of some outliers).
Bergerocactus emoryi	golden-spined cereus	G2/S2; 2B.2	--	Maritime succulent scrub on coastal bluffs.	Absent	Not observed in BSA; Assumed absent.	Species habitat (maritime succulent scrub and coastal bluffs) is absent from BSA.
Bloomeria clevelandii	San Diego goldenstar	G2/S2; 1B.1; BLM:S;	MSCP	Grasslands, particularly with clay soils.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (grasslands) is absent from BSA.

Sensitive Species Present within and Known from the Vicinity of the BSA							
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Brodiaea filifolia	thread-leaved brodiaea	FT; SE; G2/S2; !B.1;	MSCP	Vernally moist grasslands and periphery of vernal pools, typically on clay soils.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitats (vernally moist grasslands, vernal pools.) are absent from BSA.
Brodiaea orcuttii	Orcutt's brodiaea	G2/S2; 1B.1; BLM:S; USFS:S;	MSCP	Vernally moist grasslands and periphery of vernal pools.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitats (vernally moist grasslands, vernal pools.) are absent from BSA.
California macrophylla	round-leaved filaree	G3?/S3?: 1B.2; BLM:S	--	Grasslands with friable clay soils.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (grasslands on clay soil) is absent from BSA. BSA is outside species' reported range.
Ceanothus cyaneus	Lakeside ceanothus	G2/S2; 1B.2; BLM:S; USFS:S;	MSCP	Inland mixed chaparral in region from Crest to Lakeside.	Absent	Not observed in BSA; Assumed absent.	Species habitat (inland mixed chaparral) is absent from BSA. BSA is well outside reported range of this species.
Ceanothus otayensis	Otay Mountain ceanothus	G1G2/S1; 1B.2; BLM:S	--	Xeric chamise chaparral on metavolcanic and gabbro soils in San Miguel and Otay Mountains.	Absent	Not observed in BSA; Assumed absent.	Species habitat (metavolcanic chamise chaparral) is absent from BSA.
Ceanothus verrucosus	wart-stemmed ceanothus	G3/S2: 2B.2;	MSCP	Coastal and inland chaparral dominated by chamise and mission manzanita.	Absent	Not observed in BSA.	Habitat (coastal and inland chaparral) is absent from BSA.
Centromadia parryi subsp. *australis*	southern tarplant	G3T2/S2: 1B.1	--	Valley and foothill grasslands, alkaline locales and periphery of salt marsh.	Absent	Not observed in BSA; Assumed absent.	Habitat (mesic grasslands, alkaline localities and periphery of salt marsh) is absent from BSA.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	G5T1T2?S1: 1B.1; BLM:S	--	Open sandy areas along the coast.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (sandy open areas) is not present within the BSA.
Chloropyron maritimum subsp. *maritimum*	salt marsh bird's-beak	FE; SE; G4?T1/S1; 1B.2;	MSCP	Coastal salt marsh.	Absent	Not observed in BSA; Assumed absent.	Species habitat (coastal salt marsh) is absent from BSA. BSA is outside of species' reported range.
Chorizanthe orcuttiana	Orcutt's spineflower	FE; SE; G1/S1; 1B.1	--	Very sandy openings in coastal chaparral.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (sandy openings in coastal chaparral) is absent from BSA.
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	G5T3/S3; 1B.2; BLM:S	--	Clay lenses that are largely devoid of shrubs; occasionally on periphery of vernal pools and montane meadows.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (clay lenses on periphery of vernal pools) is absent from BSA.
Clarkia delicata	delicate clarkia	G3/S3; 1B.2; BLM:S	--	Periphery of oak woodlands and chaparral.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (inland chaparral and cismontane woodlands) is absent from BSA. BSA well outside of species' reported range.
Comarostaphylis diversifolia subsp. diversifolia	summer holly	G3T2/S2: 1B.2; BLM:S	--	Mesic north-facing slopes in southern mixed chaparral.	Absent	Not observed in BSA. Assumed absent.	Habitat (chaparral on north-facing mesic slopes) is absent from BSA.
Corethrogyne filaginifolia var. incana	San Diego sand aster	G4T1Q/S1; 1B.1	--	Sandy openings in coastal mixed chaparral.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (sandy openings in chamise chaparral) is absent from BSA. Low potential for occurrence within BSA. Known from Torrey Pines Ecological Reserve.
Corethrogyne filaginifolia var. linifolia	Del Mar Mesa sand aster	G4T1T2Q/S1S2; 1B.1;	MSCP	Sandy openings in coastal mixed chaparral.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat, (sandy areas in sage scrub and chaparral) is absent from the BSA
Cylindropuntia californica var. *californica*	snake cholla	G3T2/S1; 1B.1;	MSCP; NE	Open Diegan coastal sage scrub on xeric hillsides.	Present	Not observed in BSA; Assumed absent.	Habitat (coastal sage scrub) is present. Low potential for occurrence within BSA. Reported from slopes west of I-5/I-805 interchange.
Deinandra conjugens	Otay tarplant	FT; SE; G1/S1; 1B.1;	MSCP; NE	Fractured clay soils in grasslands or sparsely vegetated Diegan coastal sage scrub.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (grasslands on clay soils) is present within BSA. BSA is well outside the reported range of this species. Low potential for occurrence within BSA. Known occurrences from south San Diego County.
Dicranostegia orcuttiana	Orcutt's bird's-beak	G2G3/S1; 2B.1	--	Seasonally dry drainages and uplands adjacent to riparian habitats.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (seasonally dry drainages) absent from BSA. BSA well outside species' reported range. Low potential for occurrence within BSA. Known from Greg Rodgers Park in Chula Vista.

Sensitive Species Present within and Known from the Vicinity of the BSA							
Scientific Name	**Common Name**	**Status[1]**	**City of San Diego Status**	**General Habitat Description (Reiser 2001)**	**Habitat Present/Absent**	**Species Present/Absent**	**Rationale**
Dudleya blochmaniae subsp. *blochmaniae*	Blochman's dudleya	G3T2/S2; 1B.1	--	Sandy openings in Diegan coastal sage scrub near the coast.	Present	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (sandy opening in sage scrub near the coast) is marginal in the BSA. Reported from La Jolla near Bird Rock but occurrence likely extirpated. Low potential for occurrence within the BSA.
Dudleya brevifolia	short-leaved dudleya	SE; G1/S1; 1B.1;	MSCP; NE	Open areas of chamise chaparral on Torrey sandstone geologic formations.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Habitat (chamise chaparral on Torrey sandstone with iron concretions) is absent from the BSA. Species has very restricted range within Torrey Pines Ecological Reserve and surrounding areas.
Dudleya variegata	variegated dudleya	G2/S2; 1B.2; BLM:S;	MSCP; NE	Openings in Diegan coastal sage scrub and chaparral, isolated rocky substrates in open grasslands and a proximity to vernal pools and mima mound topography.	Present	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Marginal habitat is present in BSA but habitat is disturbed. Low potential for occurrence within BSA.
Dudleya viscida	sticky dudleya	G2/S2; 1B.2; USFS:S;	MSCP	Very steep north-facing slopes and cliffs.	Absent	Not observed in BSA but surveys not conducted during appropriate time. Assumed absent.	Species' habitat (steep cliffs) is absent from BSA. BSA is well outside of species' reported range
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	G4T2?/S2; 1B.1; BLM:S;	MSCP	Along coastal drainages in mesic chaparral.	Present	Not observed in BSA; Assumed absent.	Habitat (coastal drainages in mesic chaparral and coastal sage scrub) is marginal in BSA. Low potential for occurrence within BSA. Known from Carmel Valley but possibly extirpated from this site.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE: SE; G5T1/S1; 1B.1;	MSCP; NE	Vernal pools.	Absent	Not observed in BSA; Assumed absent.	Species habitat (vernal pools) is absent from BSA. BSA outside of species' reported range.
Euphorbia misera	cliff spurge	G5/S2; 2B.2	--	Maritime succulent scrub and coastal bluffs.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (coastal bluffs and maritime succulent scrub) is absent from BSA
Ferocactus viridescens	San Diego barrel cactus	G3?/S2S3; 2B.1;	MSCP	Hillsides of Diegan coastal sage scrub.	Present	Not observed in BSA.	Habitat (coastal sage scrub) is present in BSA. Moderate to high potential for occurrence in coastal sage scrub habitats within BSA.
Frankenia palmeri	Palmer's frankenia	G3?/S1; 2B.1	--	Periphery of salt marshes.	Absent	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Species habitat (coastal salt marsh) is absent from BSA. BSA well outside species' reported range
Geothallus tuberosus	Campbell's liverwort	G1/S1; 1B.1	--	Mesic coastal sage scrub and vernal pools.	Absent	Not observed in BSA. Assumed absent	Species habitat is absent from BSA.
Grindelia hallii	San Diego gumplant	G2/S2; 1B.2; BLM:S	--	Montane meadows and lower montane coniferous forest.	Absent	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Habitat (montane meadows and lower montane coniferous forest) is absent from BSA. BSA well outside species' reported range.
Harpagonella palmeri	Palmer's grapplinghook	G4/S3: 4.2	--	Clay vertisols within open grassy slopes or Diegan coastal sage scrub.	Present	Not observed in BSA, but surveys not conducted during appropriate time.	Marginal habitat is present in BSA but habitat is disturbed. Low potential for occurrence within BSA.
Heterotheca sessiliflora subsp. *sessiliflora*	beach goldenaster	G4T2T3/S1; 1B.1	--	Sandy locales in Diegan coastal sage scrub.	Present	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Species has low potential for occurrence within BSA. Habitat (coastal sage scrub in sandy locales) is marginal, i.e., disturbed within BSA. Low potential for occurrence within BSA. Known from Crest Canyon at San Dieguito Lagoon.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	G3G5T2T3/S2; 1B.2	--	Clay soils in mosaic of Diegan coastal sage scrub and grasslands.	Present	Not observed in BSA.	Habitat (coastal sage scrub/grassland mix on clay soils) is present within BSA. Low to moderate potential for occurrence within BSA. Known from adjacent areas to BSA at Mt. Soledad and Torrey Pines Ecological Reserve.
Iva hayesiana	San Diego marsh-elder	G3?/S2:2B.2	--	Creeks and intermittent streambeds.	Present	Not observed in BSA.	Species habitat (creeks or intermittent streambeds) is present in BSA. Low to moderate potential for occurrence along drainage s in the BSA. Known from Torrey Pines Ecological Reserve.
Lasthenia glabrata subsp. *coulteri*	Coulter's goldfields	G4T2/S2; 1B.1; BLM:S	--	Tidal marsh areas.	Absent	Not observed in BSA; Assumed absent.	Species habitat (periphery of coastal tidal areas) is absent from the BSA.
Lepechinia cardiophylla	heart-leaved pitcher sage	G3?/S2S3; 1B.2; USFS:S;	MSCP	Chaparral and cismontane woodland.	Absent	Not observed in BSA; Assumed absent.	Species habitat (mixed chaparral and cismontane woodlands) is absent from BSA. BSA outside reported range of this species.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	G5T3/S3; 4.3	--	Openings in chaparral and Diegan coastal sage scrub away from the coast.	Present	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Habitat (openings in chaparral and sage scrub) is present in BSA. No longer recognized by Baldwin et al. (2012) as distinct taxa, but still recognized by Rebman and Simpson (2014). Low to moderate potential within BSA; known from just outside BSA on UCSD.
Leptosyne maritima	sea dahlia	G2/S1; 2B2	--	Sandstone cliffs near the ocean.	Absent	Not observed in BSA, but surveys not conducted during appropriate time.	Habitat (sandstone cliff near the ocean) is not present in the BSA.

Sensitive Species Present within and Known from the Vicinity of the BSA							
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Mobergia calculiformis	light gray lichen	G3/S1; 3	--	On rocks in coastal sage scrub.	Absent	Not observed in BSA. Assumed absent	Habitat (rocks in coastal sage scrub) not observed in BSA. Known from Old Town San Diego. Location is very vague.
Monardella viminea	willowy monardella	FE; SE; G1/S1; 1B.1;	MSCP	Riparian scrub usually in sandy locales in seasonally dry washes, generally with no canopy cover and high amount of river cobbles.	Present	Not observed in BSA; Assumed absent.	Habitat (riparian scrub in sandy locales) is marginal in BSA, i.e., highly disturbed due to high transient usage. Species is known from San Clemente Canyon to the east and BSA is west of species' reported range. Low potential for occurrence within BSA.
Myosurus minimus subsp. *apus*	little mousetail	G5T2Q/S2; 3.1	--	Vernal pools.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (vernal pools) is absent from the BSA.
Nama stenocarpa	mud nama	G4G5/S1S2; 2B.2	--	Muddy embankments of ponds and lakes.	Absent	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Habitat (muddy embankments of ponds and lakes) is absent from BSA.
Navarretia fossalis	spreading navarretia	FT; G2/S2; 1B.1;	MSCP: NE	Vernal pools and vernal swales.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (vernal pools and vernal swales) is absent from the BSA.
Navarretia prostrata	prostrate vernal pool navarretia	G2/S2; 1B.1;	MSCP	Vernal pools.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (vernal pools) is absent from the BSA.
Nemacaulis denudata var. denudata	coast woolly-heads	G3G4T2/S2; 1B.2	--	Coastal sand dunes.	Absent	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Habitat (coastal dunes) is absent from the BSA.
Nemacaulis denudata var. *gracilis*	slender cottonheads	G3G4T3?/S2; 2B.2	--	Coastal and desert sand dunes.	Absent	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Habitat (coastal dunes) is absent from the BSA. Low potential for occurrence within BSA. Known from North Island Air Station.
Orcuttia californica	California Orcutt grass	FE; SE; G1/S1; 1B.1;	MSCP; NE	Vernal pools.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (vernal pools) is absent from the BSA.
Orobanche parishii subsp. *brachyloba*	short-lobed broomrape	G4/T4/S3; 4.2	--	Coastal bluff scrub and coastal dunes.	Absent	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Habitat (coastal bluff scrub and coastal dunes) is absent from BSA.
Phacelia stellaris	Brand's star phacelia	G1/S1; 1B.1	--	Sandy openings in Diegan coastal sage scrub near the coast.	Absent	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Habitat (sandy openings) is present but marginal; BSA not near the coast. Low potential for occurrence within BSA. Known from Torrey Pines Ecological Reserve.
Pinus torreyana subsp. *torreyana*	Torrey pine	G1T1/S1; 1B.2;	MSCP	Closed coniferous forest along the coast.	Present	Present. Approximately 12 individuals observed throughout the BSA. Individuals do not represent natural stands. Individuals have either been planted or became naturalized from ornamental plantings.	More individuals are likely to be present within the BSA as part of the ornamental landscape of private residences and parks.
Pogogyne abramsii	San Diego mesa mint	FE; SE; G1/S1; 1B.1;	MSCP; NE	Vernal pools.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (vernal pools) is absent from the BSA.
Pogogyne nudiuscula	Otay Mesa mint	FE; SE; G1/S1; 1B.1;	MSCP; NE	Vernal pools.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (vernal pools) is absent from the BSA.
Quercus dumosa	Nuttall's scrub oak	G3/S3; 1B.1; USFS:S	--	Coastal chaparral generally on sandstone formations.	Absent	Not observed in BSA; Assumed absent.	Species' habitat is absent from BSA.
Salvia munzii	Munz's sage	G2/S2; 2B.2	--	Chaparral and Diegan coastal sage scrub.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (coastal chaparral generally on sandstone formations) is present within BSA. BSA is well outside the reported range of this species. Low potential for occurrence within BSA. Known from Serra Mesa but most occurrences are south county.
Senecio aphanactis	chaparral ragwort	G3/S2; 2B.2	--	Diegan coastal sage scrub, alkaline flats and cismontane woodland.	Present	Not observed in BSA, but surveys not conducted during appropriate time.	Species' habitat (coastal sage scrub) is present within BSA. Low potential for occurrence within BSA. Old historical report from University Heights San Diego is likely extirpated.
Sphaerocarpos drewei	bottle liverwort	G1/S1; 1B.1	--	On soil in openings of coastal sage scrub and chaparral.	Present	Not observed in BSA. Assumed absent	Known from seven localities within one small region around San Diego (some of them have been recently destroyed and one recent locality on Santa Rosa Plateau. Under shade of coastal sage scrub and seems to be associated with Campbell's liverwort (IUCN 2016). Known Eastgate Mall vernal pools. Low potential for occurrence within BSA based on records.

Sensitive Species Present within and Known from the Vicinity of the BSA							
Scientific Name	**Common Name**	**Status[1]**	**City of San Diego Status**	**General Habitat Description (Reiser 2001)**	**Habitat Present/Absent**	**Species Present/Absent**	**Rationale**
Stemodia durantifolia	purple stemodia	G5/S2; 2B.1	--	Coastal reservoir and other aquatic habitats.	Absent	Not observed in BSA. Assumed absent	Species' habitat (aquatic habitats) is extremely marginal in BSA. Low potential for occurrence within BSA. Known from MCAS Miramar.
Streptanthus bernardinus	Laguna Mountains jewelflower	G3G4/S3S4; 4.3	--	Lower montane coniferous forest.	Absent	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Species' habitat (montane coniferous forest) is absent from BSA. BSA is outside of reported range of this species.
Stylocline citroleum	oil neststraw	G3/S3; 1B.1; BLM:S	--	Coastal sage scrub on clay soils.	Present	Not observed in BSA, but surveys not conducted during appropriate time. Assumed absent.	Not recognized as occurring in San Diego County (Rebman and Simpson 2014). Old specimen from San Diego County may represent variant of the common taxa *Stylocline gnaphalioides* (Reiser 2001). This collection made in 1883 near Montgomery Field. Low potential for occurrence within BSA.
Suaeda esteroa	estuary seablite	G3/S2; 1B.2	--	Periphery of coastal salt marsh.	Absent	Not observed in BSA; Assumed absent.	Species' habitat (coastal salt marsh) is absent from BSA.
Tetracoccus dioicus	Parry's tetracoccus	G3?/S2; 1B.2; BLM:S; USFS:S;	MSCP	Low-growing chamise chaparral generally on gabbro soils.	Absent	Not observed in BSA; Assumed absent.	Habitat (low-growing chamise chaparral on gabbro soils) is absent from the BSA.
Texosporium sancti-jacobi	woven-spored lichen	G3/S1; 3	--	Cryptogamic soils, in chaparral openings.	Absent	Not observed in BSA, though surveys not conducted during appropriate time. Assumed absent.	Cryptogamic soils not observed within BSA but entire BSA not surveyed for these soils.
Invertebrates							
Branchinecta sandiegonensis	San Diego fairy shrimp	FE; G2/S2	--	Seasonally astatic pools that occur in tectonic swales or earth slump basins in patches of grassland and agriculture interspersed in coastal sage scrub and southern mixed chaparral vegetation.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Streptocephalus woottoni	Riverside fairy shrimp	FE; G1G2/S1S2	--	Seasonally astatic pools occurring in tectonic swales or earth slump basins in patches of grassland and agriculture interspersed in coastal sage scrub.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Coelus globosus	globose dune beetle	G1G2/S1S2	--	Coastal dunes (foredunes & sand hummocks, generally not beyond 50m from)	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Lycaena hermes	Hermes copper butterfly	FC; G1/S1	--	Coastal sage scrub, which primarily occurs within San Diego County and is dependent on its larval host plant *Rhamnus crocea* to complete its life cycle; southern mixed chaparral.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Tryonia imitator	California brackishwater snail	G2/S2	--	Freshwater marshes and brackish water salt marshes.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Danaus plexippus pop. 1	Monarch butterfly (California overwintering population)	G4T2T3/S2S3	--	Eucalyptus woodlands.	Present	Not observed in the BSA.	Very low potential to occur within the BSA.
Bombus caliginosus	obscure bumble bee	G4?/S1S2	--	Open grassy coastal prairies and Coast Range meadows.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Euphydryas editha quino	Quino checkerspot butterfly	FE; G5T1T2/ S1S2	--	Sunny openings within coastal sage scrub and chaparral scrublands. Requires plantain (*Plantago* spp.) or owl's clover (*Castilleja exserta*) as a host plant.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Amphibians							
Spea hammondii	western spadefoot	SSC; G3/S3	--	Occurs primarily in grassland situations, but occasional populations occur in valley-foothill hardwood woodlands.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Reptiles							
Phrynosoma blainvillii	coast horned lizard	SSC; G3G4/S3S4	--	Occurs in annual grassland, coastal sage scrub, chaparral, and woodland communities.	Present	Not observed in the BSA.	Low potential to occur within the BSA.
Thamnophis hammondii	two-striped gartersnake	SSC; G4/S3S4	--	Along permanent creeks, streams, vernal pools, and intermittent creeks. Occasionally found in chaparral or other habitats relatively far from permanent water.	Absent	Not observed in the BSA.	No potential to occur within the BSA.

Sensitive Species Present within and Known from the Vicinity of the BSA							
Scientific Name	**Common Name**	**Status[1]**	**City of San Diego Status**	**General Habitat Description (Reiser 2001)**	**Habitat Present/Absent**	**Species Present/Absent**	**Rationale**
Diadophis punctatus similis	San Diego ringneck snake	G5T2T3/S2?	--	Oak woodlands and canyon bottoms. Sometimes encountered in grassland, chaparral, and coastal sage scrub.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Charina trivirgata	rosy boa	G4G5/S3S4	--	In or near rocky areas in coastal sage scrub, chaparral, and desert scrub.	Present	Not observed in the BSA.	Low potential to occur within the BSA.
Aspidoscelis hyperythra	orange-throated whiptail	WL; G5/S2S3	--	Coastal sage scrub, chaparral, edges of riparian woodlands, and washes; and in weedy, disturbed areas adjacent to these habitats.	Present	Not observed in the BSA.	Low potential to occur within the BSA.
Aspidoscelis tigris stejnegeri	coastal whiptail	SSC; G5T5/S3	--	Chaparral, woodland, riparian areas with sparse foliage.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Plestiodon skiltonianus interparietalis	Coronado Island skink	WL; G5T2T3Q/S1S2	--	Grasslands, coastal sage scrub, open chaparral, pine oak woodland, and coniferous forests.	Present	Not observed in the BSA.	Low potential to occur within the BSA.
Crotalus ruber	red-diamond rattlesnake	SSC; G3/S3	--	Chaparral, woodland, and arid habitats in rocky areas and dense vegetation.	Present	Not observed in the BSA.	Low potential to occur within the BSA.
Salvadora hexalepis virgultea	coast patch-nosed snake	SSC; G5T4/ S2S3	--	Primarily chaparral, but also coastal sage scrub and areas of grassland mixed with scrub.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Birds							
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT SE	--	Inhabits extensive stands of mature riparian woodlands.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Circus cyaneus	northern harrier	SSC	--	Occurs in grasslands, agricultural fields and other open habitats.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Accipiter cooperi	Cooper's hawk	WL	MSCP	Usually in oak woodlands, but occasionally in willow or eucalyptus woodlands.	Present	Present.	Detected foraging on multiple occasions outside the BSA.
Athene cunicularia	burrowing owl	SSC	MSCP	Found mainly in grassland and open scrub from the seashore to foothills. Strongly associated with ground squirrel burrows.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Falco columbarius	merlin	WL	--	Occurs in a variety of woodland habitats.	Present	Not observed in the BSA.	High potential to occur in winter as it has been detected in similar habitat less than 1 mile from the BSA.
Falco peregrinus anatum	American peregrine falcon	SP	MSCP	Open habitats from tundra, moorlands, steppe, and seacoasts to mountains, and open forested regions, especially where there are suitable nesting cliffs.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Empidonax traillii extimus	southwestern willow flycatcher	FE	MSCP	Restricted to a few colonies in riparian woodlands scattered throughout southern California. Requires relatively dense riparian vegetation with well-developed understory associated with water.	Present	Not observed in the BSA.	Low potential to nest within the BSA as available habitat is very marginal in quality and extent. Migrant individuals might find suitable foraging habitat within the BSA.
Lanius ludovicianus	loggerhead shrike	SSC	--	Occurs in grasslands, agricultural fields and other open habitats.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Vireo bellii pusillus	least Bell's vireo	FE SE	MSCP	Riparian woodland with understory of dense young willows or mulefat and willow canopy. Nests often placed along internal or external edges of riparian thickets.	Present	Not observed in the BSA.	High potential to occur as there is suitable habitat within the BSA and breeding populations exists within 5 miles of the BSA.
Eremophila alpestris actia	California horned lark	WL	--	Found year-round in coastal strand, grasslands, and sandy deserts of San Diego County. Typically a disturbance regime species exploiting the open ground following plowed fields or fire in search of insects.	Absent	Not observed in the BSA.	No potential to occur within the BSA.
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	SSC	MSCP	Coastal sage scrub with extensive stands of tall prickly pear or cholla cacti (*Opuntia* sp.).	Absent	Not observed in the BSA.	No potential to occur within the BSA.

Sensitive Species Present within and Known from the Vicinity of the BSA							
Scientific Name	**Common Name**	**Status[1]**	**City of San Diego Status**	**General Habitat Description (Reiser 2001)**	**Habitat Present/Absent**	**Species Present/Absent**	**Rationale**
Polioptila californica californica	coastal California gnatcatcher	FT SSC	MSCP	Diegan coastal sage scrub dominated by California sagebrush (*Artemisia californica*) and flat-topped buckwheat (*Eriogonum fasciculatum*); generally avoids steep slopes above 25 percent and dense, tall vegetation for nesting.	Present	Detected during the 2018 protocol surveys within the BSA.	Assumed to nest within the BSA as suitable habitat is present within the BSA and the closest known occurrence of this species is less than 1 mile from the BSA. The 2018 protocol surveys documented the species as resident within the BSA, exhibiting nest-building activities, and probable nesting behavior.
Setophaga petechia	yellow warbler	SSC	--	A fairly common summer breeding resident found along mature riparian woodlands that consist of cottonwood, willow, alder, and ash trees. Restricted to this increasingly patchy habitat.	Present	Present.	Two individuals detected on one survey were probably migrants. Suitable habitat in the BSA is of marginal quality and extent, so nesting is unlikely.
Icteria virens	yellow-breasted chat	SSC	--	Riparian woodland, with well-developed, dense understory.	Present	Not observed in the BSA.	High potential to occur in the BSA.
Artemisiospiza belli	Bell's sparrow	WL	--	Occurs in stunted chaparral and sage scrub habitat with little or no leaf litter.	Absent	Not observed in the BSA.	Moderate potential to occur as it has been observed historically within a mile of the BSA.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	WL	MSCP	Occurs in sage scrub and openings in chaparral.	Present	Not observed in the BSA.	High potential to nest within the BSA as suitable habitat is present within the BSA and the closest known occurrence of this species is less than 1 mile from the BSA.
Sialia mexicana	western bluebird	--	MSCP	Open woodlands of oaks, riparian deciduous trees, or conifers with herbaceous understory. Sparse to open-canopied, mature, valley foothill and montane hardwood and valley foothill hardwood-conifer habitats are optimal.	Present	Present.	This species was detected outside of the BSA in the adjacent riparian woodland.
Mammals							
Taxidea taxus	American badger	SSC; G5/S3	--	Drier, open stages of most shrub, forest, and herbaceous habitats with friable soils.	Present	Not observed in the BSA.	Low potential to occur within the BSA.
Neotoma lepida intermedia	San Diego desert woodrat	SSC; G5T3T4/S3S4	--	Inhabits areas with dense vegetation including habitats such as coastal sage scrub and chaparral, and areas where rock crevices are present.	Present	Not observed in the BSA.	Low potential to occur within the BSA.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	SSC; G5T3T4 /S3S4	--	Coastal sage scrub and weedy growth, often on sandy substrates.	Present	Not observed in the BSA.	Low potential to occur within the BSA.

Sensitive Species Present within and Known from the Vicinity of the BSA

Scientific Name	Common Name	Status[1]	City of San Diego Status	General Habitat Description (Reiser 2001)	Habitat Present/Absent	Species Present/Absent	Rationale

Sensitivity Status Key:

FE Federally endangered
FT Federally threatened
FPT Currently under review for federally proposed threatened status
FC Federal candidate for listing as threatened or endangered
FSC Federal Species of Concern
SE State of California endangered
ST State of California threatened
SP State of California protected
SSC State of California Species of Concern
WL State Watch List
SA State Special Animal Listing
BLM:S BLM sensitive species
USFS:S USFS Sensitive Species

CNDDB Global/State Ranking

G1 – Critically imperiled (at very high risk of extinction due to extreme rarity often 5 or fewer populations, very steep declines, or other factors
G2 – Imperiled (at high risk of extinction due to very restricted range, very few populations, often 20 or fewer, steep declines, or other factors
G3 - Vulnerable (at moderate risk of extinction due to restricted range, relatively few populations (often 80 or fewer, recent and widespread declines, or other factors
G4 – Apparently secure (uncommon but not rare; some cause for long-term concern due to declines or other factors
G5 – Secure (common, widespread and abundant
S1 – Critically imperiled (critically imperiled in the state because of extreme rarity often 5 or fewer populations, or because of factors such as very steep declines making it extremely vulnerable to extirpation from the state)
S2 – Imperiled (imperiled in the state because of rarity due to very restricted range, very few populations, often 20 or fewer, steep declines, or other factors making it very vulnerable to extirpation from the state).
S3 – Vulnerable (vulnerable in the state due to restricted range, relatively few populations, often 80 or fewer, recent and widespread declines, or other factors making it vulnerable to extirpation from the state)
S4 – Apparently secure (uncommon but not rare in the state; some cause for long-term concern due to declines or other factors)
S5 – Secure (common, widespread and abundant in the state)
T – Rank applies to a subspecies or variety
Q – taxonomic questions about taxon
? – uncertainty about the rank

California Rare Plant Ranks

1B – Plants rare, threatened, or endangered in California and elsewhere
2A – Plants presumed extirpated from California but more common elsewhere
2B – Plants rare, threatened, or endangered in California but more common elsewhere
3 – Plants about which more information is needed – a review list
4 – Plants of limited distribution – a watch list

Threat Ranks

.1 – Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
.2 – Moderately threatened in California (20–80 percent of occurrences threatened/moderate degree and immediacy of threat)
.3 – Not very threatened in California (<20 percent of occurrences threatened/low degree and immediacy of threat)

City of San Diego

MSCP = Species covered by City of San Diego Multiple Species Conservation Program Subarea Plan
NE = Narrow endemic plant under City of San Diego Multiple Species Conservation Program Subarea Plan

[1] CDFW CNDDB 2016 b, c, d, & e

APPENDIX G: PLANT SPECIES OBSERVED ONSITE

Scientific Name	Common Name
CONIFERAE	
Pinaceae – Pine Family	
Pinus attenuate	Knobcone pine
Pinus torreyana subsp. *torreyana*	Torrey pine
Pinus sp.	Pine
ANGIOSPERMAE- EUDICOTYLEDONEAE	
Adoxaceae – Adoxa Family	
Sambucus nigra subsp. *caerulea*	Blue elderberry
Aizoaceae – Fig-Marigold Family	
Carpobrotus edulis	Capetown fig
Mesembryanthemum crystallinum	Crystalline iceplant
Anacardiaceae – Sumac or Cashew Family	
Rhus integrifolia	Lemonadeberry
Schinus molle	Peruvian pepper tree
Schinus terebinthifolius	Brazilian pepper tree
Toxicodendron diversilobum	Poison oak
Apiaceae – Carrot Family	
Foeniculum vulgare	Fennel
Apocynaceae – Dogbane Family	
Carissa macrocarpa	Natal plum
Asteraceae – Sunflower Family	
Ambrosia psilostachya	Western ragweed
Artemisia californica	California sagebrush
Artemisia palmeri	Palmer's sagewort
*Baccharis pululari*s subsp. *consanguinea*	Coyote brush
Baccharis sarothroides	Broom baccharis
Cardus pycnocephalus subsp. *pycnocephalus*	Italian thistle
Centaurea melitensis	Tocalote
Conyza sp.	Horseweed
Corethrogyne filaginifolia var. *filaginifolia*	California sand-aster
Encelia californica	California encelia
Hedypnois cretica	Crete hedypnois
Heterotheca grandiflora	Telegraph weed
Isocoma menziesii	Goldenbush
Pseudognaphalium sp.	Everlasting
Sonchus oleraceus	Common sow-thistle
Stephanomeria sp.	Wreath-plant
Taraxacum officinale	Common dandelion

Scientific Name	Common Name
Boraginaceae – Borage Family	
Heliotropium curasavicum var. *oculatum*	Salt heliotrope
Brassicaceae – Mustard Family	
Brassica nigra	Black mustard
Hirschfeldia incana	Short-pod mustard
Cactaceae – Cactus Family	
Opuntia littoralis	Coast prickly pear
Caprifoliaceae – Pink Family	
Lonicera sp.	Honeysuckle
Chenopodiaceae – Goosefoot Family	
Atriplex semibaccata	Australian saltbush
Salsola tragus	Russian thistle
Cleomaceae – Spiderflower Family	
Peritoma arborea var *arborea*	Coast bladderpod
Dipsacaceae – Teasel Family	
Dipsacus sativus	Fuller's teasel
Euphorbiaceae – Spurge Family	
Croton setiger	Doveweed
Ricinus communis	Castor bean
Fabaceae – Legume Family	
Acacia cyclops	Western coastal wattle
Acacia redolens	Vanilla scented wattle
Acmispon glaber var. *glaber*	Coast deerweed
Melilotus albus	White sweetclover
Fagaceae – Oak Family	
Quercus agrifolia var. *agrifolia*	Coast live oak
Quercus dumosa	Nuttal's scrub oak
Lamiaceae – Mint Family	
Salvia mellifera	Black sage
Myrtaceae – Myrtle Family	
Eucalyptus citriodora	Lemon-scented gum
Eucalyptus globulus	Blue gum
Melaleuca sp.	Melaleuca
Oleaceae – Olive Family	
Olea europaea	Olive
Onagraceae Evening Primrose Family	
Oenothera elata subsp. *hookeri*	Hooker's evening-primrose
Platanaceae – Sycamore Family	

Scientific Name	Common Name
Platanus x hispanica	London plane tree
Platanus racemosa	Western sycamore
Plumbaginaceae – Leadwort Family	
Plumago auriculata	Cape Plumago
Polygonaceae – Buckwheat Family	
Eriogonum sp.	Buckwheat
Eriogonum fasciculatum var. *fasciculatum*	Flat-topped buckwheat
Proteaceae – Protea Family	
Grevillea rosmarinifolia	Rosemary grevillea
Roseaceae – Rose Family	
Cotoneaster sp.	Cotoneaster
Heteromeles arbutifolia	Toyon
Rhapiolepis indica	Indian hawthorn
Salixaceae – Willow Family	
Salix lasiolepis	Arroyo willow
Solanaceae Nightshade Family	
Datura wrightii	Jimson weed
Nicotiana glauca	Tree tobacco
Verbenaceae – Vervain Family	
Lantana montevidensis	Lantana
ANGIOSPERMAE- MONOCOTYLEDONEAE	
Agavaceae – Agave Family	
Yucca schidigera	Mohave yucca
Amaryllidaceae – Amaryllis Family	
Agapanthus orientalis	Lily-of-the-Nile
Arecaceae – Palm Family	
Phoenix sp.	Date palm
Washingtonia robusta	Mexican fan palm
Syagrus romanzoffiana	Queen palm
Asphodelaceae – Asphodel Family	
Asphodelus fistulosus	Hollow-stem asphodel
Iridaceae – Iris Family	
Sisyrinchium bellum	Blue-eyed grass
Liliaceae – Lily Family	
Lirope muscari	Lily turf
Poaceae – Grass Family	
Bromus diandrus	Ripgut brome
Bromus hordeaceus	Soft chess

Scientific Name	Common Name
Bromus rubens	Red brome
Cenchrus setaceus	African fountain grass
Cortaderia sp.	Pampas grass
Cynodon dactylon	Bermuda grass
Ehrharta erecta	Panic Veldt grass
Elymus condensatus	Giant wild rye
Festuca myuros	Rat-tail fescue
Stipa miliacea var. *miliacea*	Smilo grass
Strelitziaceae -	
Strelitzia reginae	Bird-of-Paradise

APPENDIX H: WILDLIFE SPECIES OBSERVED ONSITE

Common Name	Scientific Name	Order	Family	Federal Status (Endangered/ Threatened)	California Status (Endangered/ Threatened)
Invertebrates					
Funereal Duskywing	*Erynnis funeralis*	Lepidoptera	Hesperiidae	none	none
Western Tailed-Blue	*Cupido amyntula*	Lepidoptera	Lycaenidae	none	none
Marine Blue	*Leptotes marina*	Lepidoptera	Lycaenidae	none	none
Sylvan Hairstreak	*Satyrium sylvinus*	Lepidoptera	Lycaenidae	none	none
Gray Hairstreak	*Strymon melinus*	Lepidoptera	Lycaenidae	none	none
Monarch Butterfly	*Danaus plexippus*	Lepidoptera	Nymphalidae	none	none
Lorquin's Admiral	*Limenitis lorquini*	Lepidoptera	Nymphalidae	none	none
Mourning Cloak	*Nymphalis antiopa*	Lepidoptera	Nymphalidae	none	none
Painted Lady	*Vanessa cardui*	Lepidoptera	Nymphalidae	none	none
Western Tiger Swallowtail	*Papilio rutulus*	Lepidoptera	Papilionidae	none	none
Anise Swallowtail	*Papilio zelicaon*	Lepidoptera	Papilionidae	none	none
Orange Sulphur	*Colias eurytheme*	Lepidoptera	Pieridae	none	none
Cloudless (Senna) Sulphur	*Phoebus sennae marcellina*	Lepidoptera	Pieridae	none	none
Cabbage White	*Pieris rapae*	Lepidoptera	Pieridae	none	none
Reptiles & Amphibians					
Southern Alligator Lizard	*Elgaria multicarinata*	Squamata	Anguidae	none	none
Western Fence Lizard	*Sceloporus occidentalis*	Squamata	Phrynosomatidae	none	none
Western Side-blotched Lizard	*Uta stansburiana elegans*	Squamata	Phrynosomatidae	none	none
Avian					
Cooper's Hawk	*Accipiter cooperii*	Accipitriformes	Accipitridae	none	none
Red-tailed Hawk	*Buteo jamaicensis*	Accipitriformes	Accipitridae	none	none
Red-shouldered Hawk	*Buteo lineatus*	Accipitriformes	Accipitridae	none	none
White-tailed Kite	*Elanus leucurus*	Accipitriformes	Accipitridae	none	none
Mallard	*Anas platyrhynchos*	Anseriformes	Anatidae	none	none
White-throated Swift	*Aeronautes saxatalis*	Apodiformes	Apodidae	none	none
Black-chinned Hummingbird	*Archilochus alexandri*	Apodiformes	Trochilidae	none	none
Anna's Hummingbird	*Calypte anna*	Apodiformes	Trochilidae	none	none
Rufous Hummingbird	*Selasphorus rufus*	Apodiformes	Trochilidae	none	none
Allen's Hummingbird	*Selasphorus sasin*	Apodiformes	Trochilidae	none	none
Western Gull	*Larus occidentalis*	Charadriiformes	Laridae	none	none

Common Name	Scientific Name	Order	Family	Federal Status (Endangered/ Threatened)	California Status (Endangered/ Threatened)
Long-billed Curlew	*Numenius americanus*	Charadriiformes	Scolopacidae	none	none
Mourning Dove	*Zenaida macroura*	Columbiformes	Columbidae	none	none
Virginia Rail	*Rallus limicola*	Gruiformes	Rallidae	none	none
Bushtit	*Psaltriparus minimus*	Passeriformes	Aegithalidae	none	none
Black-headed Grosbeak	*Pheucticus melanocephalus*	Passeriformes	Cardinalidae	none	none
Western Tanager	*Piranga ludoviciana*	Passeriformes	Cardinalidae	none	none
Western Scrub-Jay	*Aphelocoma californica*	Passeriformes	Corvidae	none	none
American Crow	*Corvus brachyrhynchos*	Passeriformes	Corvidae	none	none
Common Raven	*Corvus corax*	Passeriformes	Corvidae	none	none
Dark-eyed Junco	*Junco hyemalis*	Passeriformes	Emberizidae	none	none
Song Sparrow	*Melospiza melodia*	Passeriformes	Emberizidae	none	none
California Towhee	*Melozone crissalis*	Passeriformes	Emberizidae	none	none
Spotted Towhee	*Pipilo maculatus*	Passeriformes	Emberizidae	none	none
House Finch	*Haemorhous mexicanus*	Passeriformes	Fringillidae	none	none
Lesser Goldfinch	*Spinus psaltria*	Passeriformes	Fringillidae	none	none
American Goldfinch	*Spinus tristis*	Passeriformes	Fringillidae	none	none
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	Passeriformes	Hirundinidae	none	none
Red-winged Blackbird	*Agelaius phoeniceus*	Passeriformes	Icteridae	none	none
Hooded Oriole	*Icterus cucullatus*	Passeriformes	Icteridae	none	none
Brown-headed Cowbird	*Molothrus ater*	Passeriformes	Icteridae	none	none
Northern Mockingbird	*Mimus polyglottos*	Passeriformes	Mimidae	none	none
California Thrasher	*Toxostoma redivivum*	Passeriformes	Mimidae	none	none
Wilson's Warbler	*Cardellina pusilla*	Passeriformes	Parulidae	none	none
Macgillivray's Warbler	*Geothlypis tolmiei*	Passeriformes	Parulidae	none	none
Common Yellowthroat	*Geothlypis trichas*	Passeriformes	Parulidae	none	none
Yellow-breasted Chat	*Icteria virens*	Passeriformes	Parulidae	none	none
Orange-crowned Warbler	*Oreothlypis celata*	Passeriformes	Parulidae	none	none
Nashville Warbler	*Oreothlypis ruficapilla*	Passeriformes	Parulidae	none	none
Yellow-rumped Warbler	*Setophaga coronata*	Passeriformes	Parulidae	none	none

Common Name	Scientific Name	Order	Family	Federal Status (Endangered/ Threatened)	California Status (Endangered/ Threatened)
Black-throated Gray Warbler	*Setophaga nigrescens*	Passeriformes	Parulidae	none	none
Yellow Warbler	*Setophaga petechia brewsteri*	Passeriformes	Parulidae	none	none
American Redstart	*Setophaga ruticilla*	Passeriformes	Parulidae	none	none
Townsend's Warbler	*Setophaga townsendi*	Passeriformes	Parulidae	none	none
House Sparrow	*Passer domesticus*	Passeriformes	Passeridae	none	none
Blue-gray Gnatcatcher	*Polioptila caerulea*	Passeriformes	Polioptilidae	none	none
European Starling	*Sturnus vulgaris*	Passeriformes	Sturnidae	none	none
Wrentit	*Chamaea fasciata*	Passeriformes	Sylviidae	none	none
Marsh Wren	*Cistothorus palustris*	Passeriformes	Troglodytidae	none	none
Bewick's Wren	*Thryomanes bewickii*	Passeriformes	Troglodytidae	none	none
House Wren	*Troglodytes aedon*	Passeriformes	Troglodytidae	none	none
Western Bluebird	*Sialia mexicana*	Passeriformes	Turdidae	none	none
American Robin	*Turdus migratorius*	Passeriformes	Turdidae	none	none
Western Wood-Pewee	*Contopus sordidulus*	Passeriformes	Tyrannidae	none	none
Pacific-slope Flycatcher	*Empidonax difficilis*	Passeriformes	Tyrannidae	none	none
Hammond's Flycatcher	*Empidonax hammondii*	Passeriformes	Tyrannidae	none	none
Ash-throated Flycatcher	*Myiarchus cinerascens*	Passeriformes	Tyrannidae	none	none
Black Phoebe	*Sayornis nigricans*	Passeriformes	Tyrannidae	none	none
Cassin's Kingbird	*Tyrannus vociferans*	Passeriformes	Tyrannidae	none	none
Cassin's Vireo	*Vireo cassinii*	Passeriformes	Vireonidae	none	none
Warbling Vireo	*Vireo gilvus*	Passeriformes	Vireonidae	none	none
Hutton's Vireo	*Vireo huttoni*	Passeriformes	Vireonidae	none	none
Great Egret	*Ardea alba*	Pelecaniformes	Ardeidae	none	none
Northern Flicker	*Colaptes auratus*	Piciformes	Picidae	none	none
Nuttall's Woodpecker	*Picoides nuttallii*	Piciformes	Picidae	none	none
Downy Woodpecker	*Picoides pubescens*	Piciformes	Picidae	none	none
Mammals					
Mule Deer	*Odocoileus hemionus*	Artiodactyla	Cervidae	none	none
Coyote	*Canis latrans*	Carnivora	Canidae	none	none
Raccoon	*Procyon lotor*	Carnivora	Procyonidae	none	none
Desert Cottontail	*Sylvilagus audubonii*	Lagomorpha	Leporidae	none	none

Common Name	Scientific Name	Order	Family	Federal Status (Endangered/ Threatened)	California Status (Endangered/ Threatened)
California Ground Squirrel	*Spermophilus beecheyi*	Rodentia	Sciuridae	none	none