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BIOLOGICAL RESOURCES REPORT COLLEGE AREA COMMUNITY PLAN UPDATE

San Diego, California

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Table of Acronyms

AMSL	Above Mean Sea Level
ASMDs	Area Specific Management Directives
BCME	Biological Construction Mitigation/Monitoring Exhibit
BLC	Boundary Line Correction
BMPs	Best Management Practices
BRR	Biological Resources Report
CAP	Climate Action Plan
CACPA	College Area Community Plan Area
CACPU	College Area Community Plan Update
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game
City	City of San Diego
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of San Diego
CRPR	California Rare Plant Ranks
CSVR	Consultant Site Visit Record
CWA	Clean Water Act
DEIR	Draft Environmental Impact Report
DSD	Development Services Department
ED	Environmental Designee
ESL	Environmentally Sensitive Lands
FEIR	Final Environmental Impact Report
FESA	Federal Endangered Species Act
HCP	Habitat Conservation Plan
I	Interstate
ITP	Incidental Take Permit
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MCAS	U.S. Marine Corps Air Station
MHPA	Multi-Habitat Planning Area

MMC	Mitigation Monitoring Coordination
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MSCP	Multiple Species Conservation Program
NCCP	Natural Community Conservation Program
NRCS	Natural Resources Conservation Service
NRMP	Natural Resource Management Plan
NTP	Notice to Proceed
OR-1-2	Open Space Residential Zone
PAR	Property Analysis Record
PUs	Planning Units
RBC	Rocks Biological Consulting
RWQCB	Regional Water Quality Control Board
SanGIS	San Diego Geographic Information Source
SDMC	San Diego Municipal Code
SDSU	San Diego State University
SMARA	State Surface Mining and Reclamation Act
SR	State Route
TNWs	Traditional Navigable Waterways
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VPHCP	Vernal Pool Habitat Conservation Plan
WoS	Waters of the State
WoUS	Waters of the U.S.

1 Introduction

The College Area Community Plan Update (CACPU) is a comprehensive update to the existing College Area Community Plan (City of San Diego [City] 1989). The CACPU establishes an updated vision and objectives for the College Are community that implements and aligns with the City's amended General Plan (Blueprint SD) land use framework. The CACPU also aligns with the policy direction of the citywide Climate Action Plan (CAP), Parks Master Plan, and Climate Resilient SD. The update aims to reinforce the community's role as a campus town, revitalize key activity centers, provide housing options and recreational opportunities, and strengthen connections between San Diego State University (SDSU) and the community. As such, the CACPU operates in conjunction with the SDSU Campus Master Plan, which guides development of the campus and provides a long-term vision for future student enrollment and facility demands. The CACPU identifies community needs and provides goals, policies, and Supplemental Development Regulations for its future implementation.

1.1 PROJECT LOCATION

The College Area Community Plan Area (CACPA) includes approximately 1,924 acres and is located in the central portion of the City of San Diego (City) within San Diego County (County). The CACPA is bounded by Interstate (I-) 8 on the north, El Cajon Boulevard on the south, and the City of La Mesa on the east. The western boundary is formed along Fairmount Avenue, Montezuma Road, and Collwood Boulevard. Surrounding communities include the Mission Valley Community Plan Area to the north; the City of La Mesa to the east; the communities of Rolando Village, El Cerrito, and Redwood Village to the south; and the Kensington-Talmadge Community Plan area to the west (Figure 1). The CACPA is located on the United States Geological Survey (USGS), 7.5-minute series La Mesa (2021) Quadrangle Map (Figure 2).

1.2 PROJECT DESCRIPTION

To address the needs of the College Area community, the CACPU stipulates the following guiding principles for future development:

- Buildings, streets, parks and public spaces that provide places to gather, enhance community identity and promote sustainability and livability.
- Diverse and accessible housing opportunities near the East Campus Medical Center at UC San Diego Health, San Diego State University, transit corridors and activity centers.
- Safe, enjoyable, and efficient travel that makes it easy to travel without a car.
- A thriving, sustainable, and innovative business district that contributes to community vitality and growth.
- Strong connections to San Diego State University to promote community investment, including start-ups, craft businesses, and good jobs.

- Improved air quality, health, recreation, and connectivity between neighborhoods, parks, schools, businesses, the East Campus Medical Center at UC San Diego Health and San Diego State University.
- Preserved and expanded parks, open space, natural resources, and environmentally sensitive areas.
- A resilient and healthy community powered by renewable energy and an emissions-free transportation system.
- Spaces that support cultural exchange with the community, local businesses, schools, East Campus Medical Center at UC San Diego Health, San Diego State University and other local arts organizations.
- Tree lined mixed-use corridors for people to walk and bike to nearby activity centers including shopping, jobs, schools, transit, parks and San Diego State University.
- New buildings with restaurants, stores, offices and homes that can serve as spaces for people to gather and socialize.
- Opportunities for a variety of new homes for families to move into the community, create opportunities for seniors that wish to downsize and remain in the community and students living near the University.

The CACPU will address all aspects of community development and provide recommendations to guide this development over the next 20 to 30 years. The CACPU provides more opportunities for homes, jobs, and mixed-use development connected to SDSU; retail and employment centers; residential areas; public spaces; and bus and trolly stations while also focusing on other aspects, such as protecting natural resources, open space, and biodiversity.

The CACPA includes 214 acres of land designated as Multi-Habitat Planning Area (MHPA) under the City's Multiple Species Conservation Plan (MSCP). Planning for these lands is addressed in the Conservation and Recreation elements of the existing College Area Community Plan (City 1989) and in the City's MSCP Subarea Plan. Within the MHPA, development remains limited to protect and ensure the viability of "covered" species, as well as to preserve a network of open space, habitat, and wildlife linkages in San Diego.

The City has existing regulations in the Land Development Code that require new development to minimize encroaching on open space, steep slopes, and canyons. The CACPU also proposes climate policies that support the CAP's citywide greenhouse gas (GHG) emissions and renewable energy goals. Goals presented in the Open Space and Conservation and Recreation Elements of the CACPU include:

- Protection and preservation of natural areas and sensitive biological resources.
- Protection, enhancement and longterm management of an open space system that preserves canyonlands, habitat, and sensitive biological resources.
- Development patterns that preserve natural landforms, public and private open spaces, wildlife linkages, sensitive species and habitats, watersheds and natural drainage systems, and that contribute to clean air and clean water.

- Equitable parks and recreational facilities that meet the needs of a broad range of users of all ages and abilities.
- Easy, safe and enjoyable access to multiple types of park and recreation opportunities.
- A connected system of parks and recreational facilities.

As part of this vision, the CACPU identifies several new public facilities and developments. The majority of these would occur within highly urbanized areas, however some proposed parks and recreation facilities occur within areas that may support biological resources (please see Draft CACPU, Figure 6-1 for additional information and locations). These include:

- Improvements to Montezuma Park
- Adams-Baja Trail and Pocket Parks
- Brockbank Place Overlook Park
- 62nd Street Park
- Saranac Pocket Park
- Alvarado Creek Park

Detailed plans have not been developed for these facilities, and project-specific biological surveys have not been completed for the facilities. As such, the proposed facilities are addressed at a programmatic level herein.

The CACPU also identifies several important policies and recommendations for the CACPA, as identified in Table 1, below.

Table 1. College Area Community Plan Update Policies and Recommendations Pertaining to Biological Resources

Policy	Description
6.12	Design trails within the Multi-Habitat Planning Area and Open Space that comply with the Environmentally Sensitive Lands Regulations and Multiple Species Conservation Program Subarea Plan.
7.4	Encourage fire resistant landscaping and design, such as the use of fire-resistant plant species and non-combustible materials, fire breaks, and regular brush management.
7.5	Promote open space conservation and restoration of natural lands on lands designated as open space, including lands within the MHPA.
7.6	Protect and strengthen sensitive native habitats.
8.21	Provide routine brush management within the City owned open space.

To inform the CACPU, this biological resources report (BRR) provides a summary of the existing biological resources within the CACPA and provides a programmatic-level assessment of potential impacts on biological resources that may occur through implementation of the CACPU. This analysis does not include site-specific surveys but outlines the framework that future site-specific

development would be required to follow to demonstrate consistency with City plans, policies, and regulations relating to biological resources.

FIGURE 1. REGIONAL LOCATION

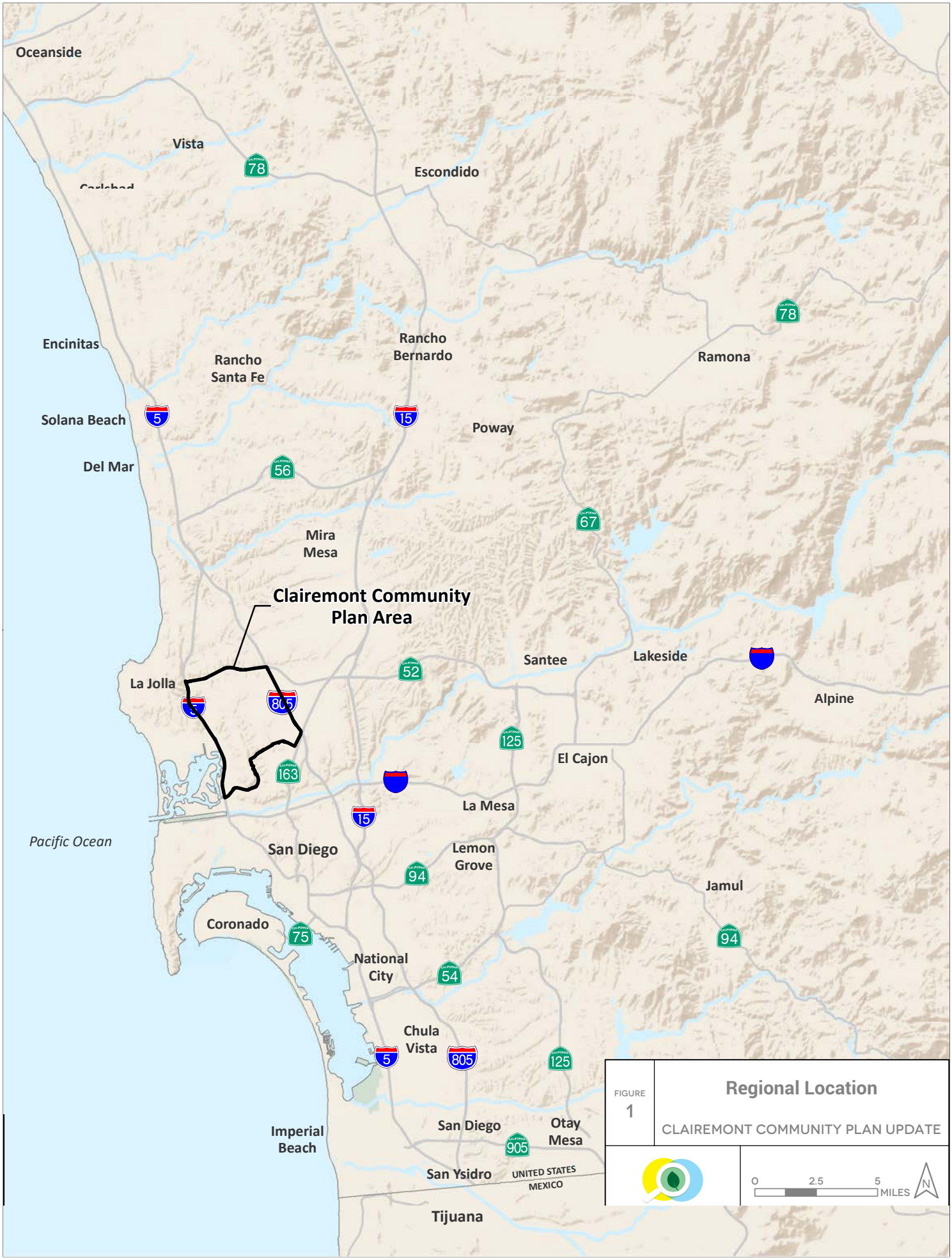

Oceanside
Vista
Carlsbad
Escondido
Encinitas
Rancho Santa Fe
Rancho Bernardo
Ramona
Solana Beach
Poway
Del Mar
Mira Mesa
Clairemont Community Plan Area
La Jolla
Santee
Lakeside
Alpine
El Cajon
La Mesa
Pacific Ocean
San Diego
Lemon Grove
Jamul
Coronado
National City
Chula Vista
Imperial Beach
San Diego
Otay Mesa
San Ysidro
UNITED STATES
MEXICO
Tijuana
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75
54
905
FIGURE 1
Regional Location
CLAIREMONT COMMUNITY PLAN UPDATE
0
2.5
5
MILES
N

FIGURE 2. USGS TOPOGRAPHY



Figure 2
USGS Topography

Date: 9/9/2025 Path: L:\GIS\PGIS\Community Planning\College\Plan_Update\MXDs\Draft Plan Maps\Addendum Aerial USGS Topography.aprx

2 Regulatory Framework

In addition to jurisdictional resource regulations, the CACPU is governed by federal, state, and local policies and regulations. This section provides a summary of regulations applicable to the CACPU area. Based on a programmatic review of College Area CPU policies, the proposed policies would not conflict with local, state, or biological regulations. Future site-specific development within the CACPU would undergo subsequent environmental review to ensure consistency with the City's regulatory framework for addressing biological resources impacts including the City's Environmentally Sensitive Lands (ESL) Regulations, Biology Guidelines, MSCP Subarea Plan, and Vernal Pool Habitat Conservation Plan (VPHCP).

2.1 FEDERAL

Federal regulations that apply to the CACPU are discussed in this section.

2.1.1 FEDERAL ENDANGERED SPECIES ACT

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

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

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

2.1.2 MIGRATORY BIRD TREATY ACT

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to

place restrictions on disturbance of active bird nests during the nesting season. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

2.1.3 RIVERS AND HARBORS ACT AND CLEAN WATER ACT

The Rivers and Harbors Act of 1899 and the Clean Water Act (CWA) regulate project activities within non-marine traditional navigable waters (TNWs) and/or Waters of the U.S. (WoUS). The discharge of any pollutant from a point source into TNWs 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 Wetland and Non-Wetland WoUS is overseen by the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA. Projects can be permitted on an individual basis or be covered by one of several approved nationwide permits or regional general permits. In addition, the Regional Water Quality Control Board (RWQCB) issues Water Quality Certifications under Section 401 of the CWA for project activities that fill or dredge within Wetland and Non-Wetland WoUS and Waters of the State (WoS), including isolated waters such as vernal pools and other waters showing lack of connectivity to a TNW.

2.2 STATE OF CALIFORNIA

State regulations that apply to the CACPA are discussed in this section.

2.2.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA) is a statute that requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed activities. The purpose of the CEQA process is to identify the ways that environmental damage can be avoided or significantly reduced; prevent significant, avoidable damage by requiring project changes either through the adoption of alternatives or imposition of mitigation measures; and disclose to the public the reasons why a governmental agency approved a project if that project has significant environmental impacts that cannot be mitigated to a less than significant level.

2.2.2 CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) provides the legal framework for the conservation and protection of species and their habitats that are identified as being endangered or threatened with extinction within California. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. Once listed, a species cannot be "taken" (i.e., killed, possessed, purchased, or sold) without proper authorization. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the California Department of Fish and Wildlife (CDFW) certifies that the incidental take is consistent with CESA (California Fish and Game (CFG) Code Section 2080.1[a]). For state-only listed species, Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for State listed threatened and endangered species if specific criteria are met. The City was issued an incidental take permit pursuant to Section 2081 through the approval of the MSCP Subarea Plan.

2.2.3 CALIFORNIA FISH AND GAME CODE

CFG Code Sections 1600 through 1603 regulate project activities within rivers, streams, lakes, and riparian habitat. CFGC Section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- Deposit debris, waste, or other materials that could pass into any river, stream, or lake.

CDFW can issue a Lake and Streambed Alteration Agreement (LSAA) for projects that substantially adversely affect CDFW jurisdictional resources. If the activity will not substantially adversely affect any CDFW jurisdictional resources, the entity may commence the activity without an LSAA.

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

2.2.4 PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act regulates water quality for project activities in California. Pursuant to the Porter-Cologne Water Quality Control Act, under Section 13000 et seq. of the California Water Code, the RWQCB issues Water Quality Certifications for project activities that fill or dredge within Wetland and Non-Wetland WoUS and WoS, including isolated waters – such as vernal pools – and other waters showing lack of connectivity to a TNW.

2.3 CITY OF SAN DIEGO Programs and Regulations

Development in natural areas is regulated through the City's Land Development Code. The City's Environmentally Sensitive Lands (ESL) regulations require that development is directed towards the least biologically sensitive areas. The development permit is recorded with the County recorder and runs with the land and protects sensitive resources remaining in the area post-development. All amendments to the CACPU must be consistent with the General Plan and the MSCP prior to adoption.

2.3.1 ENVIRONMENTALLY SENSITIVE LANDS

ESL include sensitive biological resources (e.g., MHPA), steep hillsides, coastal beaches, sensitive coastal bluffs, and 100-year floodplains. Mitigation requirements for sensitive biological resources

follow the requirements of the City's Biology Guidelines (2018b) as outlined in the San Diego Municipal Code (SDMC) ESL Regulations (Chapter 14, Article 3, Division 1). Impacts to biological resources within and outside the MHPA must comply with the City's ESL Regulations, which serve to implement standards and requirements of CEQA and the MSCP Subarea Plan.

The purpose of the ESL Regulations is to "protect, preserve and, where damaged, restore the ESL of San Diego and the viability of the species supported by those lands." The regulations require that development avoid impacts to certain sensitive biological resources as much as possible including but not limited to MHPA lands; wetlands and vernal pools in naturally occurring complexes; federal and state listed, non-MSCP Covered Species; and MSCP Narrow Endemic species. Furthermore, the ESL Regulations state that wetlands impacts should be avoided, and unavoidable impacts should be minimized to the maximum extent practicable. In addition to protecting wetlands, the ESL Regulations require that a buffer be maintained around wetlands, as appropriate, to protect wetland-associated functions and values. While a 100-foot buffer width is generally required in the coastal zone and recommended in areas outside the coastal zone, this width may be increased or decreased on a case-by-case basis in consultation with the City, CDFW, U.S. Army Corps of Engineers (USACE), and USFWS pursuant to the City's Biology Guidelines (2018b). Future development within the CACPA would be required to comply with all applicable City ESL Regulations.

In addition, future development must comply with the City's Steep Hillside Guidelines (2004) when "development is proposed on a site containing any portions with a natural gradient of at least 25 percent (25 feet of vertical distance for every 100 feet of horizontal distance) and a vertical elevation of at least 50 feet. The steep hillside regulations are also applicable if a portion of the site contains a natural gradient of at least 200 percent (200 feet of vertical distance for every 100 feet of horizontal distance) and a vertical elevation of at least 10 feet."

2.3.2 MULTIPLE SPECIES CONSERVATION PROGRAM

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

2.3.2.1 Multiple Species Conservation Program Subarea Plan

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

MSCP Subarea Plan and Implementing Agreement are applicable to development within the CACPA.

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

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

2.3.2.2 Multi-Habitat Planning Area

The MHPA is the area within the City from which the permanent MSCP preserve will be assembled and managed for its biological resources. The City's MHPA areas are defined by "baseline" maps, wherein development is limited based on the development area allowance of the OR-1-2 open space residential zone (1997a) and MSCP Subarea Plan requirements.

The MHPA consists of public and private lands, where much of the required 90 percent of lands has already been conserved or ensured for conservation by legal agreement (i.e., Cornerstone Lands). According to the City's MSCP Annual Report for 2023, over 97 percent of the required acreage has been conserved/ensured (2024b). Conserved lands shown on the SanGIS database can include lands that have been set aside for baseline conservation and or lands purchased for mitigation both within and outside of the MHPA. These lands may be owned by the City (i.e., dedicated lands) or other agencies, and may or may not show up on legally recorded documents such as final parcel maps as open space, conservation, or building restricted easements. In addition, they may or may not have associated covenant of easements, irrevocable offers to dedicate or have other legal restrictions associated with them.

In general, the allowable development area of a site within the OR-1-2 zone includes all portions of the site, bsoth developed and undeveloped, that occur outside of the MHPA. If this area is less than 25% of the total size of the site, then the development area would also include the amount of encroachment into the MHPA necessary to achieve development on 25% of the site. The location of any allowable development into the MHPA is required to be located in the least biologically sensitive area feasible and would be determined by the ESL present onsite. Should more than 25 percent encroachment be desired, an MHPA boundary line adjustment may be proposed. The City's MSCP Subarea Plan states that adjustments to the MHPA boundary line are permitted without the need to

amend the City's Subarea Plan, provided the boundary adjustment results in an area of equivalent or higher biological value. To meet this standard, the area(s) proposed for addition to the MHPA must meet the six functional equivalency criteria set forth in Section 5.4.2 of the Final MSCP Plan (1998). All MHPA boundary line adjustments require City discretionary approval and Wildlife Agencies concurrence.

In addition, in some cases at the community plan level or during a subsequent specific project review, some areas of the MHPA that were placed over legal development in 1997 may be able to process a MHPA boundary line correction (BLC) which is reviewed at the ministerial level. An MHPA correction will typically be considered by the City when it can be shown that there is a discrepancy between the adopted MHPA boundary and other mapping information (e.g., aerial photography, vegetation maps, topographic maps), which results in inclusion of existing developed areas in the MHPA due to the regional scale of the MHPA mapping.

For a MHPA correction to be supported by City staff, it must be clearly demonstrated that: 1) the proposed area to be corrected out was legally permitted prior to the adoption of the MSCP (March 1997); 2) no habitat, including wetlands, would be removed; 3) no buffer area (e.g., wetland buffer, wildlife corridor) would be impacted; and, 4) removing the area from the MHPA would not avert the applicant from having to otherwise comply with the City's MSCP Land Use Adjacency Guidelines.

For parcels located outside the MHPA, "there is no limit on the encroachment into sensitive biological resources, with the exception of wetlands, and listed non-covered species' habitat (which are regulated by State and federal agencies) and narrow endemic species." However, "impacts to sensitive biological resources must be assessed and mitigation, where necessary, must be provided in conformance" with the City's ESL Regulations and the City's Biology Guidelines (2018b).

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

MSCP Subarea Plan compliance is required by projects in and adjacent to the MHPA. MHPA compliance is considered a regulatory requirement with associated indirect impacts averted via the required compliance. Standard compliance measures are therefore included as discretionary permit requirements rather than in the CEQA Mitigation Monitoring and Reporting Plan and as project features for ministerial projects. Depending on the circumstances, some covered species-specific requirements (i.e., required conditions of coverage found in Appendix A of the MSCP Subarea Plan) may, however, be required to be included as CEQA mitigation measures.

Multiple Species Conservation Program Section 1.4

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

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

Roads and Utilities–Construction and Maintenance Policies

1) All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way, and disturbed areas, minimizing habitat fragmentation.
2) All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP Covered species, and wetlands. If avoidance is infeasible, mitigation will be required.
3) Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.
4) Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage. Environmental documents and mitigation monitoring and reporting programs covering such development must clearly specify how this will be achieved, and construction plans must contain all the pertinent information and be readily available to crews in the field. Training of construction crews and field workers must be conducted to ensure that all conditions are met. A responsible party must be specified.
5) Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.
6) Development of roads in canyon bottoms should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road must be designed to cross the shortest length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable. Fencing, grading, and plant cover should be provided where needed to protect and shield animals and guide them away from roads to appropriate crossings.
7) Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.
8) For the most part, existing roads and utility lines are considered a compatible use within the MHPA and, therefore, will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management Section 1.5 of the MSCP.

Fencing, Lighting, and Signage

1) Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the MHPA (e.g.,

use of chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats [e.g., vernal pools]).

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

Materials Storage

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

Mining, Extraction, and Processing Facilities

1) Mining operations include mineral extraction, processing and other related mining activities (e.g., asphaltic processing). Currently permitted mining operations that have approved restoration plans may continue operating in the MHPA. New or expanded mining operations on lands conserved as part of the MHPA are incompatible with MSCP preserve goals for covered species and their habitats unless otherwise agreed to by the wildlife agencies at the time the parcel is conserved. New operations are permitted in the MHPA if: 1) impacts have been assessed and conditions incorporated to mitigate biological impacts and restore mined areas; 2) adverse impacts to covered species in the MHPA have been mitigated consistent with the Subarea Plan; and 3) requirements of other City land use policies and regulations (e.g., Adjacency Guidelines, Conditional Use Permit) have been satisfied. Existing and any newly permitted operations adjacent to or within the MHPA shall meet noise, air quality and water quality regulation requirements, as identified in the conditions of any existing or new permit, in order to adequately protect adjacent preserved areas and covered species. Such facilities shall also be appropriately restored upon cessation of mining activities.
2) All mining and other related activities must be consistent with the objectives, guidelines, and recommendations in the MSCP plan, the City of San Diego's Environmentally Sensitive Lands Ordinance, all relevant long-range plans, as well as with the State Surface Mining and Reclamation Act (SMARA) of 1975.
3) Any sand removal activities should be monitored for noise impacts to surrounding sensitive habitats, and all new sediment removal or mining operations proposed in proximity to the MHPA, or changes in existing operations, must include noise reduction methods that take into consideration the breeding and nesting seasons of sensitive bird species.
4) All existing and future mined lands adjacent to or within the MHPA shall be reclaimed pursuant to SMARA. Ponds are considered compatible uses where they provide native wildlife and wetland habitats and do not conflict with conservation goals of the MSCP and Subarea Plan.

5) Any permitted mining activity including reclamation of sand must consider changes and impacts to water quality, water table level, fluvial hydrology, flooding, and wetlands and habitats upstream and downstream, and provide adequate mitigation.

Flood Control

1) Flood control should generally be limited to existing agreements with resource agencies unless demonstrated to be needed based on a cost benefit analysis and pursuant to a restoration plan. Floodplains within the MHPA, and upstream from the MHPA if feasible, should remain in a natural condition and configuration in order to allow for the ecological, geological, hydrological, and other natural processes to remain or be restored.
2) No berming, channelization, or man-made constraints or barriers to creek, tributary, or river flows should be allowed in any floodplain within the MHPA unless reviewed by all appropriate agencies, and adequately mitigated. Review must include impacts to upstream and downstream habitats, flood flow volumes, velocities and configurations, water availability, and changes to the water table level.
3) No riprap, concrete, or other unnatural material shall be used to stabilize river, creek, tributary, and channel banks within the MHPA. River, stream, and channel banks shall be natural, and stabilized where necessary with willows and other appropriate native plantings. Rock gabions may be used where necessary to dissipate flows and should incorporate design features to ensure wildlife movement.

Multi-Habitat Planning Area Land Use Adjacency Guidelines

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

Drainage:

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

materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.

Toxics:

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

Lighting:

3) Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.

Noise:

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

Barriers:

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

Invasives:

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

Brush Management:

7) New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zone 2 may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. Brush management zones will not be greater in size than is currently required by the SDMC regulations. The amount of woody vegetation clearing shall not exceed 50 percent of the

vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards (i.e., to avoid the nesting season and preferentially remove non-natives over natives) and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the Zone 2 area will be the responsibility of a homeowners association or other private party.

Grading/Land Development

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

Framework Management Plan Section 1.5

The MSCP Subarea Plan Framework Management Plan, included in Section 1.5.1 of the City's MSCP Subarea Plan, sets management goals and objectives that apply to the CACPA. Compliance with this section is to achieve the overarching MSCP goal to maintain and enhance biological diversity in the region and conserve viable populations of endangered, threatened, and key sensitive species and their habitats, thereby preventing local extirpation and ultimate extinction, and minimizing the need for future listings, while enabling economic growth in the region. The proposed College Area CPU policies are consistent with MSCP framework management plan objectives. Further, all individual projects within the CACPA would undergo project review to ensure conformance with all MSCP policies.

To ensure that the goals of the MHPA is attained and fulfilled, management objectives for the MHPA are as follows:

1) To ensure the long-term viability and sustainability of native ecosystem function and natural processes throughout the MHPA.
2) To protect the existing and restored biological resources from intense or disturbing activities within and adjacent to the MHPA while accommodating compatible public recreational uses.
3) To enhance and restore, where feasible, the full range of native plant associations in strategic locations and functional wildlife connections to adjoining habitat in order to provide viable wildlife and sensitive species habitat.
4) To facilitate monitoring of selected target species, habitats, and linkages to ensure long-term persistence of viable populations of priority plant and animal species and to ensure functional habitats and linkages.
5) To provide for flexible management of the preserve that can adapt to changing circumstances to achieve the above objectives.

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

Mitigation

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

Restoration

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

Public Access, Trails, and Recreation

Priority 1:

1) Trails will be the minimum width necessary to preserve corridors (approximately two to four feet wide), will utilize native soil when it provides good draining capabilities, and will out-slope 3-8% to prevent erosion.
2) Provide sufficient signage to clearly identify public access to the MHPA. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. Use appropriate type of barrier based on location, setting and use. For example, use chain link or cattle wire to direct wildlife movement, and natural rocks/boulders or split rail fencing to direct public access away from sensitive areas. Lands acquired through mitigation may preclude public access to satisfy mitigation requirements.
3) Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of urban land uses adjacent to the MHPA or the seam between land uses (e.g., agriculture/habitat), and follow existing dirt roads as much as possible rather than entering habitat or wildlife movement areas. Avoid locating trails between two different habitat types (ecotones) for longer than necessary due to the typically heightened resource sensitivity in those locations.
4) In general, avoid paving trails unless management and monitoring evidence shows otherwise. Clearly demarcate and monitor trails for degradation and off-trail access and use. Provide trail repair/maintenance, as needed. Undertake measures to counter the effects of trail erosion including the use of stone or wood crossjoints, edge plantings of native grasses, and mulching of the trail.
5) Minimize trail widths to reduce impacts to critical resources. For the most part, do not locate trails wider than four feet in core areas or wildlife corridors. Exceptions are for areas where necessary to safely accommodate multiple uses or disabled access. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.
6) Off-road or cross-country vehicle activity is an incompatible use in the MHPA, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical or allow to regenerate.
7) Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted, restrain pets on leashes.

8) Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.
9) Maintain equestrian trails on a regular basis to remove manure (and other pet feces) from the trails and preserve system in order to control cowbird invasion and predation. Design and maintain trails where possible to drain into a gravel bottom or vegetated (e.g. grass-lined) swale or basin to detain runoff and remove pollutants.

Litter/Trash and Materials Storage

Priority 1:

1) Remove litter and trash on a regular basis. Post signage to prevent and report littering in trail and road access areas. Provide and maintain trash cans and bins at trail access points.
2) Impose penalties for littering and dumping. Fines should be sufficient to prevent recurrence and also cover reimbursement of costs to remove and dispose of debris, restore the area if needed, and to pay for enforcement staff time.
3) Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.
4) Keep wildlife corridor undercrossings free of debris, trash, homeless encampments, and all other obstructions to wildlife movement.

Priority 2:

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

Adjacency Management Issues

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

Priority 1:

1) Enforce, prevent, and remove illegal intrusions into the MHPA (e.g., orchards, decks, etc.) on an annual basis, in addition to complaint basis.
2) Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction, or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues.
3) Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.

Invasive Exotics Control and Removal

Priority 1:

1) Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, as well as on prevention methods, to visitors and

adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.

2) Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available. If possible, it is recommended that removal begin upstream and/or upwind and move downstream/downwind to control reinvasion. Priorities for removal should be based on invasive species' biology (time of flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell's vireo. Avoid removal activities during the reproductive seasons of sensitive species and avoid/minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment, and any other potentially harmful or impact-causing methodologies, to remove the plants may require some level of environmental or biological review and/or supervisions to ensure against impacts to sensitive species.

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 and gnatcatcher. Avoid removal activities during the reproductive seasons of sensitive species and avoid/ minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment and any other potentially harmful or impact-causing methodologies to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.

Priority 2:

1) If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal. Utilize trained volunteers to monitor and remove exotic species as part of a neighborhood, community, school, or other organization's activities program. If done on a volunteer basis, prepare and provide information on methods and timing of removal to staff and the public if requested. Assess 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.
2) Conduct an assessment of the need for cowbird trapping in each area of the MHPA where cattle, horses, or other animals are kept, as recommended by the habitat management technical committee in coordination with the wildlife agencies.
3) If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.

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

Flood Control

The following management directives are in addition to the general planning policies and guidelines outlined in Section 1.5.2.

Priority 1:

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

Priority 2:

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

Multiple Species Conservation Program Subarea Plan-Urban Area

Within the MSCP Subarea Plan, the CACPU area is identified respectively within Section 1.2.3 and 1.5.7 as being in an “Urban Area” and as containing “Urban Habitat Lands”. The urban habitat areas within the City’s MHPA consist mainly of vernal pool areas, urbanized canyons and stream areas, and associated hillsides which support native habitats and species and promote wildlife movement. Section 1.5.7 describes the Overall Management Policies and Directives for Urban Habitats as follows:

1) Where MHPA is incorporated as part of natural resource park, the City Park and Recreation Department shall govern management of those lands in accordance with a Natural Resource Management Plan (NRMP). Current NRMPs in the Urban Lands include: Mariam Bear NRMP, Tecolote Canyon Natural Park Natural Resource. Management Plan, Mission Bay Park NRMP, First San Diego River Improvements Project, and the Los Peñasquitos Canyon Preserve NRMP.
2) All urban lands that are designated as MHPA shall be managed according to the Subarea Plan general policies and directives.

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

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

Covered species found in the urban habitat lands include those known to be in the CACPU area or those having a high to moderate potential to be found in the CACPU area are analyzed in Section 3 and 4. Covered plant species that have been reported within the CACPA or have a moderate-to-high potential for occurrence within the CACPA include: Del Mar manzanita, San Diego barrel cactus. wart-stemmed ceanothus, and willowy monardella.

Covered wildlife species that have been reported within the CACPA or have a moderate-to-high potential for occurrence within the CACPA include: orange-throated whiptail, coast horned lizard, Cooper's hawk, southern California rufous-crowned sparrow, northern harrier, American peregrine falcon, coastal California gnatcatcher, least Bell's vireo, western bluebird, and Canada goose. Note that all MSCP covered species have Area Specific Management Directives (ASMDs) that are conditions of coverage under the MSCP program (see Appendix A of the MSCP Subarea Plan). Many of these relate to MHPA land management activities; however, some must be addressed during project processing. All future projects within the CACPA will be assessed for compliance with MSCP policies, including ASMDs, during project permitting.

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

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

Because the majority of natural areas within the CACPA are addressed within the City's MHPA, CACPU policies foster MHPA Management Objectives. Policies currently included provide for

restoration of habitat, removal of invasive plant species, avoiding impacts to natural habitat, and protection of drainages.

2.3.3 VERNAL POOL HABITAT CONSERVATION PLAN

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

In addition to authorizing take of sensitive vernal pool species, the VPHCP serves to expand the City's MHPA (see Section 4.1.2 below), with focus on management and conservation of vernal pool habitats and their associated species, particularly the covered species of the VPHCP. The VPHCP is comprised of three Planning Units (PUs); north, central, and south. The CACPA is located within the central PU of the VPHCP. No vernal pool resources are mapped within the CACPA, and undeveloped areas are generally canyons that are not suitable for vernal pools.

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

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

2.3.4 GENERAL PLAN

The City's General Plan presents goals and policies for biological resources in the Conservation Element (2024a). Relevant excerpts from this element that may be applicable to the CACPA are

included in Table 2. The CACPU will incorporate the City's current General Plan Conservation Element policies and goals.

Table 2. City of San Diego General Plan Conservation Element Policies Relating to Biological Resources within the College Area Community Planning Area

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

Policy	Description
CE-C.4	Manage wetland areas as described in Section H, Wetlands, for natural flood control and preservation of landforms.
CE-C.6	Implement watershed management practices designed to reduce runoff and improve the quality of runoff discharged into coastal waters.
CE-D.3	Continue to participate in the development and implementation of watershed management plans. a. Control water discharge in a manner that does not reduce reasonable use by others, damage important native habitats and historic resources, or create hazardous conditions (e.g., erosion, sedimentation, flooding and subsidence). b. Protect reservoir capacity from sedimentation. c. Improve and maintain drinking water quality and urban runoff water quality through implementation of Source Water Protection Guidelines for New Development. d. Improve and maintain urban runoff water quality through implementation of storm water protection measures (see also Urban Runoff Management, Section E). e. Encourage proper sustainable agricultural practices (if applicable) such as tillage, use of grass filter strips, runoff detention basins, and organic farming.
CE-E.1	Continue to develop and implement public education programs. a. Involve the public in addressing runoff problems associated with development and raising awareness of how an individual's activities contribute to runoff pollution. b. Work with local businesses and developers to provide information and incentives for the implementation of BMPs for pollution prevention and control. c. Implement watershed awareness and water quality educational programs for City staff, community planning groups, the general public, and other appropriate groups.
CE-E.2	Apply water quality protection measures to land development projects early in the process–during project design, permitting, construction, and operations–in order to minimize the quantity of runoff generated on site, the disruption of natural water flows and the contamination of storm water runoff. a. Increase on-site infiltration, and preserve, restore, or incorporate natural drainage systems into site design. b. Direct concentrated drainage flows away from the MHPA and open space areas. If not possible, drainage should be directed into sedimentation basins, grassy swales, or mechanical trapping devices prior to draining into the MHPA or open space areas. c. Reduce the amount of impervious surfaces through selection of materials, site planning, and street design where possible. d. Increase permeable areas for new trees and restore spaces that have been paved, focused in areas with the greatest needs. e. Increase the use of plants in drainage design. f. Maintain landscape design standards that minimize the use of pesticides and herbicides g. Avoid development of areas particularly susceptible to erosion and sediment loss (e.g., steep slopes) and, where impacts are unavoidable, enforce regulations that minimize their impacts. h. Apply land use, site development, and zoning regulations that limit impacts on, and protect the natural integrity of topography, drainage systems, and water bodies. i. Enforce maintenance requirements in development permit condition.

Policy	Description
	j. Increase the use of green infrastructure, both at watershed scale and site-specific locations.
CE-E.3	Require contractors to comply with accepted storm water pollution prevention planning practices for all projects. a. Minimize the amount of graded land surface exposed to erosion and enforce erosion control ordinances. b. Continue routine inspection practices to check for proper erosion control methods and housekeeping practices during construction.
CE-E.4	Continue to participate in the development and implementation of Watershed Management Plans for water quality and habitat protection.
CE-E.5	Ensure that City departments continue to use "Best Practice" procedures so that water quality objectives are routinely implemented. a. Incorporate water quality objectives into existing regular safety inspections. b. Follow BMPs and hold training sessions to ensure that employees are familiar with those practices. c. Educate City employees on sources and impacts of pollutants on urban runoff and actions that can be taken to reduce these sources. d. Ensure that contractors used by the City are aware of and implement urban runoff control programs. e. Serve as an example to the community-at-large.
CE-E.6	Continue to encourage "Pollution Control" measures to promote the proper collection and disposal of pollutants at the source, rather than allowing them to enter the storm drain system. a. Promote the provision of used oil recycling and/or hazardous waste recycling facilities and drop-off locations. b. Review plans for new development and redevelopment for connections to the storm drain system. c. Follow up on complaints of illegal discharges and accidental spills to storm drains, waterways, and canyons.
CE-E.7	Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.
CE-G.1	Preserve natural habitats pursuant to the MSCP and VPHCP, preserve rare plants and animals to the maximum extent practicable, and manage all City-owned native habitats to ensure their long-term biological viability. a. Educate the public about the impacts invasive plant species have on open space. b. Remove, avoid, or discourage the planting of invasive plant species. c. Pursue funding for removal of established populations of invasive species within the MHPA and open space.
CE-G.2	Prioritize, fund, acquire, and manage the MHPA and open spaces that preserve important ecological resources and provide habitat connectivity.
CE-G.3	Implement the conservation goals/policies of the City's MSCP Subarea Plan and VPHCP, such as providing connectivity between habitats and limiting recreational access and use to appropriate areas.

Policy	Description
CE-G.4	Protect important ecological resources when applying floodplain regulations and development guidelines.
CE-G.5	Promote aquatic biodiversity and habitat recovery by reducing hydrological alterations, such as grading a stream channel.
CE-G.6	Utilize programs, such as Biodiverse SD, to preserve habitat and open space in core biological resource areas, mitigating impacts of new development while maintaining conservation goals.
CE-G.7	Preserve the network of habitat and open space through delineation of core biological resource areas identified in the Multi-Habitat Planning Area (MHPA) consistent with the City's Biodiverse SD program, inclusive of the Vernal Pool Habitat Conservation Plan (VPHCP), and Multiple Species Conservation Plan (MSCP), which acts as the natural communities conservation program.
CE-H.1	Use a watershed planning approach to preserve and enhance wetlands.
CE-H.2	Facilitate public-private partnerships that improve private, federal, state and local coordination through removal of jurisdictional barriers that limit effective wetland management.
CE-H.3	Seek state and federal legislation and funding that support efforts to research, classify, and map wetlands including vernal pools and their functions, and improve restoration and mitigation procedures.
CE-H.4	Support the long-term monitoring of restoration and mitigation efforts to track and evaluate changes in wetland acreage, functions, and values.
CE-H.6	Support research and demonstration projects that use created wetlands to help cleanse urban and storm water runoff, where not detrimental to natural upland and wetland habitats.
CE-H.8	Encourage site planning that maximizes the potential biological, historic, hydrological, climate resilience, and land use benefits of wetlands.
CE-H.9	Implement a "no net loss" approach to wetlands conservation in accordance with all city, state, and federal regulations.
CE-J.1	Develop, nurture, and protect a sustainable urban/community forest. a. Identify City lands and spaces that need trees and identify ways to increase permeable areas for new trees, focused in areas with the greatest needs. b. Seek resources and take actions needed to plant, care for, and protect trees in the public right-of-way and parks and those of significant importance in our communities. Prioritize implementation in areas with the greatest needs. c. Plant large canopy shade trees, where appropriate and with consideration of habitat and water conservation goals, in order to maximize environmental benefits. Prioritize implementation in areas with the greatest needs. d. Seek to retain significant and mature trees. e. Provide forest linkages to connect and enhance public parks, plazas, recreation and open space areas (see also Mobility Element, Policies ME-A.6 and ME-A.7, and Recreation Element, Policy RED.6).
CE-J.2	Include community street tree master plans in community plans. a. Prioritize community streets for street tree programs. b. Identify the types of trees proposed for those priority streets by species (with acceptable alternatives) or by design form.

Policy	Description
	c. Integrate known protected trees and inventory other trees that may be eligible to be designated as a protected tree.
CE-J.3	Develop community plan street tree master plans during community plan updates in an effort to create a comprehensive citywide urban forest master plan (see Conservation Element Policy CE-J.1).
CE-J.4	Continue to require the planting of trees through the development permit process. a. Consider tree planting as mitigation for air pollution emissions, storm water runoff, and other environmental impacts as appropriate.
CE-J.5	Support public outreach efforts to educate City staff, the business community, and the general public on the environmental and economic benefits of trees.

2.4 COLLEGE AREA COMMUNITY PLAN POLICIES

The adopted College Area Community Plan presents goals and policies for biological resources which are consistent with all City regulations and policies and goals of the General Plan. The General Plan is the foundation for all land use decisions in San Diego, while the College Area Community Plan is a part of the Land Use element of the General plan and covers the specific geographic boundary of the College Area. The regulations covered above are applicable within the CACPA and are discussed in further detail within Sections 3 and 4 of this document. The proposed project is to update this community plan, so the project would not conflict with the existing community plan.

3 Methods

This biological resources report was prepared to support a programmatic community plan. Because this is a general/programmatic-level analysis, existing databases and literature were used exclusively in preparation of the report per lead agency direction. Please note that no project-specific surveys or mapping were performed as part of this effort, and no focused species surveys or comprehensive species lists were prepared. Future projects located within the CACPA will be required to undergo future site-specific environmental review, including site-specific biological surveys and project-specific impact analysis for projects that may impact biological resources. At that point, field surveys and a more detailed biological impact analysis will be performed at the individual project level.

As such, this discussion is intended to give an overview of biological resources that occur, or may occur, within the CACPA; it is not intended to be exhaustive of all habitats or species in the area.

3.1 GENERAL BIOLOGICAL DATABASE AND LITERATURE REVIEW

Rocks Biological Consulting (RBC) conducted reviews of biological resource databases and of pertinent literature to inform the discussions and conclusions of this report. While anecdotal and citizen science data can provide additional information on biological resources throughout the community planning area, the quality and reliability of this data is not consistent.

The sources for the literature and database review included the reliable, peer-reviewed data included in the following resources:

- California Department of Fish and Wildlife (CDFW) Natural Diversity Data Base (CNDDB)
- California Native Plant Society (CNPS) Online Rare Plan Inventory
- Consortium of California Herbaria online records of plant occurrences
- Rare plants of San Diego County (Reiser 2001)
- CNPS Vegetation Program VegCamp data in the online Manual of California Vegetation
- Manual of California Vegetation (Sawyer and Evens 2009)
- U.S. Fish and Wildlife Service (USFWS) species and critical habitat databases (USFWS 2020 b,c,d)
- Multiple Species Conservation Program (MSCP) (County of San Diego Final MSCP Program; and City of San Diego MSCP Subarea Plan)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2020a)
- USFWS National Wetlands Inventory
- San Diego County Special Animals List (2014)
- San Diego County Bird Atlas (Unitt 2004)
- San Diego County Mammal Atlas (Tremor, Stokes, Spencer, et al. 2017)

- San Diego Geographic Information Source (SanGIS) Vegetation Information in the San Diego Region (2012, 2015; data compiled 1992)
- City Vernal Pool Habitat Conservation Plan (VPHCP)
- San Diego Association of Governments San Diego Management and Monitoring Program

3.2 SOURCES REVIEWED TO DETERMINE HABITATS, FLORA, AND FAUNA

In addition to the use of the above generalized databases and literature sources, several College Area or City-wide projects and their CEQA review information were utilized to further verify and refine information about the community plan area habitats, flora, fauna, and their relative sensitivity. Contributing projects include: College View Project (Recon, 2020a) and the College Area Sewer and AC Water Project (Recon, 2020b).

3.2.1 VEGETATION COMMUNITIES

The vegetation community mapping for this report was primarily sourced from the San Diego Geographic Information Source (SanGIS 2012) digital file for the MSCP. Where more current or detailed vegetation mapping exists from sources listed Section 2.2 above, the data was reviewed and incorporated into the vegetation discussion to provide further detail and updated information on the College Area biology. Aerial analysis of the CACPA and the 1995 SanGIS data set were used to mitigate any data gaps in the 2012 SanGIS vegetation mapping. Additionally, some vegetation communities were lumped where appropriate and biologically sound, e.g., 'coastal sage scrub' was lumped with 'Diegan coastal sage scrub' for clearer resource representation.

Vegetation community descriptions in this report follow Oberbauer et al. (2008) with habitat sensitivity tier categories derived from wetland and upland mitigation ratio tables in the City's Biology Guidelines (2018b) and review of CNPS vegetation information available through VegCamp and the Manual of California online (CNPS 2020). Field surveys were not conducted as part of this BRR preparation; however, as noted above, relevant survey data was used to inform this report.

3.2.2 SENSITIVE PLANTS

Locations of sensitive plant species within the CACPA discussed herein were primarily sourced from the CNDDB (CDFW 2025f) with additional information gleaned from documents listed in Section 2.2, above, and 1992 MHPA vegetation maps, which include MSCP species codes with known spatial locations. The sensitivity status of plants is based on federal and state endangered, threatened, and sensitive status lists, as well as local sensitivity designations such as the MSCP covered species and CNPS (CNPS 2025) rare species.

Common and scientific names for plant species are those presented in the CDFW CNDDB State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2025b).

3.2.3 SENSITIVE WILDLIFE

The locations of sensitive wildlife species were sourced from the CNDDB (CDFW 2025f) and the USFWS species occurrence database (USFWS 2020b-c). The sensitivity status information for animals is based on federal and state endangered, threatened, and sensitive status lists, as well as

local sensitivity designated by the MSCP covered species list (i.e., the CDFW Special Animals List (CDFW 2025e) and animals mentioned in the City Biology Guidelines (2018b).

Common and scientific names for wildlife species are those presented in the CDFW CNDDB State and Federally Listed Endangered and Threatened Animals of California (CDFW 2025b).

4 Existing Conditions

The existing conditions for the CACPA presented in this section are based on the most current data available at the time this report was written from the sources listed in Section 3.1, above. No field surveys were conducted because this BRR is intended to provide a programmatic-level analysis of biological resources within the CACPA for the CACPU, as it is a programmatic document. All future proposed projects within the CACPA will be required on a case-by-case basis to provide a detailed evaluation of existing biological resources during the project permitting process.

4.1 PLAN AREA DESCRIPTION

This section provides a brief description of the topography, land uses, soil types, and vegetation communities within the CACPA.

4.1.1 TOPOGRAPHY

The CACPA has varying elevations from approximately 85 feet above mean sea level (AMSL) in the western portion of the CACPA near the intersection of Montezuma Road and Fairmount Avenue, and up to approximately 545 feet AMSL in the western portion of the plan area near 73rd Street. The majority of the CACPA is developed, primarily with residential housing. Topography generally increases moving east and varies acutely between neighborhoods within spans of 100 feet. Natural, undeveloped areas occur adjacent to residential development in the western portion of the CACPA and south of I-8. Current aerial imagery of the CACPA is presented in Figure 3.

The CACPA is located within the Murray Reservoir twelve-digit Hydrologic Unit (HU; 180703040704), the Lower San Diego River ten-digit HU (1807030407), and the San Diego eight-digit HU (18070304) as mapped by USGS (2025). The Murray Reservoir watershed generally drains east towards the San Diego River and comprises approximately 10,709 acres (USGS 2025). Specifically, the CACPA lies within the San Diego HU and the Lower San Diego (907.11) Hydrologic Area according to the Regional Water Quality Control Board (RWQCB) San Diego Basin Plan Map (Figure 4; RWQCB 2016).

4.1.2 LAND USE

The CACPA includes a mixture of land uses, including but not limited to SDSU and affiliated development, residential development of various densities, commercial and industrial businesses, parks and open space, and various transportation structures (e.g., arterial roadways and public transportation facilities).

4.1.3 SOILS

The USDA NRCS (USDA 2020) identifies 17 soil types within the CACPA. The soil series present include Diablo-Urban land complex, Friant rocky fine sandy loam, Gaviota fine sandy loam, Huerhuero-Urban land complex, made land, Olivenhain cobbly loam, Redding cobbly loam, riverwash, terrace escarpments, Tujunga sand, and urban land. Clay soil types known to support vernal pools are not present in the CACPA.

FIGURE 3. AERIAL PHOTOGRAPH

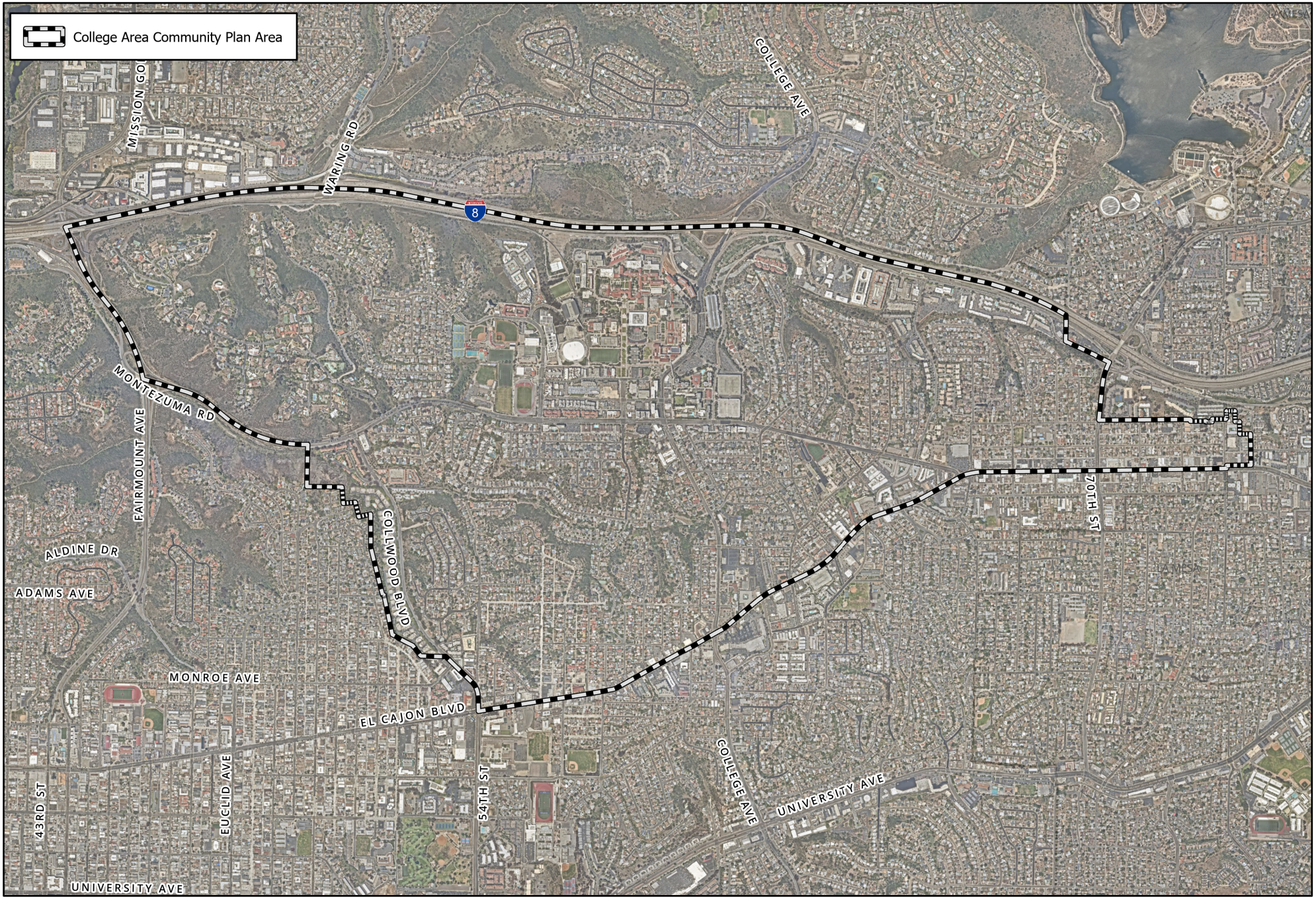


Figure 3
Aerial Photograph

Date: 9/3/2025 Path: L:\GIS\PGIS\Community Planning\College\Plan_Update\MXDs\Draft Plan Maps\Addendum Aerial Photograph.aprx

FIGURE 4. HYDROLOGY

GRANTVILLE
ALLIED GARDENS
DEL CERRO
SAN DIEGO STATE UNIVERSITY
COLLEGE AREA
KENSINGTON
TALMADGE
COLINA DEL SOL
EL CERRITO
ROLANDO
LA MESA

Mission Gorge Rd
Waring Rd
Del Cerro Blvd
College Ave
Lake Murray
Baltimore Dr
Alvarado Rd
Lake Murray Blvd
Reservoir Dr
55th St
Montezuma Rd
Fairmount Ave
Collwood Blvd
63rd St
70th St
73rd St
El Cajon Blvd
Rolando Blvd
Monroe Ave
47th St
50th St
54th St
University Ave

SAN DIEGO HYDROLOGIC UNIT
Lower San Diego Hydrologic Area

PUEBLO SAN DIEGO HYDROLOGIC UNIT
San Diego Mesa Hydrologic Area

College Area Community Plan Boundary
Hyrologic Unit (HU)
Hydrologic Area (HA)

National Wetlands Inventory (NWI)
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Riverine

FIGURE 4

Potentially Jurisdictional Resources

COLLEGE AREA
COMMUNITY PLAN UPDATE

ROCKS BIOLOGICAL CONSULTING

0 700 1,400 FEET

N

Aerial Photo: USDA NAIP 2022

4.2 VEGETATION COMMUNITIES/LANDCOVER TYPES

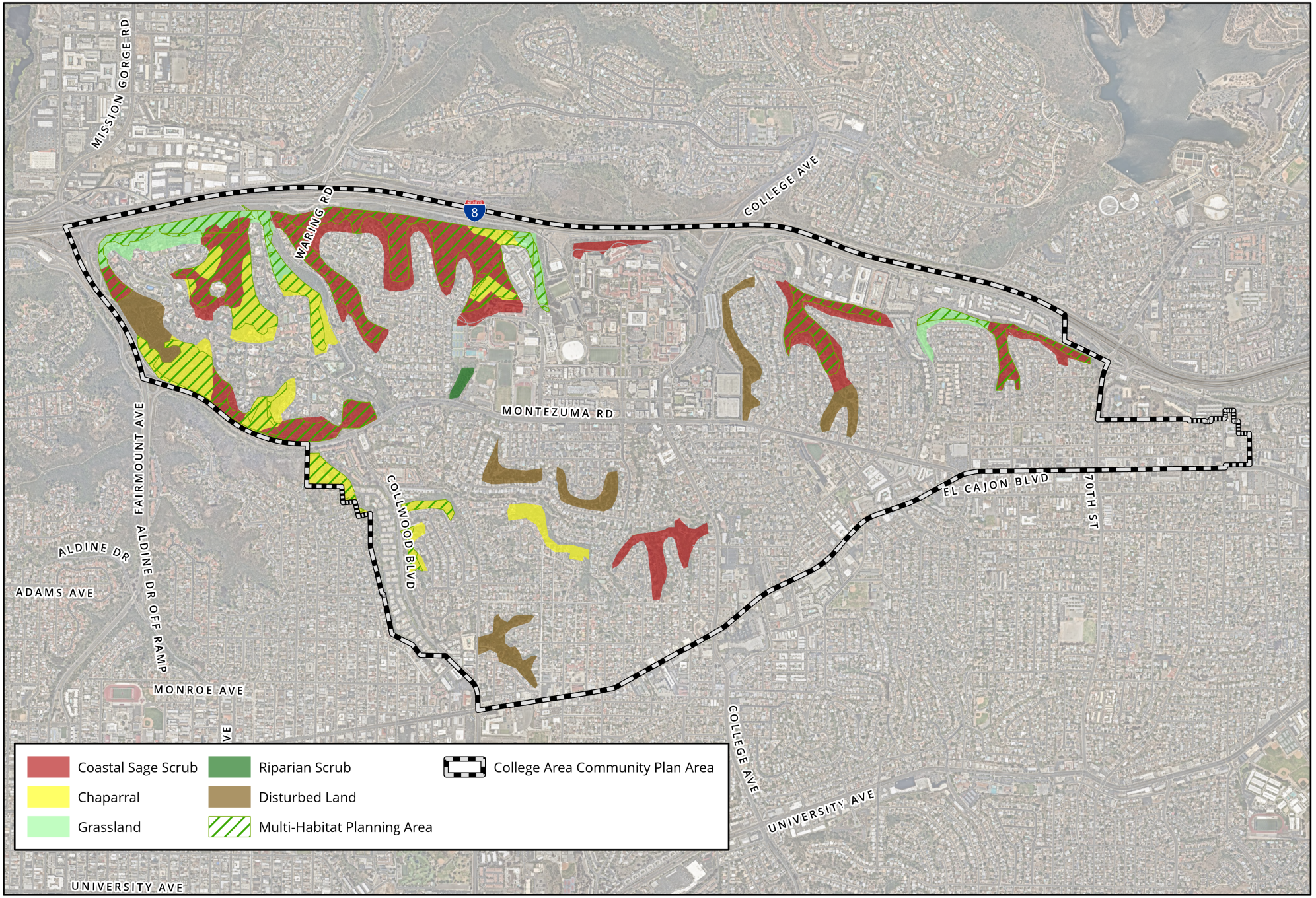
The CACPA supports 12 generalized vegetation communities/land cover types based on a review of available data sources described in Section 3.2. The approximate acreages of these vegetation communities and land cover types are presented in Table 3, and their spatial distributions within the CACPA are presented on Figure 5; open space and conserved lands are shown on Figure 6.

Table 3. Vegetation Communities and Land Cover Types in the College Area Community Plan Update Area

Vegetation Community or Land Cover Type	Acreage[1]	Tier[3]
Wetland[2]		
Southern Cottonwood-Willow Riparian Forest	5.1	N/A
Southern Riparian Scrub	2.3	N/A
Subtotal Wetland Communities	*7.4*	-
Sensitive Upland		
Chaparral	7.0	IIIA
Chamise Chapparal	32	IIIA
Diegan Coastal Sage Scrub	181.4	II
Maritime Succulent Scrub	18.3	I
Non-Native Grassland	12.1	IIIB
Southern Maritime Chaparral[3]	37.5	I
Subtotal Sensitive Upland Communities	*288.3*	-
Other Uplands[4]		
Disturbed Land	38.5	IV
Eucalyptus Woodland	2.2	IV
Non-Native Vegetation	5.4	IV
Urban/Developed	1582.5	IV
Subtotal Other Uplands	*1628.6*	-
TOTAL	*1924.3*	-

[1]Rounded to the nearest 0.1 acre.
[2]Wetland here does not imply/define U.S. Army Corps of Engineers "wetlands or waters of the U.S." All wetlands listed considered sensitive habitats per City's Biology Guidelines (2018b). City wetlands typically support wetland plant species but also include areas lacking wetland vegetation due to non-permitted filling of previously existing wetlands.
[3]Mitigable subtypes (e.g., Southern Maritime Chaparral) will be further distinguished with applicable site-specific surveys. Tiers and habitats are per City's Biology Guidelines (2018b)—minimum ratio given only because ratios are dependent on whether the impacts and mitigation site are inside or outside of the MHPA.
[4]May be sensitive if they support sensitive species.

FIGURE 5. VEGETATION COMMUNITIES AND LAND COVER TYPES

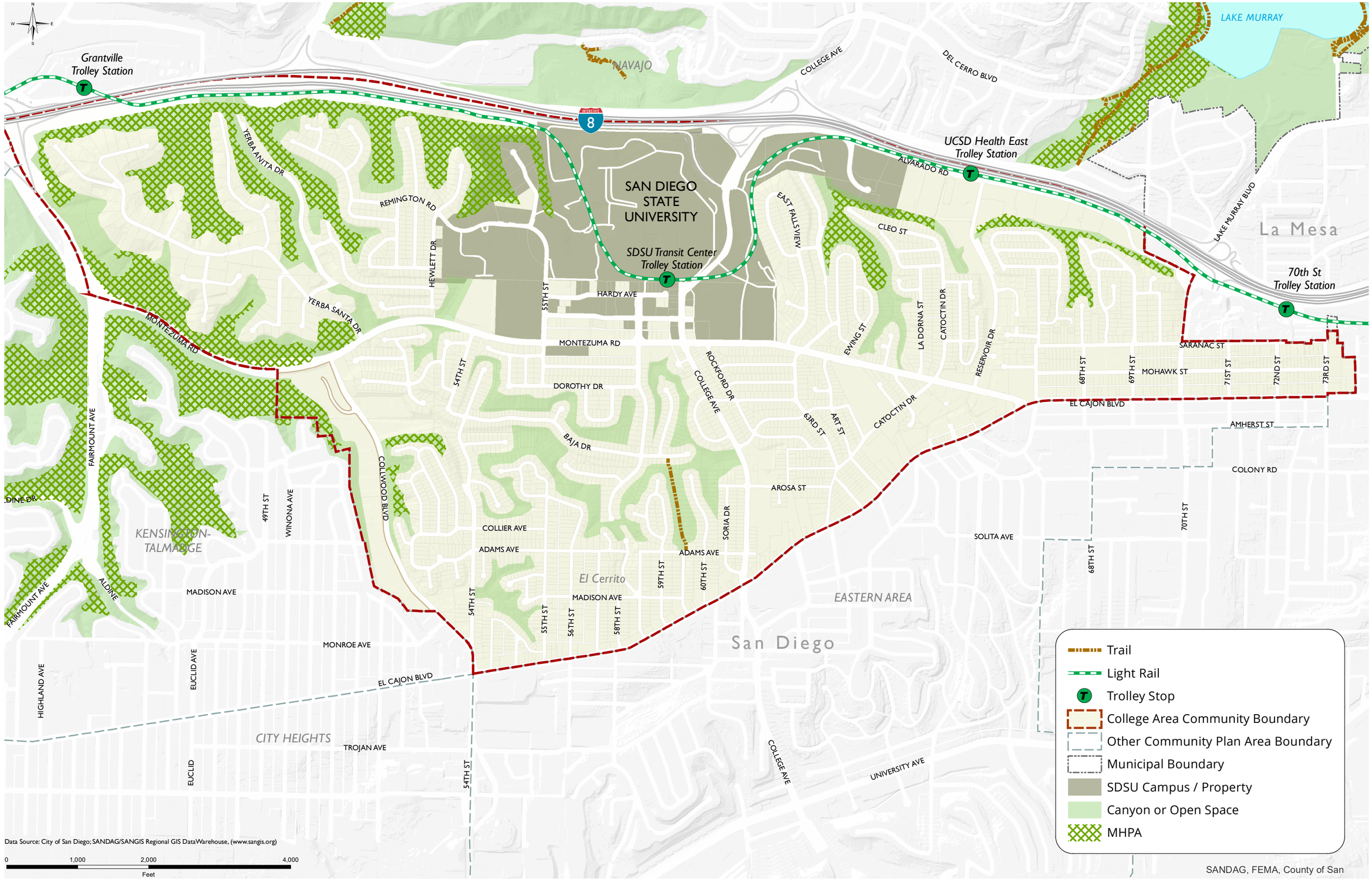


Date: 9/9/2025 Path: L:\GIS\PGIS\Community Planning\College\Plan_Update\MXD\ci\Draft Plan Maps\Addendum MHPA and Vegetation.aprx

Figure 5
Vegetation Communities and Land Cover Types

FIGURE 6. CONSERVED LANDS AND OPEN SPACE

Figure 6: Open Spaces and Multi-Habitat Planning Area



4.2.1 WETLAND COMMUNITIES

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

4.2.1.1 Southern Cottonwood-Willow Riparian Forest

Southern cottonwood-willow riparian forest is a general riparian community composed of winter-deciduous trees often found along streams and rivers. Cottonwoods (*Populus* spp.) and willows (*Salix* spp.) dominate the tree stratum. The understory is composed of shrubby willows.

Two small sections of southern cottonwood-willow riparian forest are mapped alongside College Avenue near its intersection of the northern edge of the CACPA.

4.2.1.2 Southern Riparian Scrub

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

A single patch of southern riparian scrub occurs west of recreational fields associated with SDSU and north of Montezuma Road within the CACPA.

4.2.2 SENSITIVE UPLAND COMMUNITIES

Upland vegetation communities are found in dry landforms and do not occur in wetland situations (e.g., inundated or containing saturated soils). In the CACPA, sensitive upland vegetation communities consist of scrub, chaparral, grasslands. These vegetation communities are generally located in open space between dense groupings of residential developments and along roadsides. The majority of grasslands within the CACPA are located adjacent to the I-8 freeway. The respective sensitive upland vegetation types mapped within the CACPA are described below.

4.2.2.1 Chapparal

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

In the CACPA, chaparral is mapped in only one south-central patch located between neighborhood blocks. This generalized habitat may also be considered southern mixed or maritime chaparral at the time site specific surveys are performed.

4.2.2.2 Chamise Chapparal

Chamise chaparral is a one- to three-meters tall chapparal vegetation community overwhelmingly dominated by chamise (*Adenostoma fasciculatum*) with little to no herbaceous understory (Oberbauer et al. 2008). Associated species of this community may include ceanothus (*Ceanothus* spp.), manzanita (*Arctostaphylos* spp.), laurel sumac (*Malosma laurina*), scrub oak (*Quercus dumosa*), pipevine (*Aristolochia* spp.), and bush poppy (*Dendromecon rigida),* although they contribute little to cover. This vegetation is adapted to repeated fires by stump sprouting and mature stands are densely interwoven with very little herbaceous understory or litter.

Chamise chaparral is mapped in the western portion of the CACPA north of Montezuma Road in sloping open spaces.

4.2.2.3 Diegan Coastal Sage Scrub

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

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

Within the CACPA, Diegan coastal sage scrub (including Baccharis-dominated, coastal, and disturbed forms) is one of the most abundant natural vegetation communities. It is found within open spaces between residential development and within undeveloped lands adjacent to roadways. Most sections of Diegan coastal sage scrub occurring within the CACPA are preserved within the City's MHPA.

4.2.2.4 Maritime Succulent Scrub

Maritime succulent scrub, rare subtype of Diegan coastal sage scrub, is a low open scrub community that is dominated by a mixture of stem and leaf succulent species and drought deciduous species that also occur within sage scrub communities. This vegetation community occurs on thin, rocky or sandy soils, on steep (west or southern) slopes of coastal headlands and bluffs. Maritime succulent scrub is generally restricted to the reach of the coastal fog belt and extends north to south from about Torrey Pines to southern Baja with island sub-types on San Clemente and Catalina islands. The dominant species typically found within this vegetation

community include coast barrel cactus (*Ferocactus viridescens*), velvet cactus (*Bergerocactus emoryi*), prickly pear cactus (*Opuntia littoralis*), cliff spurge (*Euphorbia misera*), dudleya (*Dudleya spp.*), desert thorn (*Lycium californicum*), and San Diego sunflower (*Bahiopsis laciniata*) (Oberbauer et al. 2008).

Within the CACPA, maritime succulent scrub is found near occurrences of chamise chaparral mapped north of Montezuma Road and Fairmount Avenue.

4.2.2.7 Non-Native Grassland

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

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

Non-native grasslands (including broadleaf-dominated) are mapped in four main patches along the I-8 at the northern border of the CACPA.

4.2.2.5 Southern Maritime Chaparral

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

This vegetation community provides important habitat for wide-ranging, larger wildlife species such as mule deer (*Odocoileus hemionus*), mountain lion (*Felis concolor*), and golden eagle (*Aquila chrysaetos*). Depending on present species, this generalized habitat may also be considered

chamise or maritime chaparral. When coast white lilac (*Ceanothus verrucosus*) and/or scrub oak is present with or without other indicator species present, this habitat could be considered Tier I southern maritime chaparral per City's Biology Guidelines (2018b).

Southern maritime chaparral is mapped in the western portion of the CACPA, near occurrences of Diegan Coastal Sage Scrub in open areas between developments.

4.2.3 OTHER UPLANDS

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

4.2.3.2 Disturbed Habitat (Disturbed Land)

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

Areas mapped as disturbed land primarily occur throughout the central portion of the CACPA often surrounded completely by residential development and unconnected to natural habitat.

4.2.3.1 Eucalyptus Woodland

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

Eucalyptus woodland is mapped in a few small areas in the northwestern portion of the CACPA.

4.2.3.3 Non-Native Vegetation

Non-native vegetation is comprised of species which do not occur naturally in California. This vegetation community differs from the non-native grassland community in that it may include herbaceous, shrubby, and woody genera and is not restricted to contain dominants within the Poaceae (grass) family. This may include both invasive and non-invasive non-native plants depending on site conditions and human activity levels. Species composition is varied dependent

on nearby ornamentals, invasive plants, and non-native non-invasive plants which may have colonized the area.

Within the CACPA, non-native vegetation is mapped in areas near freeways or in proximity to developed areas.

4.2.3.3 Urban/Developed

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

Within the CACPA, developed land is the largest cover type occupying most of the total area, particularly in the central and eastern zones.

4.3 SPECIAL-STATUS BIOLOGICAL RESOURCES

According to SDMC (Chapter 11, Article 3, Division 1) and the City's Biology Guidelines (2018b), sensitive biological resources refers to upland and/or wetland areas that meet any one of the following criteria:

1) Lands that have been included in the City's MSCP Preserve (i.e., the Multi-Habitat Planning Area [MHPA]);
2) Wetlands;
3) Lands that contain Tier I, Tier II, Tier IIIA, or Tier IIIB habitats;
4) Lands supporting species or subspecies listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the federal Endangered Species Act, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;
5) Lands containing habitats with MSCP Narrow Endemic species as listed in the City's Biology Guidelines (2018b); or
6) Lands containing habitats of MSCP Covered Species as listed in the City's Biology Guidelines (2018b).

Assessments for the potential occurrence of sensitive biological resources are based upon known ranges, habitat associations, and historical species occurrence records from the vicinity of the CACPA (as described in Section 3). No field vegetation mapping or focused sensitive species surveys were conducted as part of this BRR.

The following sections provide definitions for each of these sensitive biological resources and describe the sensitive biological resources that are known to occur or have a potential to occur within and/or adjacent to the CACPA.

4.3.1 SENSITIVE VEGETATION COMMUNITIES

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, or have a particular value to other wildlife. Typically, sensitive vegetation communities are considered sensitive whether or not they have been disturbed. Within

the CACPA, there are both sensitive upland vegetation communities and sensitive wetland communities.

The City's Biology Guidelines (2018b) divide upland vegetation communities into five tiers of sensitivity (the first being the most sensitive, the fifth the least sensitive) based on rarity and ecological importance. Tier I includes rare uplands; Tier II includes uncommon uplands; Tiers IIIA and IIIB include common uplands, and Tier IV includes other uplands. Tier I, II, IIIA, and IIIB are considered sensitive vegetation communities, while vegetation communities and land cover types classified as Tier IV are not considered sensitive.

Wetland communities are not assigned a tier under the City's Biology Guidelines, but they are considered sensitive under the City's Biology Guidelines (City 2018b). More specifically, City wetlands are defined in Chapter 11, Article 3, Division 1 of the SDMC and include areas characterized by the following conditions:

1) All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation;
2) Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities; and/or
3) Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology resulting from non-permitted filling of previously existing wetlands.

Additionally, typical non-sensitive habitats may be deemed sensitive if they support a sensitive species such as a burrowing owl or rare/endemic plant species.

Based on the definitions of "sensitive" and Table 3, above, the CACPA supports eight sensitive vegetation communities. All of the wetland communities (two habitat types) and six of the ten upland communities are considered sensitive, including:

- Southern Cottonwood-Willow Riparian Forest
- Southern Riparian Scrub
- Chaparral
- Chamise Chapparal
- Diegan Coastal Sage Scrub
- Maritime Succulent Scrub
- Southern Maritime Chaparral
- Non-Native Grassland

4.3.2 SPECIAL-STATUS PLANTS

Special-status plant species are those that are federal, State, or CNPS rare, threatened, or endangered; MSCP Covered Species; MSCP Narrow Endemic (NE) species; or California Rare Plant Rank (CRPR) ranked list 1 and 2 species (Appendix A).

Special status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic

range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exists naturally in small populations.

Per the sources listed above, a total of 15 sensitive plant species have been historically identified within or immediately adjacent to the CACPA (Table 4). Many of these occurrences are affiliated with the San Diego State University (SDSU) campus or are located in open spaces surrounding I-8. Note that some of date back decades and prior to community development, so some of the historical occurrences are believed to have been extirpated. In particular, the mesa areas within the CACPA have been developed, so vernal pool species are included herein but are no longer anticipated to occur in the plan area. Of the species that have been reported in the community plan area, 13 are MSCP covered species (Table 4). Note that these species have special conditions of coverage under the MSCP. Most conditions relate to long-term species and habitat management but occasionally include development restrictions. For a full list of MSCP conditions of coverage please see Appendix B.

A search of CNPS and CNDDB records (nine USGS 7.5-minute quadrangle search) was used to develop a matrix of additional sensitive plant species that may have potential to occur in the CACPA due to the presence of suitable habitat (e.g., vegetation communities, soils, elevation, and geographic range, life form/blooming period, etc.). The matrix is presented in Table 4.

Table 4. Special-Status Plant Species and Potential to Occur in the College Area Community Plan Update Area

Species	Sensitivity[2] Federal State CRPR City	Habitat(s)/Range and Potential to Occur	Lifeform[3] and Bloom Period
San Diego thorn-mint (*Acanthomintha ilicifolia*)	FT SE CRPR 1B.1 MSCP Covered; NE	Low Potential. Occurs between 10 and 960 meters AMSL on clay soils in chaparral, coastal sage scrub, valley and foothill grassland, and vernal pools. CNDDB has three historical records of this species within two miles of the CACPA in La Mesa; however, these records were presumed extirpated by 2009 due to development. More recent species records (2016) exist within four miles of the CACPA in Elanus Canyon (Calflora 2024). Suitable habitat present within the CACPA, but area lacks clay soils and is highly developed; species is likely extirpated within the CACPA.	Annual herb April to June
California adolphia (*Adolphia californica*)	-- -- CRPR 2B.1 --	Present . Found in clay soils in chaparral, coastal scrub, and valley and foothill grassland vegetation at elevations between 10 and 740 meters AMSL. Species recorded in the central portion of the CACPA in 2018 (Recon, 2020b), and in 2016 in the SDSU Adobe Falls Ecological Reserve, within 0.5 miles of the CACPA. Suitable habitat present, though the CACPA lacks clay soil series and extensive development has occurred in the region.	Perennial, deciduous shrub December to May
Singlewhorl burrowbush (*Ambrosia monogyra*)	-- -- CRPR 2B.2 --	Present. Found in sandy soils in chaparral and Sonoran desert scrub between 10 and 500 meters AMSL. CNDDB lists an occurrence (1993) at the junction of Fairmount Avenue and Montezuma Road within the CACPA. Suitable habitat exists in chaparral vegetation communities within the CACPA.	Perennial shrub August to November
Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*)	FE -- CRPR 1B.1 MSCP Covered	Moderate Potential. Occurs in maritime and sandy chaparral habitats at elevations of 0 to 365 meter AMSL. Species recorded in 2024 within 5.5 miles of the CAPCA near East Miramar Range complex (Calflora 2024). Suitable chaparral habitat for this species occurs within the CACPA.	Perennial evergreen shrub Jun - April

Coulter's saltbush (*Atriplex coulteri*)	-- -- CNPS 1B.2 --	**Moderate Potential.** Occurs between 3 and 460 meters AMSL in areas of alkaline or clay soils within coastal bluff scrub, coastal dunes, coastal scrub, and native grasslands. Species recorded in 2024 within 2 miles of the CACPA in open space near Margerum Avenue. Suitable coastal sage scrub habitat for this species is present in the CACPU area.	Perennial herb March to October
San Diego goldenstar (*Bloomeria clevelandii*)	-- -- CRPR 1B.1 MSCP Covered	**Low Potential/Presumed Extirpated.** Occurs in clay soils in chaparral, coastal scrub, valley and foothill grassland, and vernal pool habitat at elevations of 50 to 465 meters AMSL. CNDDB historical and presumed extirpated records occur in the SDSU region; an additional extirpated record (1936) occurs less than 0.5 miles southwest of the CACPA. Suitable habitat present, though CACPA lacks clay soil series and extensive development has occurred in the region.	Perennial bulbiferous herb April to May
Orcutt's brodiaea (*Brodiaea orcuttii*)	-- -- CRPR 1B.1 MSCP Covered	**Low Potential/Possibly Extirpated.** Occurs in mesic, clay soils in closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools at elevations of 30 to 1692 meters AMSL CNDDB records (1936) list a possibly extirpated occurrence less than 0.5 miles southwest of the CACPA. Suitable habitat occurs on the CACPA in chaparral vegetation communities; however, clay soils absent from CACPA.	Perennial bulbiferous herb May to July
Wart-stemmed ceanothus (*Ceanothus verrucosus*)	-- -- CRPR 2B.2 MSCP Covered	**Present.** Found in chaparral and coastal scrubs at elevations between 1 and 380 meters AMSL. CNDDB lists one presumed extant population (1998) on a steep slope northeast of the Fairmount Avenue and Montezuma Road junction, within the CACPA. Additional suitable habitat occurs within chaparral and costal scrub vegetation communities within the CACPA.	Perennial evergreen shrub December to May
Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)	-- -- CRPR 1B.2 --	**Moderate Potential.** Found in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools at elevations ranging from 30 to 1530 meters AMSL, often in clay habitats. Recorded in 2011 within 4.5 miles of the CACPA in Balboa Park (Calflora 2024). Suitable coastal scrub and chaparral habitat for this species are present within the CACPA.	Annual herb April to July
Summer holly	-- --	**Moderate Potential.** Found within chaparral and cismontane woodlands at elevations of 30 to 790 meters AMSL. Recorded in	Perennial evergreen shrub

(*Comarostaphylis diversifolia* ssp. *diversifolia*)	CRPR 1B.2 --	2006 within one mile of the CACPA in the Kensington Hillsides Open Space (Calflora 2024). Chaparral habitat suitable to support this species occurs within the CACPA.	April to June
Otay tarplant (*Deinandra conjugens*)	FT CE CRPR 1B.1 MSCP Covered; NE	Low Potential. Occurs in clay soils within coastal scrubs and valley and foothill grasslands at elevations ranging from 25 to 300 meters AMSL. Species recorded in 2018 at Paradise Hills Park within 5 miles of the CACPA (Calflora 2024). Suitable coastal scrub habitat occurs within the CACPA; however, clay soils are absent.	Annual herb (April) May to June
Variegated dudleya (*Dudleya variegata*)	-- -- CRPR 1B.2 MSCP Covered; NE	Low Potential/Possibly Extirpated. Occurs in clay soils in chaparral, coastal scrub, cismontane woodlands, valley and foothill grassland, and vernal pool habitat at elevations of 3 to 580 meters AMSL. CNDDB lists one possibly extirpated population (1936) 0.5 miles west of the SDSU campus within the CACPA. Significant development has occurred in the CACPA since this historical record. Species recorded in 2012 within 4 miles of the CACPA within Mission Trails Regional Park (Calflora 2024). Chaparral and coastal scrub vegetation communities occur within the CACPA; however, clay soils are absent.	Perennial herb April to June
Palmer's goldenbush (*Ericameria palmeri* var. *palmeri*)	-- -- CRPR 1B.1 MSCP Covered	Low Potential. Occurs between 300 and 600 meters AMSL in mesic soils; associated with chaparral and coastal scrub vegetation. CNDDB lists one presumed extant occurrence in Mahogany Canyon (1935) and one presumed extirpated 1965 record in the vicinity of La Mesa. Suitable vegetation communities and mesic conditions exist within the CACPA; however, the CACPA (which spans 25-166 meters AMSL) falls outside of this plant's elevational range.	Perennial shrub July to November
San Diego button celery (*Eryngium aristulatum* var. *parishii*)	FE CE CRPR 1B.1 MSCP Covered	Low Potential. Found in mesic soils in coastal scrub, valley and foothill grasslands, and vernal pool habitats which range in elevation from 20 to 620 meters AMSL. CNDDB reports one extirpated population (1936) less than 0.5 miles southwest of the CACPA. Suitable coastal scrub habitat occurs on the CACPA; however, adjacent localities have been extirpated.	Annual/perennial herb April to June
San Diego barrel cactus (*Ferocactus viridescens*)	-- -- CRPR 2B.1	Present. Occurs between 3-450 meters AMSL in chaparral, coastal scrub, valley and foothill grassland, and vernal pool habitat. CNDDB lists one presumed extant occurrence of this plant within the CACPA approximately one mile east/southeast of the I-15/I-8 junction along	Perennial stem succulent May to June

	MSCP Covered	Fairmont Avenue. Additional suitable habitat for this species occurs throughout open spaces within the CACPA.	
Cambell's liverwort (*Geothallus tuberosus*)	-- -- CRPR 1B.1 --	High Potential. Occurs in mesic coastal scrub and vernal pool habitats at elevations ranging from 10 to 600 meters AMSL. Multiple records of this species exist within Navajo Canyon Open Space, less than 400 feet north of the CACPA, and the species was documented in 2023 on the SDSU Adobe Falls Ecological Preserve adjacent to the CACPA (Calflora 2024). Suitable costal scrub habitat occurs within the CACPA.	Ephemeral liverwort
Decumbent goldenbush (Isocoma menziesii var. decumbens)	-- -- CNPS 1B.2 --	Moderate Potential. Occurs in chaparral and coastal scrub habitat with sandy soils, often in disturbed areas at elevations of 10-135 meters AMSL. Recorded in 2018 at Chollas Lake Park, within two miles of the CACPA (Calflora 2024). Similar suitable habitat occurs throughout the CACPA.	Perennial shrub April to November
San Diego marsh-elder (Iva hayesiana)	-- -- CRPR 2B.2 --	Present. Found in marshes, swamps, plays, and often associated with drainage channels. Found between 10 and 500 meters AMSL in openings within the vegetation. CNDDB lists one presumed extant population near the I-8 and College Avenue junction, within the CACPA. Additional suitable wetland habitat and drainages that could support this species occur in the CACPA.	Perennial herb April to October
Willowy monardella (*Monardella viminea*)	FE CE CNPS 1B.1 MSCP Covered	Moderate Potential. Occurs in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland habitat within alluvial, ephemeral washes at elevations of 50 to 225 meters AMSL. Recorded in 2000 in Tierrasanta, less than four miles from the CACPA (Calflora 2024). Suitable habitat for this species occurs throughout the CACPA.	Perennial herb June to August
Prostrate vernal pool navarretia (*Navarretia prostrata*)	-- -- CRPR 1B.2 --	Low Potential. Occurs in mesic coastal scrub, meadows and seeps, valley and foothill grasslands with alkaline soils, and vernal pools at elevations of 3 to 1210 meters AMSL. Historically recorded (1981) in Kearny Mesa within five miles of the CACPA (Calflora 2024). Suitable coastal scrub habitat occurs within the CACPA.	Annual Herb April to July
San Diego mesa mint (*Pogogyne abramsii*)	FE CE CRPR 1B.1	Not Suitable. Occurs in vernal pool habitat at elevations of 90 to 200 AMSL. CNDDB lists two extirpated populations, one population occurs less than 0.5 miles southwest of the CACPA and an additional population occurs south of SDSU within the CACPA. Both	Annual herb March to June

	MSCP Covered; NE	records pre-date 1950 and have been listed as extirpated by CNDDB. Suitable vernal pool habitat does not occur within the CACPA.	
Otay Mesa mint (*Pogogyne nudiuscula*)	FE CE CRPR 1B.1 MSCP Covered; NE	**Not Suitable.** Occurs in vernal pool habitat at elevations of 90 to 250 meters AMSL. CNDDB lists one extirpated population north of SDSU near Adobe Falls. Suitable vernal pool habitat does not occur within the CACPA.	Annual herb May to July
Nuttall's scrub oak (*Quercus dumosa*)	-- -- CRPR 1B.1 --	**Present.** Found in closed-cone coniferous forest, chaparral, and coastal scrub habitat between 15 and 400 meters AMSL. This species has been documented in the central portion of the CACPA in 2018 (Recon, 2020b), and CNDDB lists a presumed extant record of this species one mile east/southeast of the I-15 and I-8 junction within the CACPA. Additional suitable habitat exists in chaparral and scrub vegetation communities throughout the CACPA.	Perennial evergreen shrub February-April (August)
Munz's sage (*Salvia munzii*)	-- -- CNPS 2B.2 --	**Moderate Potential.** Occurs in chaparral and coastal scrub vegetation between 115 and 1,065 meters AMSL. Species recorded in 2012 within three miles of the CACPA in the Serra Mesa Open Space (Calflora 2024). Suitable chaparral and coastal scrub habitat occurs within the CACPA.	Perennial shrub February to April
Chaparral ragwort (*Senecio aphanactis*)	-- -- CRPR 2B.2 --	**Moderate Potential.** Occurs within chaparral, cismontane woodland, and coastal scrub habitats at elevations ranging from 15 to 800 meters AMSL. Recorded in 2012 within Mission Trails Regional Park, within four miles of the CACPA. Suitable chaparral and scrub habitat exists within the CACPA.	Annual herb January to April (May)
Purple stemodia (*Stemodia durantifolia*)	-- -- CRPR 2B.1 --	**Not Suitable.** Found in sandy and mesic Sonoran desert scrub habitats at elevations of 180 to 300 meters AMSL. CNDDB maps two extant populations near Adobe Falls and within Alvarado Canyon within a mile of the CACPA; however, suitable habitat for this species does not occur within the CACPA.	Perennial herb (January) April-December
Oil neststraw (*Stylocline citroleum*)	-- -- CRPR 1B.1 --	**Not Suitable.** Found in clay habitats within chenopod scrub, coastal scrub, valley and foothill grassland habitats at elevations ranging from 50 to 400 meters. CNDDB maps one presumed extant occurrence within the Point Loma USGS quadrangle within two miles	Annual herb March-April

		of the CACPA. Suitable clay habitat for this species does not occur within the CACPA.	

[1]Sensitive includes MSCP Narrow Endemic and Covered Species.
[2]See Appendix A for an explanation of sensitivity codes.
[3]Lifeform and bloom period retrieved from CNPS (2020).

4.3.3 SPECIAL-STATUS WILDLIFE

Special-status animal species are those that are considered federal or state threatened or endangered; or MSCP Covered Species (Appendix A).

A species may also be considered special-status if it is included on the CDFW's Special Animals List (CDFW 2025a-e) as a candidate for federal or state listing; is on California Species of Special Concern, Watch List Species, or Fully Protected species; or is a federal Bird of Conservation Concern (Appendix A). Generally, the principal reason an individual taxon (species or subspecies) is considered sensitive is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Additionally, avian nesting is protected by the federal Migratory Bird Treaty Act (MBTA) and CFG Code.

A total of 25 sensitive wildlife species have been recorded within or adjacent to the CACPA. Although the wildlife species listed above are recorded in or adjacent to the CACPA, many of these species have historical occurrence records and are currently presumed to be extirpated or possibly extirpated from the CACPA due to development, as detailed below in Table 5.

Of the species that have been reported in the CACPU area, 12 are MSCP covered species. Note that these species have special conditions of coverage under the MSCP. Most conditions relate to long-term species and habitat management but occasionally include development restrictions. For a full list of MSCP conditions of coverage please see Appendix B.

Table 5. Sensitive Wildlife Species and Potential to Occur in the College Area Community Plan Update Area

Species	Sensitivity[2] Federal State City	Habitat and Potential to Occur
Amphibians		
Western spadefoot (*Spea hammondii*)	FPT SSC --	Moderate Potential. Inhabits floodplains, washes, and low hills. In southern California, suitable habitats include coastal sage scrub, chaparral, and grassland. Requires ephemeral pools for breeding and friable soils for burrowing. CNDDB lists one presumed extant record of this species occurring within two miles of the CACPA in the greater National City Area. Limited suitable habitat is present in wetland and riverine habitats within the CACPA.
Reptiles		
Southern California legless lizard (*Anniella pulchra*)	-- SSC --	Low Potential. Occurs in coastal dune, valley foothill grassland, chaparral, and coastal scrub habitats. One presumed extant CNDDB record exists within two miles of the CACPA in the greater National City area. An additional, possibly extirpated, CNDDB record exists in the La Mesa area. Suitable habitat is present in chaparral and scrub vegetation communities within the CACPA.
Orange-throated whiptail (Aspidoscelis hyperythra)	-- WL MSCP Covered	Moderate Potential/Possibly Extirpated. Occurs primarily on coarse soils in open coastal sage scrub vegetation. Occurs along the edge of open, dry, riparian areas, along trails, along dirt roads, and in areas of light off-road vehicle use. There are historical records of an SDSU locality, however, this species was presumed extirpated from the area by 1990. An additional, possibly extirpated, CNDDB record exists in the La Mesa area within two miles of the project site. Suitable habitat is present in open spaces within the CACPA.
California glossy snake (*Arizona elegans occidentalis*)	-- SSC --	Moderate Potential. Occurs primarily in desert habitat types, including chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grass. One presumed extant CNDDB record of this species exists in Grantville, within two miles of the CACPA. Suitable habitat for this species is present in chaparral vegetation communities within the CACPA.

Species	Sensitivity[2] Federal State City	Habitat and Potential to Occur
Coast horned lizard (*Phrynosoma coronatum blainvillii*)	-- SSC MSCP Covered	Moderate Potential/Possibly Extirpated. Occurs in areas with native ants and few or no Argentine ants, native chaparral vegetation, and porous soils relatively free of organic debris. One CNDDB, possibly extirpated, record exists within the CACPA within the SDSU Adobe Fall Open Space Park. Additional suitable habitat is present within chaparral within the CACPA.
Birds		
Cooper's hawk (*Accipter cooperii*)	-- SSC MSCP Covered	Present. Occurs in mature forest, open woodlands, wood edges, river groves. Nests in coniferous, deciduous, and mixed woods, typically those with tall trees and with openings or edge habitat nearby. Also found among trees along rivers through open country, and increasingly in suburbs and cities where some tall trees exist for nest sites. Observed on the SDSU campus within the CACPA (eBird 2024). Suitable habitat for this species is present throughout the CACPA.
Olive-sided flycatcher (*Contopus cooperi*)	-- SSC --	Present – Found along edges or within openings of semi-open to dense forests, largely composed of conifers in Southern California. Broaden tree genera preferences during migration; desert migrants are found in various habitats containing trees. Nest primarily in conifers, occasionally in willows, oaks, alders, and eucalyptus. Records of this species exist on the SDSU campus within the CACPA (eBird 2024). Suitable habitat for this species is present throughout the CAPCU.
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	-- WL MSCP Covered	Present. Occurs in coastal sage scrub and chaparral habitats of moderate density throughout the County. Records of this species exist on the SDSU campus within the CACPA (eBird 2024). Suitable habitat for this species is present in coastal sage scrub and chaparral vegetation communities within the CACPA.
Northern harrier (*Circus cyaneus*)	-- -- MSCP Covered	Present. Occurs in marshes, fields, prairies. Found in many kinds of open terrain in both wet and dry habitats, where there is good ground cover. Observed on the SDSU campus within the CACPA (eBird 2024). Suitable habitat is present in open spaces within the CACPA.

Species	Sensitivity[2] Federal State City	Habitat and Potential to Occur
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE SE MSCP Covered	Low Potential. Occurs in deciduous thickets, especially willows and often near water. CNDDB does not list species records within the vicinity of the CACPA. Limited suitable habitat exists in riparian scrub and woodlands within the CACPA.
Prairie falcon (*Falco mexicanus*)	-- WL --	Moderate Potential. Occurs in open hills, plains, prairies, deserts. Typically found in fairly dry open country, including grassland and desert. Observed and presumed extant within the La Mesa region. Limited suitable habitat is present in grassland vegetation communities within the CACPA.
American peregrine falcon (*Falco peregrinus anatum*	-- -- MSCP Covered	Present. Occurs in highly variable habitat types; often documented as showing little preference for specific ecological communities. Prefers cliffs and tall, man-made structures surrounded by open landscapes with nearby riparian areas. Observed on the SDSU campus within the CACPA (eBird 2024). Suitable habitat for this species is present throughout the CACPA.
Yellow-breasted chat (*Icteria virens*)	-- SSC --	High Potential. In California, this species is found in a variety of dense riparian thickets during its breeding season and is mostly absent during the winter months. Observed within two miles of the CACPA near Snapdragon Stadium (eBird 2024). Suitable breeding habitat for this species is present in riparian scrubs and woodlands within the CACPA.
Coastal California gnatcatcher (*Polioptila californica californica*)	FT SSC MSCP Covered	Present. Occurs in in or near coastal scrub vegetation communities dominated by sage. Density of gnatcatchers is highest in high-quality habitat and decreases as habitat quality decreases. USFWS lists records of this species on the SDSU campus within the CACPA. Suitable habitat for this species exists within sage scrub vegetation communities throughout the CACPA.
Yellow warbler (*Setophaga petechia*)	BCC SSC --	Present. Occurs in woods and thickets along edges of streams, lakes, swamps, and marshes, favoring willows, alders, and other moisture-loving plants. Observed on the SDSU campus within the CACPA (eBird 2024). Suitable habitat for this species is present in riparian vegetation communities within the CACPA.

Species	Sensitivity[2] Federal State City	Habitat and Potential to Occur
Least Bell's vireo (*Vireo bellii pusillus*)	FE SE MSCP Covered	Moderate Potential. The least Bell's vireo is found a variety of riparian scrub, woodland, and forest habitats in California and northern Baja California, Mexico during its breeding season. It winters in southern Baja California, Mexico. A CNDDB record exists for this species in the La Mesa area, within a two-mile radius of the CACPA. Limited suitable habitat for this species is present in riparian thickets within the CACPA and the species may move through the CACPA during migration; however, larger habitat blocks occur outside of the CACPA (e.g., the San Diego River) and are more likely to be inhabited and used for breeding by this species.
Summer tanager (*Piranga rubra*)	-- SSC --	Present. The summer tanager nests in mature riparian woodlands composed of willows and cottonwoods. A dense canopy is required to maintain thermal homeostasis during mid-summer nesting. Records of this species occur within the CACPA on the SDSU campus (eBird 2024). Suitable nesting habitat for this species is available in sections of riparian woodland near College Avenue or the center of the CACPA off of Montezuma Road.
Western bluebird (*Sialia mexicana*)	-- -- MSCP Covered	High Potential. Nest in cavities in trees or man-made wooden structures. Occur in semi-open woodland, riparian, grassland, and semi-urban areas. Observed on the SDSU campus within the CACPA (eBird 2024). Additional suitable habitat for this species occurs throughout the CACPA.
Canada goose (*Branta canadensis* ssp. *moffitti*)	-- -- MSCP Covered	Present. Occurs in fresh and salt marshes near wooded areas as well as suburban ponds and city parks. Recorded on the SDSU campus within the CACPA (eBird 2024). Additional suitable wetland habitat for this species occurs within the CACPA.
Invertebrates		
Crotch's bumble bee (*Bombus crotchii*)	-- SCE --	Moderate potential. Occurs across a variety of arid shrublands and grasslands in coastal and foothill areas of southern California. Nectar plants include milkweeds, buckwheats, and lupines, amongst other angiosperms with medium-length floral tubes. Suitable habitat types and nectar sources for this species are present throughout the CACPA.

Species	Sensitivity[2] Federal State City	Habitat and Potential to Occur
Wandering skipper (*Panoquina errans*)	-- -- MSCP Covered	Low Potential. Occurs near salt marshes in proximity to grasslands or wooded areas. Restricted to areas which contain host plant, saltgrass (*Distichlis spicata*), for oviposition and larval maturation. Suitable saltmarsh habitat is absent from the CACPA.
Quino checkerspot butterfly (*Euphydryas editha quino*)	FE -- --	Moderate potential. Occurs in grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub that support native species of plantain, the butterlfly's primary larval host plant. Records of the species adjacent to the CACPA exist and similar habitat types occur within the CACPA.
Mammals		
Pacific pocket mouse (*Perognathus longimembris pacificus*)	FE	Not Expected. The Pacific pocket mouse has occurred on fine-grain, sandy substrates in open coastal sage scrub, coastal strand, coastal dune, and river alluvium habitats. The extant populations at the three known locales occur within open coastal sage scrub habitats. While similar habitat types occur within the CACPA, known populations are not located in proximity to the CACPA.
Mexican long-tongued bat (*Choeronycteris mexicana*)	-- SSC --	Moderate potential. No observations for this species have been recorded; however, nectaring habitat has been documented within the CACPA. (Recon, 2020b).
Western mastiff bat (*Eumops perotis californicus*)	-- SSC --	Present. Found in chaparral and often associated with oak trees. Also known to roost in cracks and small holes within rocky areas and man-made structures. A presumed extant CNDDB record for this species exists on the SDSU campus within the CACPA. Additional suitable habitat for this species is present throughout the CACPA.

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

4.3.4 U.S. FISH AND WILDLIFE SERVICE CRITICAL HABITAT

Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. There is no critical habitat within the CACPA.

4.4 POTENTIALLY JURISDICTIONAL AQUATIC RESOURCES

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

Vegetation communities in the CACPA that may qualify as jurisdictional aquatic resources include southern cottonwood-willow riparian forest and southern riparian scrub. In addition to mesic vegetation communities, the USFWS National Wetlands Inventory (NWI; 2020a) database maps freshwater forested/shrub wetlands and riverine regions within the CACPA. Specifically, WTI maps the following aquatic resources, as defined by the NWI: R4SBAx: riverine, intermittent, streambed; temporarily flooded; excavated; PSS/FOA: palustrine, scrub-scrub, forested, temporarily flooded; R4SBA: riverine, intermittent, streambed; temporarily flooded; and PSSA: palustrine, scrub-shrub, temporary flooded.

NWI-mapped riverine and freshwater forested/shrub wetlands features within the CACPA occur in open spaces throughout the CACPA in areas of relatively low topography between development. NWI-mapped features within the CACPA occur as tributaries associated with the San Diego River and/or the Murray Reservoir (see Figure 4).

4.4.1 U.S. ARMY CORPS OF ENGINEERS JURISDICTION

USACE regulates the discharge of dredged and/or fill material, both temporary and permanent, into Wetland and Non-Wetland WoUS, pursuant to Section 404 of the CWA. USACE Non-Wetland WoUS are delineated by the lateral and upstream/downstream extent of the ordinary high-water mark. USACE Wetland WoUS are areas that support wetland hydrology, hydric soils, and hydrophytic vegetation. Swales and erosional features (e.g., gullies; small washes characterized by low volume, infrequent, and short duration flow) are generally not considered WoUS because they are not tributaries or they do not have a significant nexus to downstream TNWs.

4.4.2 REGIONAL WATER QUALITY CONTROL BOARD JURISDICTION

The RWQCB is a regional agency responsible for protecting water quality in California. The RWQCB asserts regulatory jurisdiction over activities affecting wetland and non-wetland Waters of the State (State Water Resources Control Board 2019) pursuant to Section 401 of the Clean Water Act and the State Porter-Cologne Water Quality Control Act. The RWQCB requires a delineation of resources to document wetland and non-wetland Waters of the State. The RWQCB issues a Clean

Water Act Section 401 Water Quality Certification for projects that affect Waters of the State and requires a Report of Waste Discharge for projects that affect water quality of isolated Waters of the State under Porter-Cologne.

4.4.3 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE JURISDICTION

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

4.4.4 LOCAL

City of San Diego

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

1) All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools;
2) Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation, or catastrophic or recurring natural events or processes have acted to preclude the establishment of wetland vegetation as in the case of salt pannes and mudflats;
3) Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non- permitted filling of previously existing wetlands; and/or
4) Areas mapped as wetlands on Map No. C-713 as shown in Chapter 13, Article 2, Division 6 (Sensitive Coastal Overlay Zone).

Within the CACPA, the habitats considered to be City wetlands are presented in Table 3 and Figure 5 and include southern cottonwood-willow riparian forest and southern riparian scrub.

4.5 WILDLIFE MOVEMENT CORRIDORS

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

corridors and linkages are considered sensitive by the City, resource agencies, and conservation groups.

No MSCP-mapped wildlife corridors occur within the CACPA. Undeveloped areas in the CACPA are limited in scope by surrounding existing development, including major freeways, but likely serve as stepping stones and local links.

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

5 MSCP Consistency Analysis

This section provides information to inform the MSCP consistency analysis for future projects within the CACPA and for the CACPU itself through compliance with applicable portions of the MSCP Subarea Plan, including the General Planning Policies and Design Guidelines (Section 1.4.2 of the MSCP Subarea Plan); Land Use Adjacency Guidelines (Section 1.4.3 of the MSCP Subarea Plan); General Management Goals and Objectives (Section 1.5.1 of the MSCP Subarea Plan); General Management Directives (Section 1.5.2 of the MSCP Subarea Plan); and Specific Management Policies and Directives for Urban Habitat Lands (Section 1.5.7 of the MSCP Subarea Plan). For a description of each applicable MSCP policy, please refer to Section 2 of this document.

When a biological resources report is required for a future site-specific project within the CACPA, the report shall include an MSCP Consistency Analysis that documents compliance with applicable sections of the MSCP Subarea Plan that pertain to biological resources within the CACPA and the specific project area. All future projects shall be planned and executed in conformance with ESL Regulations, Biology Guidelines, MSCP Subarea Plan and the Vernal Pool Habitat Conservation Plan.

5.1 GENERAL PLANNING POLICIES AND DESIGN GUIDELINES

Projects within the CACPA that are within or adjacent to the MHPA would be analyzed on a project-by-project basis to ensure compliance with the construction and maintenance policies for roads and utilities, as outlined in Section 1.4.2 of the MSCP Subarea Plan. Note that if road widening or utilities are proposed within or adjacent to the MHPA, the policies above would apply, and MSCP consistency would be assessed on a project-by-project basis. Through implementation of these policies, future development would be consistent with the MSCP Subarea Plan. As such, the CACPU, as a programmatic document that guides planning and would not alter MSCP consistency requirements for subsequent projects, is consistent with the MSCP Subarea Plan roads and utilities construction and maintenance requirements.

5.1.1 ROADS AND UTILITIES – CONSTRUCTION AND MAINTENANCE POLICIES

Projects within the CACPA that are within or adjacent to the MHPA would be analyzed on a project-by-project basis to ensure compliance with the construction and maintenance policies for roads and utilities, as outlined above. Note that if road widening or utilities are proposed within or adjacent to the MHPA, the policies above would apply, and MSCP consistency would be assessed on a project-by-project basis. Through implementation of these policies, future development would be consistent with the MSCP Subarea Plan. As such, the CACPU, as a programmatic document that guides planning and would not alter MSCP consistency requirements for subsequent projects, is consistent with the MSCP Subarea Plan roads and utilities construction and maintenance requirements.

5.1.2 FENCING, LIGHTING, AND SIGNAGE

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the fencing, lighting, and signage policies, as outlined in Section 1.4.2 of the MSCP Subarea Plan. Through implementation of these policies, these projects will be consistent

with the MSCP Subarea Plan. As such, the CACPU, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan fencing, lighting and signage requirements.

5.1.3 MATERIALS STORAGE

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the materials storage policies, as outlined in Section 1.4.2 of the MSCP Subarea Plan. Through implementation of these policies, these subsequent site-specific projects will be consistent with the MSCP Subarea Plan. By requiring subsequent projects to include an MSCP consistency analysis in the biological resources report, the CACPU itself, as a programmatic document that guides project analyses, is consistent with the MSCP Subarea Plan materials storage requirements.

5.1.4 MINING, EXTRACTION, AND PROCESSING FACILITIES

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with policies that apply to mining, extraction, and processing facilities, as outlined in Section 1.4.2 of the MSCP Subarea Plan. Through implementation of these policies, these subsequent site-specific projects will be consistent with the MSCP Subarea Plan. By requiring projects to include an MSCP consistency analysis in the biological resources report, the CACPU itself, as a programmatic document that guides project analyses, is consistent with the MSCP Subarea Plan mining and extraction policies.

5.1.5 FLOOD CONTROL

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the flood control policies, as outlined in Section 1.4.2 of the MSCP Subarea Plan. Through implementation of these policies, these subsequent site-specific projects will be consistent with the MSCP Subarea Plan. By requiring projects to include an MSCP consistency analysis in the biological resources report, the CACPU itself, as a programmatic document that guides project analyses, is consistent with the MSCP Subarea Plan flood control requirements.

5.2 LAND USE ADJACENCY GUIDELINES

Section 1.4.3 of the MSCP Subarea Plan provides guidelines that apply to projects adjacent to the MHPA. An MSCP consistency analysis for the CACPU and subsequent projects within the CACPA is provided below. For a listing of the MSCP adjacency guideline requirements, please refer to Section 2.3.2.2.

5.2.1 DRAINAGE

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the drainage guidelines, as discussed above, to ensure that new development does not drain directly into the MHPA. Through implementation of these policies, these projects will be consistent with the MSCP Subarea Plan. As such, the CACPU itself, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan drainage requirements.

5.2.2 TOXICS

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with MSCP toxics guidelines, to ensure that potentially toxic chemicals are not released into the MHPA. Through implementation of these policies, these projects will be consistent with the MSCP Subarea Plan Section 1.4.3. As such, the CACPU, as a programmatic document that guides planning and would not change MSCP consistency requirements for subsequent projects, is consistent with the MSCP Subarea Plan toxics requirements.

5.2.3 LIGHTING

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the lighting guidelines and ensure lighting adjacent to the MHPA is directed away from the MHPA or shielded to protect the MHPA and sensitive species from unnatural night lighting. Through implementation of these policies, these projects will be consistent with the MSCP Subarea Plan Section 1.4.3. As such, the CACPU itself, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan lighting requirements.

5.2.4 NOISE

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with MSCP noise guidelines and to avoid/minimize noise impacts on wildlife that utilize the MHPA. A primary focus of these protections is on sensitive avian receptors, and full impact analysis and protections would be determined on a project-specific basis. For instance, noise restrictions for coastal California gnatcatcher are in effect from March 1-August 15 and restrictions for least Bell's vireo are in place from March 15-September 15 under the MSCP. Through implementation of these policies, these projects will be consistent with the MSCP Subarea Plan. As such, the CACPU, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan noise requirements.

5.2.5 BARRIERS

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the barrier guidelines ensure that new development adjacent to the MHPA provides barriers to direct public access to appropriate locations and reduce domestic animal predation. Through implementation of these policies, these projects will be consistent with the MSCP Subarea Plan. As such, the CACPU, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan barriers requirements.

5.2.6 INVASIVES

Projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the invasive species guidelines, and ensure that no invasive, non-native plant species are introduced into the MHPA. Through implementation of these policies, these future projects will be consistent with the MSCP Subarea Plan. As such, the CACPU, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan invasives requirements.

5.2.7 BRUSH MANAGEMENT

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the brush management guidelines and to ensure that appropriate setbacks and safety measures are in place for residential projects adjacent to the MHPA. Through implementation of these policies, these projects will be consistent with the MSCP Subarea Plan. As such, the CACPU, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan brush management requirements.

5.2.8 GRADING/LAND DEVELOPMENT

Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the grading/land development guidelines and ensure that manufactured slopes within or adjacent to the MHPA are included in the development footprint. Through implementation of these policies, these projects will be consistent with the MSCP Subarea Plan. As such, the CACPU, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan.

5.3 GENERAL MANAGEMENT GOALS AND OBJECTIVES

Section 1.5.1 of the MSCP Subarea Plan outlines the plan's habitat management goals and objectives that apply to the entire subarea. The habitat management component of the MHPA is essential to meeting the overall goal of the MSCP, which is to maintain and enhance the biological diversity in the region while also conserving viable populations of sensitive species and their habitats. By doing this, local extirpations and extinctions will be prevented and future species' listings will be minimized while allowing for responsible economic growth in the region. In addition to the general management directives that apply to the entire MSCP Subarea Plan, the Subarea Plan includes specific management directives for each planned area (i.e., Otay Mesa area, the Otay River Valley, the Tijuana River Valley, the Eastern Area, Urban Areas, the Northern Area, Lake Hodges and the San Pasqual Valley, and other Cornerstone Lands) . The CACPA occurs within the Urban Areas and would be subject the MSCP directives for those areas (as outlined in 1.5.7 of the Subarea Plan and described in Section 2 of this document).

Future site-specific projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the MSCP general management goals and objectives as well as the Urban Areas objectives. Through implementation of these policies, these future projects will be consistent with the MSCP Subarea Plan. As such, the CACPU itself, as a programmatic document that guides planning, is consistent with the MSCP Subarea Plan.

5.4 GENERAL MANAGEMENT DIRECTIVES

Section 1.5.2 of the MSCP Subarea Plan outlines the plan's general management directives that support the objectives listed in Section 1.5.1. These directives are organized by priority to assist decisions on where to spend limited funds and direct mitigation efforts, please refer to Section 2 of this report. Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the general management directives of the MSCP Subarea Plan.

5.5 SPECIFIC MANAGEMENT POLICIES AND DIRECTIVES FOR URBAN HABITAT LANDS

In addition to general management directives, the MSCP Subarea Plan has area specific guidelines and recommendations for various areas of the City. These include the Otay Mesa area, the Otay River Valley, the Tijuana River Valley, the Eastern Area, the Northern Area, Lake Hodges and the San Pasqual Valley, Cornerstone Lands, as well as "Urban Areas" which includes some lands within the CACPA.

As with the general management directives, these specific management directives, as outlined in Section 2 of this report, are organized by priority to assist decisions on where to spend limited funds and direct mitigation efforts. Priority 1 refers to directives that protect resources in the MHPA, including management actions that are necessary to ensure that MSCP-covered species are adequately protected, and Priority 2 refers to directives other than those required for MSCP-covered species status and other long-term conservation actions that can be implemented during the life of the MSCP Subarea Plan as funds become available.

Sections 1.5.7 and 1.5.8 of the MSCP Subarea Plan provide the MSCP Subarea Plan's goals and objectives, covered species, major issues, and overall management policies and directives for Urban Habitat Lands.

5.5.1 URBAN HABITAT LANDS

Section 1.5.7 of the MSCP Subarea Plan identifies the ideal future condition of the MHPA Urban Habitat Lands throughout the City, including urban canyons within the CACPA. Urban Habitat Lands are described as: (1) a system of canyons that provide habitat to native species that continue to use these Urban Habitat Lands, (2) habitats that provide 'stepping stones' for migratory bird species and those establishing new territories, and (3) environmental education opportunities for individuals who visit these natural areas. The major issues associated with these Urban Habitat Lands include:

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

For a listing of the MSCP management policies and directives for Urban Habitat Lands, please refer to Section 2 of this document. The MSCP Subarea Plan does not include any specific management directives for Urban Habitat Lands within the CACPA.

Management of City-owned MHPA preserve lands is generally performed by the City department that owns or is responsible for the land. The CACPU does not propose any changes to management activities within Urban Lands within the CACPA. Future projects within the CACPA will be analyzed on a project-by-project basis to ensure compliance with the management policies and directives for Urban Habitat Lands, where applicable. As such, the CACPU, as a programmatic

document that guides project planning, is consistent with the MSCP Subarea Plan Urban Lands requirements.

6 Impacts

This section provides guidance for biological resource impact analysis for future individual projects within the CACPA. This guidance is based on current existing federal, state, and local standards and regulations applicable to biological resources. For future projects within the CACPA that may affect sensitive biological resources, potential impacts to such sensitive biological resources must be assessed to determine if they are significant and if avoidance, minimization, and/or mitigation measures are required. The approach to identify and define impacts as well as to determine their significance, as described below, is based on current existing programs, plans, and regulations pertaining to the CACPA. Future projects within the CACPA should include an updated literature review and database search to obtain current information for applicable existing programs, plans, and regulations, as these documents are revised frequently to address changing environmental conditions.

6.1 IMPACT DEFINITIONS

A project may result in direct, indirect, and/or cumulative impacts to biological resources. Projects within the CACPA should define potential project impacts according to the CEQA impact definitions presented in the City's Biology Guidelines, which are as follows (2018b):

- Direct Impacts are defined as "a physical change in the environment which is caused by and immediately related to the project" (2018b). For example, vegetation removal resulting from brushing, grubbing, grading, trenching, and excavating is considered a direct impact.
- Indirect Impacts are defined as "a physical change in the environment, which is not immediately related to the project, but which is caused indirectly by the project" (2018b). Indirect impacts include physical changes in the environment caused by a direct impact. For example, dust from heavy equipment use during grading could settle on nearby vegetation and interfere with photosynthesis and cause an indirect impact, or the noise levels resulting from construction equipment could interrupt reproductive behavior within adjacent sensitive avian breeding habitats during the breeding season and cause an indirect impact.
- Cumulative Impacts are defined as "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects" (Association of Environmental Professionals 2020). Examples include the cumulative changes associated with urban development that result in habitat fragmentation; increased traffic, runoff, and noise levels; alteration of natural landscapes; wildlife movement restrictions; and introduction of invasive species.

Projects that conform to the MSCP Subarea Plan and VPHCP typically do not result in significant cumulative impacts. However, a rare circumstance could occur where impacts on a particular species not covered by the MSCP or impacts on an extremely rare habitat, e.g., native grasslands, may still result in a cumulative/significant impact. In this case, the project's biological resources report would identify the impacted biological resources and describe why a cumulative impact still exists regardless of the habitat level protection provided by the MSCP.

6.2 IMPACT ANALYSIS

The CACPU lays forth a plan for growth within the CACPA. College Area is a community that is already relatively built out and as such, new growth will generally occur within previously developed areas. All projects in the CACPA that could result in potentially significant impacts to sensitive biological resources will be required to adequately identify and quantify potential project impacts pursuant to the City's ESL Regulations and Biology Guidelines. Per the City's Biology Guidelines, a biological resources report is required for all proposed development projects which are subject to ESL Regulations and/or where CEQA review has determined that there may be a significant impact on other biological resources considered sensitive under CEQA.

Within the CACPA, Figures 4-6 depict the locations in the community where sensitive biological resources are known to exist. While future development of the CACPA would primarily be focused outside of the sensitive biological resource areas in accordance with the City's regulations and MSCP Subarea Plan, impacts to sensitive biological resources may occur as a result of development. Where any ESL is present, the City would require a biological resources report to evaluate the significance of impacts and to ensure future development demonstrates consistency with the City's Biology Guidelines, MSCP Subarea Plan, and VPHCP.

The biological resources report for a project should provide all information as required in the most recent version of the City's Biology Guidelines. In the current version of the guidelines (City 2018b), the biological resources report requirements are outlined in Section III.A.1. To summarize, field surveys must be conducted as needed following the guidance provided in Table 1 – Summary of Biological Survey Requirements in the City's Biology Guidelines to obtain the data necessary to adequately identify the biological resources within and adjacent to the project site. Based on the data collected during the surveys, the location and extent of the biological resources present within and adjacent to the project site must be clearly identified on a map of an appropriate scale. Field surveys for state-listed or federally listed sensitive, MSCP-covered, and/or VPHCP covered species surveys are typically valid for up to 24 months, after which they must be updated, as appropriate, to accurately reflect the biological resources on the project site.

Once the biological resources within and adjacent to the project site have been identified and mapped, the impacts should be analyzed following the guidance provided in the most recent version of the City's Biology Guidelines and the most recent version of the City's CEQA Significance Determination Thresholds. Section III.A.2 of the current version of the guidelines (City 2018b) states that the biological resources report must identify all potential project impacts from the development (both on-site impacts and off-site impacts) to sensitive biological resources and to other significant biological resources as determined by the CEQA process (i.e., sensitive, non-covered species), The biological resources report also should analyze the significance of these impacts, including an analysis of direct impacts, indirect impacts, and cumulative impacts. The City's most current CEQA Significance Determination Thresholds should be used as a reference during the significance determination process.

6.2.2 SUBSEQUENT PROJECT IMPACT ANALYSIS

As described above, subsequent site-specific projects within the CACPA have the potential to impact biological resources, as they would under the current community plan. These future projects would be analyzed at the individual site-specific project level to ensure conformance with all biological regulations and mitigation requirements as described below. No changes in requirements would result from implementation of the CACPU.

All projects in the CACPA that could result in significant impacts to sensitive biological resources will be required to adequately identify and quantify potential project impacts pursuant to the City's ESL Regulations and Biology Guidelines. Per the City's Biology Guidelines, a biological resources report is required for all proposed development projects which are subject to the ESL Regulations and/or where the CEQA review has determined that there may be a significant impact on other biological resources considered sensitive under CEQA.

Within the CACPA, Figures 4 and 5 depict the locations where known sensitive biological resources occur. Note that these locations are based on current database query only, and no pedestrian surveys were performed as part of this effort; all subsequent projects with potential resources present will be required to have a site-specific biological analysis, and sensitive resources not depicted here may be identified during individual project field surveys.

While future development of the CACPA will generally be focused outside of the sensitive biological resource areas and primarily within developed areas, impacts to sensitive biological resources may occur as a result of subsequent development. Where any ESL may be present, a biological resources report will be required in order to evaluate resources present and potential impacts in order to ensure that future development is consistent with the City's ESL Regulations, Biology Guidelines, MSCP Subarea Plan and VPHCP.

The biological resources report for a project should provide all information as required in the most recent version of the City's Biology Guidelines. In the current version of the guidelines (2018b), the biological resources report requirements are outlined in Section III.A.1. To summarize, field surveys must be conducted as needed following the guidance provided in Table 1 – Summary of Biological Survey Requirements in the City's Biology Guidelines to obtain the data necessary to adequately identify the biological resources within and adjacent to the project site. Based on the data collected during the surveys, the location and extent of the biological resources present within and adjacent to the project site must be clearly identified on a map of an appropriate scale. Field surveys for state-listed or federally listed sensitive, MSCP-covered, and/or VPHCP-covered species surveys are typically valid for up to 24 months, after which they must be updated, as appropriate, to accurately reflect the biological resources on the project site.

Once the biological resources within and adjacent to the project site have been identified and mapped, the impacts should be analyzed following the guidance provided in the most recent version of the City's Biology Guidelines and the most recent version of the City's CEQA Significance Determination Thresholds. Section III.A.2 of the current version of the guidelines (City 2018b) states that the biological resources report must identify all potential project impacts from the development (both on-site impacts and off-site impacts) to sensitive biological resources and to other significant biological resources as determined by the CEQA process (i.e., sensitive, non-covered species), The

biological resources report also should analyze the significance of these impacts, including an analysis of direct impacts, indirect impacts, and cumulative impacts. The City's most current CEQA Significance Determination Thresholds should be used as a reference during the significance determination process.

The City's CEQA Significance Determination Thresholds (City 2022) are used to determine if impacts on biological resources are significant. Per these guidelines, a project could have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by CDFW or the USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or the USFWS;
- Have a substantial adverse effect on state or federally protected wetlands as defined by USACE, CDFW, RWQCB, or California Coastal Commission, including but not limited to marsh, coastal, etc., through direct removal, filling, hydrological interruption or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites;
- Conflict with the provisions of any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Program (NCCP), or other approved local, regional, or state HCP.

Significance determinations for direct and indirect impacts to biological resources resulting from projects in the CACPA that are presented in the biological resources report would be evaluated by City staff through the CEQA review process using the City's most current CEQA Significance Determination Thresholds at the time of the project. Each impact will be considered in the context of the project to ensure all potentially significant impacts are identified and avoided to the extent feasible or, for unavoidable impacts, that appropriate mitigation is implemented to reduce the impact to below a level of significance. This review process is intended to demonstrate the future site-specific project's consistency with the City's ESL Regulations, Biology Guidelines, MSCP Subarea Plan and VPHCP, and with all other applicable federal, state, and local programs, regulations, and documents.

6.2.3 CUMULATIVE IMPACT ANALYSIS

The MSCP Subarea Plan was designed to compensate for the regional loss of biological resources throughout the region. Projects that conform with the MSCP Subarea Plan and other City programs and regulations are not expected to result in a significant cumulative impact for those biological resources adequately covered by the MSCP. These resources include the vegetation communities identified as Tier I through IV and the MSCP-covered plant and wildlife species. However, the following would be considered significant cumulative impacts:

- All direct impacts to vernal pools are significant and cumulatively significant. Impacts to vernal pools may be mitigated in accordance with the criteria in the City's Biology Guidelines and the VPHCP.
- Direct impacts to perennial native grasslands that are greater than 0.1 acre are significant and cumulatively significant. Direct impacts to this habitat type are mitigated via Tier I per the City's Biology Guidelines. Cumulative impacts may be mitigated only via creation at a 1:1 ratio or greater with the feasibility of creation to be evaluated on a case-by-case basis.
- Impacts to species covered by the MSCP (see Appendix A of MSCP Subarea Plan) generally would not be considered cumulatively significant, provided the project is in full compliance with the MSCP Subarea Plan MSCP-covered species conditions of coverage and its implementing regulations.
- Impacts to state-listed or federally-listed species not covered by the MSCP may be considered cumulatively significant. Each future site-specific project will be evaluated on a case-by-case basis.

It is expected that many other sensitive species not analyzed for coverage under the MSCP will be adequately conserved through the MSCP's habitat-based mitigation plan. For projects within the CACPA, the project-specific biological resources report would identify those species and determine whether a cumulative impact still exists in light of the habitat level of protection provided by the MSCP. Depending on the size of the impact and the sensitivity of the species, certain non-covered species could be considered rare enough to conclude cumulatively significant impacts and may require additional avoidance, minimization, and/or mitigation measures to reduce these impacts to below a level of significance. As such, potential cumulative biological impacts are potentially significant.

7 Avoidance, Minimization, and Mitigation

Mitigation is the process of reducing significant impacts to below a level of significance. The process of identifying biological mitigation under the City's Biology Guidelines, ESL Regulations, and CEQA consists of two parts (1) the identification of significant biological impacts (as described in Section 6.0 above) and (2) the identification of the corresponding mitigation requirements to reduce the impacts to below a level of significance.

For projects within the CACPA that have the potential to impact biological resources, a biological resources report would be required to ensure consistency with the MSCP and City ESL regulations. The project-specific biological analysis would identify avoidance, minimization, and/or mitigation as appropriate, on a project-by-project basis, based on proximity to the MHPA and ESL lands and the resources documented on-site. The avoidance and minimization measures detailed in Section 7.1 are measures that may be applied on a project basis to guide projects to avoid impacts to sensitive biological resources through incorporation of project design features and minimization measures. Through incorporation of avoidance and minimization measures, significant impacts would typically be avoided or minimized to below a level of significance. Typical avoidance and minimization measures are discussed in detail in Section 7.1, below. Avoidance and minimization of impacts to sensitive resources is the preferred approach; however, not all project impacts can be avoided or minimized.

For unavoidable project impacts, the biological resources report will include a Mitigation Program that identifies a plan of action to reduce significant impacts to below a level of significance as required in the most recent version of the City's Biology Guidelines. The City's Biology Guidelines (City 2018b) requires mitigation to be based on the type and location of the impacted habitat, and for uplands, mitigation is also based on the location of the mitigation site. A typical Mitigation Program includes three required elements: (1) Mitigation Element (Section III.B.1 of the City's Biology Guidelines); (2) Protection and Notice Element (Section III.B.2 of the City's Biology Guidelines); and (3) Management Element (Section III.B.3 of the City's Biology Guidelines). The Mitigation Element, which is discussed in detail in Section 7.2.1 below, consists of a discussion of the amount (e.g., quantity) and the type (e.g., method) of mitigation. The Protection Element, which is discussed in Section 7.2.2 below, would identify the specific actions incorporated into the project to protect any areas offered as mitigation. The Management Element, which is discussed in detail in Section 7.2.3 below, would provide assurances that the mitigation would be adequately managed and monitored in a manner consistent with Section 1.5, Preserve Management of the MSCP Subarea Plan and/or Section 5.3.2 and Chapter 7 of the VPHCP, as appropriate.

7.1 Avoidance and Minimization Measures

Projects within the CACPA should be designed to include the following measures to avoid or minimize potential project impacts to sensitive biological resources to the maximum extent feasible. Prior to issuance of a Notice to Proceed (NTP), the Development Services Department (DSD) Environmental Designee (ED) shall review and approve all construction documents (plans, specifications, details, etc.) to ensure these requirements, considered either project conditions or part of the project's Mitigation Monitoring and Reporting Program (MMRP), are incorporated.

7.1.1 PRE-CONSTRUCTION MEASURES

The following avoidance and minimization measures should be incorporated prior to construction.

7.1.1.1 Biologist Verification

The owner/permittee shall provide a letter to the City Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist), as defined in the City's Biology Guidelines, 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.

7.1.1.2 Pre-Construction Meeting

The Qualified Biologist shall attend the pre-construction 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.

7.1.1.3 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's Biology Guidelines, MSCP Subarea Plan, ESL Ordinance, project permit conditions, CEQA, endangered species acts, and/or other local, state, or federal requirements.

7.1.1.4 Biological Construction Mitigation/Monitoring Exhibit

The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME), which includes the biological documents mentioned above. In addition, it shall include: (1) resource delineation, (2) avian construction avoidance areas/noise buffers/barriers, (3) other impact avoidance areas (e.g., avoidance of vegetation removal, limit vegetation trampling and trimming), and (4) any subsequent biological monitoring requirements determined by the Qualified Biologist and the City Assistant Deputy Director (ADD)/MMC necessary to assure impact avoidance. 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.

7.1.1.5 Avian Protection Requirements

To avoid any direct impacts to any species identified as listed, candidate, sensitive, or special status in the MSCP, removal of habitat that supports 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 for sensitive bird species in the proposed area of disturbance. The preconstruction 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 pre-construction survey to the City's DSD for review and approval prior to initiating any construction activities.

If nesting behaviors for any sensitive bird species are detected, a letter report in conformance with the City's Biology Guidelines and applicable state and federal laws (i.e., appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers) 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 shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's MMC Section or Resident Engineer and Biologist shall verify and approve that all measures identified in the report are in place prior to and/or during construction.

7.1.1.6 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 and fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.

7.1.1.7 Education

Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew to 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, clarify acceptable access routes/methods and staging areas).

7.1.2 CONSTRUCTION MEASURES

The following avoidance and minimization measures should be incorporated during construction.

7.1.2.1 Monitoring

All construction activities (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on the construction drawings 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 preconstruction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR), if needed for the project. If a CSVR is required, it shall be emailed to MMC on the first day of monitoring, the first week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

7.1.2.2 Subsequent Resource Identification

The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on site (e.g., flag plant specimens for avoidance during access). 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.

7.1.3 POST-CONSTRUCTION MEASURES

The following avoidance and minimization measures should be completed following construction.

7.1.3.1 Impact Verification

In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City's Biology Guidelines, ESL Regulations, MSCP Subarea Plan, CEQA, and other applicable local, state, and federal laws.

7.1.3.2 Final BCME and Biological Monitoring Report

The Qualified Biologist shall submit a final BCME and final biological monitoring report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

Projects within the CACPA that have the potential to impact biological resoruces, a biological resources report would be required to ensure consistenct with the MSCP and the City ESL Regulations. The project-specific biological analysis would identify avoidance, minimization, and/or mitigation as appropriate, on a project-by-project basis, based on proximitity to the MHPA and ESL lands and the resources documented on-site.

7.2 Mitigation Program

If impacts to biological resources cannot be avoided through implementation of the measures described in Section 6.1, above, then the project will include a Mitigation Program which identifies a plan of action to reduce significant impacts to below a level of significance. The Mitigation Program will consist of three required elements: (1) Mitigation Element, (2) Protection and Notice Element, and (3) Management Element. Each element is further described below. This Mitigation Program must be incorporated in the permit conditions and/or subdivision map and the construction specifications for public projects, and shown on the construction plans as appropriate. The biological resources report must also provide evidence that the nature and extent of the mitigation proposed is reasonably related (nexus) and proportional to the adverse biological impacts of the proposed development.

7.2.1 MITIGATION ELEMENT

The City's Biology Guidelines provide guidance for subsequent projects mitigation requirements in order to achieve consistency and equity among projects. Mitigation for specific projects may differ depending on site-specific conditions as supported by the project-level analysis.

Future subsequent projects should refer to the most recent version of the Biology Guidelines for guidance on mitigation requrements for upland and wetland habitas, mitgation methods, and species specific mitigation requirements.

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APPENDIX A

EXPLANATION OF STATUS CODES FOR SENSITIVE PLANT AND WILDLIFE SPECIES

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EXPLANATION OF STATUS CODES FOR SENSITIVE PLANT AND WILDLIFE SPECIES

FEDERAL AND STATE CODES

U.S. FISH AND WILDLIFE SERVICE (USFWS)

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

USFWS BIRDS OF CONSERVATION CONCERN (BCC)

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

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

USFWS FEDERAL CANDIDATE (FC) SPECIES

Federal candidate species are those for which the USFWS has on file "sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened, but for which preparation and publication of a proposal is precluded by higher-priority listing actions. [The USFWS] maintain[s] this list for a variety of reasons: to notify the public that these species are facing threats to their survival; to provide advance knowledge of potential listings that could affect decisions

of environmental planners and developers; to provide information that may stimulate conservation efforts that will remove or reduce threats to these species; to solicit input from interested parties to help us identify those candidate species that may not require protection under the [Endangered Species Act] or additional species that may require the Act's protections; and to solicit necessary information for setting priorities for preparing listing proposals" (Federal Register 70:90 [May 11, 2005]).

USFWS FEDERAL PROPOSED ENDANGERED (FPE) SPECIES

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

USFWS FEDERAL PROPOSED THREATENED (FPT) SPECIES

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

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW)

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

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

For plants with no current federal or state legal standing, "CEQA" refers to the fact that under the Act, impacts to species may be found significant under certain circumstances (e.g., the species are

regionally sensitive and/or are protected by a local policy, ordinance, or habitat conservation plan; or the impact involves interference with certain movements or migrations, with wildlife corridors or with nursery sites).

OTHER CODES AND ABBREVIATIONS

CALIFORNIA NATIVE PLANT SOCIETY CALIFORNIA RARE PLANT RANK (CRPR) CODES

LISTS

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

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

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

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

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

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

LIST/THREAT CODE EXTENSIONS

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

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

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

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

All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no extension.

Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.

MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) COVERED SPECIES

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

MSCP NARROW ENDEMIC

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

APPENDIX B

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP / MSCP CONDITIONS OF COVERAGE

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Plants					
Acanthomintha ilicifolia	85% of 8 major populations	15% of major populations	Site-specific preserve design and special measures/ management	Monitoring Plan – Site Specific (4 populations) and Management Plan/Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because all major populations are within the MHPA and each of the eight major populations will be conserved from 80-100 percent, with 85 percent conserved overall. This species is on the list of narrow endemics[1] which requires jurisdictions to specify and implement measures in their Subarea Plans to avoid or minimize impacts to all populations (including Asphalt, Inc., Sky Mesa, El Capitan sites) during project design. **Notes:** This species occurs on clay and gabbro soils which will be conserved at 28+ percent and 43+ percent respectively **Conditions:** Area specific management directives and the SPA for the Otay Lakes Resort area must include specific measures to protect against detrimental edge effects from the surrounding development.					
Agave shawii Shaw's agave none	100% of major populations	No major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because all known extant populations are within protected public land (Torrey Pines State Preserve and Border Field State Park). This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for the species. **Notes:** Additional important populations are found on military lands (Pt. Loma) which are not part of the MSCP. Populations at Pt. Loma aer not part of the MSCP, but will be conserved at a minimum of 91 percent in the Pt. Loma Ecological Reserve Area. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects.					
Ambrosia pumila San Diego ambrosia none	90% of the only major population	10% of the only major population	Site-specific preserve design and special measures/management	Monitoring Plan – Site Specific (major population) and Management Plans/Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered because 90 percent of the only major population in the MSCP will be conserved and the adjoining population at the radio tower site will be 100 percent conserved. This major population occurs on public lands in the Mission Trails Regional Park. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for species. **Notes:** The conservation level of this species has changed due to new information. Occurrences in the Spring Canyon, Otay Mesa (East of Otay Lakes), Otay Valley (along the Otay River), and Hidden Trails were misidentified and are now known to be a common species of *Ambrosia*. The small population within the Sna Diego National Wildlife Refuge (Rancho San Diego) will also be conserved and managed by the USFWS. **Conditions:** If more than 10 percent of the populations at the Mission Trails Regional Park is impacted, this species will no longer be a covered species. Area specific management directives must include monitoring of transplanted populations, and specific measures to protect against detrimental edge effects.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Aphanisma blitoides Aphanisma None	90% of potential habitat (261± acres) – 92% of southern foredunes (123± acres), 88% of southern coastal bluff scrub (138± acres)	10% of potential habitat (28+ acres) – 8% of southern foredunes (9± acres), 12% of southern coastal bluff scrub (17± acres)	Preserve design/landscape level with site-specific conservations(s)/management	Monitoring Plan – Habitat Based and Incidental	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 90 percent of its potential habitat will be conserved. **Notes:** Additional potential habitat occurs on military lands (Silver Strand, Imperial Beach) which are not a part of the MSCP. There are no known populations of this species.					
Arctostaphylos glandulosa var. *crassifolia* Del Mar manzanita FE/	91% of major populations and 67% of southern maritime chaparral habitat	9% of major populations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Site Specific	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Astragalus deanei Dean's milk vetch None	Unknown conservation level and therefore not covered by the plan.				NO
Astrogalus tener var. *titi* Coastal dunes milk vetch PE/CE	92% of southern foredunes (123± acres)	8% of southern foredunes (11± acres)	Preserve design/landscape level	Monitoring Plan – Habitat Based and Incidental	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 92 percent of the vegetative community that is potential habitat for this species will be conserved.

Notes: This species is not known to occur within the MSCP.

Conditions: Area specific management directives must provide for reintroduction opportunities, identify potential reintroduction sites, and include measures to prevent non-native species introductions. Any newly found populations shall be evaluated for inclusion in the preserve strategy through acquisition, like exchange, etc.

Baccharis vanessae Encinitas baccharis FT/CE	92% of major populations	8% of major populations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Site Specific (1 population) and Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 92 percent of the major populations will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for the species. **Conditions:** Based on BMPs, area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire; and appropriate male/female plant ratios. Management measures to accomplish this may include prescribed fire.					
Berberis nevinii Nevin's barberry none	100% of populations (occurrences are all persisting cultivars)	No natural populations present	Site-specific preserve design and special measures/management	Monitoring Plan – Habitat Based	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED. This species will be covered by the MSCP because persisting cultivars occurring in Spring Valley and Torrey Pines State Reserve will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for the species. **Notes:** Since no known natural populations occur within the plan area, development covered by the plan will not impact the species. Persistence of naturally occurring populations in the San Diego County is dependent on conservation efforts outside the MSCP area.					
Brodiaea filifolia Thread-leaved brodiaea PT/CE	88% of vernal pool habitat, 38% of grassland	12% of vernal pool habitat may be impacted, but his habitat is subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat based	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 88 percent of the vernal pool habitat and 38 percent of grassland habitat that are potential habitat for this species will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for the species if a population is identified in the future. **Notes:** This species is not known to occur within the MSCP area.					
Brodiaea orcuttii Orcutt's brodiaea None	All major populations in the MSCP area, 88% of vernal pool habitat, 38% of grassland	12% of vernal pool habitat may be impacted, but this habitat is subject to no net loss of function and value and 404(b)1 guidelines.	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Site Specific (4 populations) and Management Plans/Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because all of the major populations in the MSCP plan area (4 populations) will be conserved. This is Group A species in the County's proposed BMO[2]. **Notes:** Three major populations occur on Miramar military lands which are not part of the MSCP. Participating jurisdiction's guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. **Conditions:** The San Vincente population is identified as a critical population in the County's Subarea Plan and must be 100 percent conserved. Area specific management directives must include specific measures to protect against detrimental edge effects.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Calamagrostis densa Dense reed grass	91% of major populations	9% of major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 91% of major populations will be conserved.

Notes: Taxonomic reclassification has combined this taxon in a more common taxon, (*Calamagrostis koeleriodes) which is widespread.*

Conditions: Trail maintenance/placement to avoid human impacts must be addressed in area specific management directives. Enhancement opportunities using prescribed fire should be evaluated in the management plans. Area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire.

Calochortus dunnii Dunn's mariposa lily */CR	100% of major populations	No major populations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Photo Plot and Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 100 percent of the major populations will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for the species if a population is identified in the future. **Notes:** Fifty-two percent of one of the three major populations occurs within a major amendment area in the Otay Mountain area. (Take authorization amendments will be subject to public review through CEWZ and NEPA processes and require approval by CDFG and USFWS.) This species occurs on gabbro and metavolcanic soils and 43+ percent of the gabbro soils in the MSCP plan area are within the MHPA.					
Caulanthus stenocarpus Slender-pod jewelflower /CR	75% of major populations	25% of major populations	Site-specific preserve design and special measures/management	Monitoring Plan – Habitat Based and Incidental and Management/Directives.	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 3 or 4 (75 percent) of the major populations and 89 percent of occurrences will be conserved. The Wildcat Canyon, Poway/Sanrex, and Fortuna Mountain populations are identified as critical and will be 100 percent protected (San Diego County Subarea Plan requirement). **Note:** This tax has been combined with the more widespread and common *Caulanthus heterophyllus* var. *heterophyllus*. **Conditions:** Area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire. Management measures to accomplish this may include prescribed fire.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Ceanothus cyaneus Lakeside ceanothus none	75% of major populations	25% of major populations	Site-specific preserve design and special measures/management	Monitoring Plan – Habitat Based and Photo Plot	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSP because 3 of 4 (75 percent) of the major populations will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific measures[1] for the species if a population is identified in the future. This is a Group A species in the County's proposed BMO[2].

Conditions: Area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire. Management measures to accomplish this may include prescribed fire.

Ceanothus verrucosus Wart-stemmed ceanothus none	67% of major populations, and 64% of known localities	33% of major populations, and 36% of known localities	Site-specific preserve design and special measures/management	Monitoring Plan – Habitat Based and Photo Plot and Management Plan/s Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 67 percent of the major populations will be conserved, and special management actions will increase populations. This is a Group B species in the County's proposed BMO[2]. **Notes:** Additional important populations (30 percent of known populations) are found on military lands (Pt. Loma, Miramar) which are not part of the MSCP. **Conditions:** Revegetation efforts within appropriate habitats must include restoration of this species. Area specific management directives for the protected populations must include specific measures to increase populations. Area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire. Management measures to accomplish this may include prescribed fire. Any newly found populations should be evaluated for inclusion in the preserve strategy through acquisition, like exchange, etc.					
Chorizanthe orcuttiana Orcutt's spineflower	Unknown conservation level and therefore not covered by the plan.				NO
Cordylanthus maritimus ssp. *maritimus* Salt marsh bird's-beak FE/CE	100% of major populations	No major populations	Site-specific preserve design and special measures/management	Monitoring Plan – Site Specific (3 populations)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 100 percent of major populations within the MSCP plan area will be conserved. **Note:** Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional protection. One population of this species also occurs on military lands (Naval Radar Receiving Facility) which are not part of the MSCP. **Conditions:** Area specific management directives must 1) include measures to reduce threats and stabilize populations (e.g., relocation of footpaths, establishment of buffer areas, etc.), 2) address opportunities for reintroduction, and 3) include measures to enhance existing populations (e.g., protect and improve upland habitat for pollinators). There is a federal recovery plan for this species and management activities should to the extent possible help achieve the specified goals. Any newly found populations shall be evaluated for inclusion in the preserve strategy through acquisition, like exchange, etc.					
Cordylanthus orcuttianus Orcutt's bird's-beak None	75% of major populations	25% of major populations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Site Specific (4 populations) and Management Plans/ Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 3 of 4 (75 percent) major populations will be conserved. A portion of the Otay River Valley population lies outside of the MHPA but will be subject to the County's Biological Mitigation Ordinance (80-100 percent conservation). The Otay Ranch population (southeast of Lower Otay Lake) is considered conserved subject to landowner and agency agreement. **Condition:** AT the time permit amendments are proposed, strategies to provide protection for this species within the amendment area must be included. (Take authorization amendments are subject to public review through CEWX and NEPA processes and require approval by CDFG and USFWS.)					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Corethrogyne filaginifolia var. *linifolia* Del Mar Mesa sand aster none	48% of major populations, 57% of known localities and 67% of southern maritime chaparral	52% of major populations, 43% of known localities and 33% of southern maritime chaparral	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Site Specific	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 48 percent of major populations and 67 percent of its potential habitat (southern maritime chaparral) will be conserved. This is a Group A species in the County's proposed BMO[2].

Notes: This taxon has been merged with two other *Corethrogyne filaginifolia* varieties, and has been determined not to meet the taxonomic standards for listing.

Conditions: Area specific management directives for the protected populations must include specific measures to protect against detrimental edge effects to this species. Area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire. Management measures to accomplish this may include prescribed fire.

Cupressus forbessi Tecate cypress none	98% Tecate cypress forest	2% Tecate cypress forest	Preserve design/landscape level	Monitoring Plan – Habitat Based and Photo Plot	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 98 percent of major populations will be conserved, primarily on lands administered by BLM. **Conditions:** Area specific management directives for the protected populations will include specific measures to maintain or increase populations. Area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire. Management measures to accomplish this may include prescribed fire.					
Dudleya blochmaniae ssp. *brevifolia* Short-leaved dudleya PE/CE	100% of major populations	No major populations	Site-specific preserve design and special measures/management	Monitoring Plan –Site Specific (3 populations) and Management Plans/Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 100 percent of major populations will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional conservation measures[1] for the species. **Notes:** The populations on Del Mar Mesa, Carmel Mountain, and Crestview Canyon are subject to considerable edge effects. The wildlife agencies will work with the University of California, San Diego to protect and manage the University of California property adjacent to Skeleton Canyon for this species. **Conditions:** Area specific management directives must include 1) specific measures to protect against detrimental edge effects to this species, 2) species-specific monitoring and 3) maintenance of surrounding habitat for pollinators.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Dudleya variegata Variegated dudleya none	56% of major populations, 75% of known localities	44% of major populations, 25% of known localities	Site-specific preserve design and special measures/management	Monitoring Plan – Site Specific (5 populations) and Management Plans/Directives	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 56 percent of major populations and 75 percent of known localities will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional conservation measures[1] for the species.

Conditions: Area specific management directives must include species-specific monitoring and specific measures to protect against detrimental edge effects to this species, including effects caused by recreational activities. Some populations now occur within a major amendment area (Otay Mountain) and at the time permit amendments aer proposed, strategies to provide protection for this species within the amendment area must be included. (Proposed take authorization amendments will have public review through CEWX and NEPA processes and require approval by CDFG and USFWS.)

Dudleya viscida Sticky dudleya none	100% of major population	No major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 100 percent of the only major population within the MSCP will be conserved.

Notes: Persistence of this species in San Diego County depends largely on conservation efforts in the MHCP and Camp Pendleton areas.

Conditions: Area specific management directives must address specific measures to protect against detrimental edge effects.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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Ericameria palmeri ssp. *palmeri* Palmer's ericameria None	66% of major populations	34% of major populations	Site-specific preserve design and special measures/management	Monitoring Plan – Habitat based and Photo Plot and Management Plans/Directives	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 66 percent of major populations will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional conservation measures[1] for the species.

Notes: Impacts from these projects will be fully mitigated through avoidance, minimization and compensation. Two of the six major populations are subject to potential impacts from proposed road widening projects (Jamacha Blvd., Highways 54/94).

Eryngium aristulatum var. *parishii* San Diego button-celery FE/CE	82% of major populations, 88% of vernal pool habitat	18% of major populations may be impacted, but vernal pool habitat is subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Area Specific Management Directives (wetlands)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 82 percent of major populations and 8 percent of vernal pool habitat will be conserved. **Notes:** Additional important populations are found on military lands (Miramar) which are not part of the MSCP. Four populations (Proctor Valley, Otay River Valley, Del Mar Mesa, Spring Canyon) are likely to be subject to edge effects. This species has been added to the City of San Diego's list of narrow endemic species. Vernal pools which become part of the National Wildlife Refuge would be managed for the recovery of this species. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects.					
Erysimum ammophilum Coast wallflower none	92% of southern foredunes, 67^ of southern maritime chaparral	8% of southern foredunes, 33% of southern maritime chaparral	Preserve design/landscape level	Monitoring Plan – Habitat Based and Incidental	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 92 percent of southern foredunes and 67 percent of southern maritime chaparral vegetation communities (that are potential habitat for this species) will be conserved. **Notes:** Populations from San Diego County aer now being treated as *Erysimum capitatum*, a common species of wallflower.					
Ferocactus viridescens San Diego barrel cactus none	81% of major populations	19% of major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based and Photo Plot	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 81 percent of major populations will be conserved. This is a Group B species in the County's proposed BMO[2]. **Notes:** This is an abundant species that will be protected at varying levels in several subareas: Carmel Mountain, 64 percent; East Elliot, 75 percent; Marron Valley, 90 percent; Mission Trails Regional Park, 94 percent; Otay Mesa, 70 percent; Otay River Valley, 100 percent; Sweetwater Reservoir, 100 percent; Sycamore Canyon-Fanita Ranch, 50 percent. **Conditions:** Area specific management directives must include measures to protect this species from edge effects, unauthorized collection, and include appropriate fire management/control practices to protect against a too frequent fire cycle.					
Fremontodendron mexicanum Mexican flannel bush PE/CR	Insufficient distribution data and unknown conservation level; therefore, the species is not covered by the plan.				NO
Githopsis diffusa ssp. *filicaulis* Mission Canyon bluecup none	Unknown conservation level and therefore not covered by the plan.				NO
Hemizonia conjugens Otay tarplant PE/CE	66% of major populations	34% of major populations	Site-specific preserve design and special measures/management	Monitoring Plan – Site Specific (5 populations) and Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 66 percent of major populations will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional conservation measures[1] for the species. **Conditions:** MSCP coverage of this species requires avoidance of populations in the Otay River Valley through sensitive design and development of the active recreations areas as described in the Otay Ranch RMP and GDP. One of the seven major populations occurs within an amendment area (Proctor Valley). AT the time permit amendments are proposed, strategies to provide protection for this species within the amendment area must be include (proposed take authorization amendments will be subject to public review through CEWA and NEPA processes and take authorization amendments require approval by CDFG and USFWS). Area specific management directives must include specific measures for monitoring of populations and adaptive management of preserves (taking into consideration the extreme population fluctuations from year to year), and specific measures to protect against detrimental edge effects to this species.					
Hemizonia floribunda Tecate tarplant none	Unknown conservation levels and therefore not covered by the plan.				NO
Lepechinia cardiophylla Heart-leaved pitcher sage none	85% of major populations	15% of major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based and Photo Plot	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 85 percent of major populations will be conserved. The Iron Mountain population falls within a 100 percent conservation area. The other three major populations fall within the County's area of undetermined development status and will receive 80-100 percent conservation based on the County's proposed BMO[2] (Group A species). **Conditions:** Area specific management directives must include: 1) specific measures to protect against detrimental edge effects; 2) specific measures to promote increase of populations; and 3) specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire (management measures to accomplish this may include prescribed fire).					
Lepechinia ganderi Gander's pitcher sage none	All known locations	No known locations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Photo Plot and Management Plans/Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 100 percent of the known locations will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional conservation measures[1] for the species. **Conditions:** Area specific management directives must include: 1) specific measures to protect against detrimental edge effects and uncontrolled access; 2) measures to promote the increase of populations; and 3) specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire (management measures to accomplish this may include prescribed fire). One of the five major populations occurs within a major amendment (Otay Mountain). At the time permit amendments are proposed, strategies to provide protection for this species within the amendment area must be included (proposed take authorization amendments are subject to public review through CEWX and NEPA processes and require approval by CDFG and USFWS).					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Lotus nuttallianus Nuttal's lotus none	80-100% of major populations; 92% of southern foredune habitat	0-20% of major populations; 8% of southern foredune habitat	Preserve design/landscape level	Monitoring Plan – Site Specific (1 population)	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 80-100 percent of the major populations will be conserved and 92 percent of the habitat (southern foredunes) will be conserved.

Notes: Additional important populations are found on military lands (Imperial Beach, Silver Strand) which are not part of the MSCP . The USFWS is currently working with the Navy to provide protection for this species on Silver Strand.

Conditions: Area specific management directives must include specific measures to protect against detrimental edge effects.

Monardella hypoleuca ssp. *lanata* Felt-leaved monardella none	89% of major populations	11% of major populations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Photo Plot and Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 89 percent of major populations will be conserved. The Sequan Peak and Iron Mountain populations are identified as critical populations which will be 100 percent protected (San Diego County Subarea Plan). This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for this species. This is a Group A species in the County's proposed BMO[2]. **Notes:** Persistence of this species in San Diego County depends, in part, on conservation effects outside the MSCP area. **Conditions:** Area specific management directives must also include measures to protect against detrimental edge effects and uncontrolled access.					
Monardella linoides ssp. *viminea* Willowy monardella PE/CE	100% of major populations	No major populations	Preserve design/landscape level	Monitoring Plan – Site Specific (2 populations) and Management Plans/Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 100 percent of major populations will be conserved. Additional important populations are found on military lands (Miramar) which are not included as part of the MSCP. This species occurs in drainages and would receive protected based on Fish and Game Code 1600 agreements and federal wetlands permitting. This is a Group A species in the County's proposed BMO[2]. **Conditions**: Area specific management directives must include specific measures to protect against detrimental edge effects.					
Muilla clevelandii San Diego goldenstar none	73% of major populations and 38% of grasslands	27% of major populations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Site Specific (4 populations)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 8 of 11 major populations, 125 of 144 occurrences, and 38 percent of the grassland vegetation community will be conserved. The City of San Diego will avoid populations within its 25 percent encroachment area. The 4S Ranch population will be transplanted into an appropriate preserve area. This is a Group A species in the County's proposed BMO[2]. **Conditions:** Area specific management directives must include monitoring of the transplanted population(s), and specific measures to protect against detrimental edge effects to this species.					
Myosurus minimus ssp. *apus* Little mousetail none	The MSCP preserve does not include adequate habitat to conserve the species.				NO
Navarretia fossalis Prostrate navarretia PT/	63% of only major population, 88% of vernal pool habitat	37% of only major population, 12% of vernal pool habitat may be impacted, but this habitat is subject to no net loss of function and value and 404(b)1 guidelines	Site-specific preserve design and special measures/management	Area Specific Management Directives (wetlands)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 63 percent of the one major population and 88 percent of vernal pool habitat will be conserved. Federal wetland regulations will provide additional protection for vernal pool habitats. This is a Group A species in the County's proposed BMO[2]. **Notes:** State and federal transportation agencies will need to avoid or adequately mitigate the impacts to this species from the extension of State Route125. An additional small population is found on military lands (Miramar) and is not included as part of the MSCP. Vernal pools incorporated into the National Wildlife Refuge System would be managed for the recovery of this species. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects to this species, and must incorporate measures to conserve and maintain surrounding habitat for 1) pollinators and 2) as part of the hydrological system for the vernal pools.					
Nolina interrata Dehesa bear-grass PT/CE	90-100% of major populations	<10% of major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based and Photo Plot and Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because: 100 percent of the McGinty Mountain population will be conserved; half of the Sequan Peak population is under protected ownership and 80-100 percent of the other half will be conserved; and 80-100 percent of the Dehesa Peak population will be conserved under the County's proposed BMO (Group A species)[2]. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for this species. **Notes:** Acquisition of the remaining portions of the population on Sequan Peak is important and efforts are underway by CDFG. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects and management measures to maintain surrounding habitats for pollinators.					
Opuntia parryi var. *serpentina* Snake cholla none	75% of major populations and 67% of southern maritime chaparral	25% of major populations and 33% of southern maritime chaparral	Preserve design/landscape level with site-specific consideration(s)/management	Area Specific Management Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 75 percent of major populations and 67 percent of the southern maritime chaparral vegetation community will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for this species. **Notes:** Additional important populations are found on military lands (Pt. Loma) which are not part of the MSCP. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects to this species, and promote translocation opportunity where appropriate. The Otay Ranch project GDP and RMP require protection of 80 percent of existing occurrences, and transplantation of any impacted occurrences to restored areas of comparable size.					
Orcuttia californica California Orcutt grass FE/CE	86% of only major population, 88% of vernal pool habitat	14% of only major population may be impacted, but vernal pool habitat is subject to no net loss of function of value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Area Specific Management Directives (wetlands)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 86 percent of the one major population will be conserved. This species is on the MSCP's list of narrow endemics and therefore participating jurisdictions must specify in their Subarea Plans additional specific conservation measures[1] for this species. **Notes:** A population outside of the MHPA (J-13N pool complex) is conserved with dedicated open space as mitigation for the Ramona K-mart. The USFWS will work with the border patrol to minimize impacts to this species. An additional small population is found on military lands (Miramar) and is not part of the MSCP. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects to this species and measures to maintain surrounding habitats for pollinators.					
Pinus torreyana Torrey pine none	100% of native population	No major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED 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.					
Pogogyne abramsii San Diego mesa mint FE/CE	88% of vernal pool habitat	12% of vernal pool habitat may be impacted, but this habitat is subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Area Specific Management Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 88 percent of its potential habitat (vernal pool habitat) will be conserved. Federal wetland regulations will provide additional protection for vernal pool habitats. **Notes:** The three major populations in the county occur on military lands (Miramar) which are not part of the MSCP. The City of San Diego has added this species to its narrow endemics list. The population at Montgomery Field was mistakenly omitted from the original mapping and now has been included. This population will be conserved and managed by the City of San Diego. Vernal pools included in the National Wildlife Refuge would be managed for recovery of this species. **Conditions:** Preserve management plan must include measures to: 1) protect against detrimental effects; 2) maintain surrounding habitat for pollinators; and 3) maintain pool watershed areas.					
Pogogyne nudiuscula Otay Mesa mint FE/CE	91% of the major population, 88% of vernal pool habitat	0% of the major population may be impacted, and this habitat is subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Area Specific Management Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 91 percent of the one major population will be conserved, and federal wetland regulations will provide additional protection for vernal pool habitats. **Notes:** Twenty-six percent of the stockpan soils will be conserved, which will provide for enhancement opportunities for this species. The City of San Diego has added this species to their narrow endemics list. Vernal pools included in the National Wildlife Refuge would be managed for recovery of this species. The RMP for the Otay Ranch project includes protection for vernal pools with sensitive species. **Conditions:** Preserve management plan must include measures to: protect against detrimental edge effects; maintain surrounding habitat for pollinators; and maintain pool watershed areas.					
Rosa minutifolia Small-leaved rose /CE	Only known MSCP occurrence transplanted into preserve, propagation and restoration in appropriate habitat		Site-specific preserve design and special measures/management	Area Specific Management Directives (1 population)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERD

There is only one known occurrence of this species in the MSCP on Otay Mesa near Dennery Canyon. The occurrence may be a single clone, and some evidence suggests it may be a cultivar. This species will be covered by the MSCP because the only known occurrence will be conserved through the California Terraces project.

The following conditions for small-leaved rose conservation are required in the CDFG 2081 as part of the California Terraces project:

1. The rose population shall be salvaged, propagated, and transplanted to a new location that will support a healthy, reproducing population in perpetuity. This goal shall be achieved through a five year program that includes site improvement, propagation, transplantation, and monitoring. (a) The rose population shall be transplanted to a suitable open space preserve location on the Otay Mesa or to an alternative location subject to Department approval. Criteria in site selection shall include similar habitat, slope, aspect, soils, and hydrology as present on the existing rose site. (b) Propagation and transplanting of the rose population shall be implemented by a qualified native plant nursery/habitat restoration contractor (hereinafter Restoration Contractor), acceptable to the department, and under supervision of a qualified botanist. The rose propagation shall take place over a two year period. Rose plants to be extirpated shall be salvaged through: (i) seed collection; (ii) preparation of cuttings from rose canes; and (iii) salvage of underground parts and transplantation. (d) Transplantation of the rose clone shall commence during the period of October-December 1997. The remaining rose clone shall be cut into a minimum of 200 clumps. Each clump possessing roots and de-caned stems shall be planted on the HM lands as prescribed by a qualified botanist.

2. No removal of the rose population for a two (2) year period commencing from the date of planting propagated rose plants at the approved locations.

3. The progress of the rose mitigation effort shall be assessed through measurements and observations for a period of at least five (5) years following implementation of rose transplantation commencing in December 1997 and ending in July 2002. Factors to be monitored shall include growth, survival and/or establishment rate of the species, presence of introduced weeds, erosion, effects of herbivores, and any other factors important to the success of the mitigation effort. Community structure and species diversity at the mitigation site shall also be assessed. (a) Transplant success criteria over a five (5) year period shall include: (i) measurable annual growth on a minimum of 50 percent of the rose plants; and (ii) flowering of 50 percent of the rose plants during a minimum of one flowering season. In the event that success criteria are not met, the project applicant shall implement remedial measures subject to department approval.

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Santureja chandleri San Miguel savory none	80-100% of future identified occurrences	0-20%	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Photo Plot	YES
DETAILS OF RATIONALE FOR IDENTIFY SPECIES AS COVERED This species will be covered by the MSCP because it will be conserved at the 80+ percent level. The County will add this species to Group A or B of the County's proposed BMO[2]. **Conditions:** Area specific management directives must include specific management measures to address the autecology and natural history of the species and to reduce the risk of catastrophic fire. Management measures to accomplish this may include prescribed fire. This species will be conserved at the 80+ percent level.					
Senecio ganderi Gander's butterweed */CR	90-100% of major populations	<10% of major populations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Photo Plot	YES

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DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 90-100 percent of known major populations would be conserved. Half of the Sequan Peak population is under protected ownership and 80-100 percent of the other half will be conserved, and 90-100 percent of the McGinty Mountain populations will be conserved. The El Cajon Mountain (between El Capitan and San Vicente Reservoir) population is identified as critical which requires 100 percent protection based on the San Diego County Subarea Plan. Occurrences in the County's areas of undetermined development status will receive 80-100 percent protection under the County's proposed BMO[2] (Group A species). **Notes:** This species is often associated with gabbro soils which will be conserved at the 43+ percent level. Acquisition of the remaining portions of the population on Sequan Peak is important and efforts are underway by CDFG. **Conditions:** Area specific management directives must include: 1) specific measures to protect against detrimental edge effects to this species; and 2) measures to address the autecology and natural history of the species.					
Solanum tenuilobatum Narrow-leaved nightshade none	90% of major populations	10% of major populations	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Photo Plot and Management Plans/Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 90 percent of major populations will be conserved. Two smaller populations, Silverwood and Fernbrook, are identified as critical and will be 100 percent protected in the San Diego County Subarea Plan. **Notes:** This species is now taxonomically included in *Solanum xanti.*					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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Tetracoccus dioicus Parry's tetracoccus none	80-100% of major populations	0-20% of major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based and Photo Plot	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 80-100 percent of major populations will be conserved.

Notes: Fourteen of 33 (43 percent) small populations are already under protected ownership. The Dehesa population is identified as critical and will be 100 percent protected in the San Diego County Subarea Plan. Occurrences in the County's areas of undetermined development status will receive 80-100 percent protection under the County's proposed BMO[2] (Group A species). Acquisition of the remaining portions of the population on Sequan Peak is important and efforts are underway by CDFG. This species is often associated with gabbro soils and 43+ percent of the gabbro soils are within the MHPA.

Conditions: Area specific management directives must include specific measures to protect against detrimental edge effects to this species.

ANIMALS		
Invertebrates		
Euphydryas editha quino Quino checkerspot butterfly PE/	Unknown conservation level and lack of assurances that plan will protect preferred habitat (mesa tops/grassland) and connection to known sources populations. Therefore, not covered by the plan.	NO
Euphyes vestries harbisoni Harbison's dun skipper none	Unknown conservation level and therefore not covered by the plan based on insufficient distribution and life history data.	NO

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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Lycaena thornei Hermes copper butterfly none	Unknown conservation level and therefore not covered by the plan based on insufficient distribution and life history data.				NO
Mitoura thronei Thorne's hairstreak butterfly none	98% of Tecate cypress forest (larval host plant)	2% of Tecate cypress forest	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 98 percent of the major populations of its larval host plant, Tecate cypress, will be conserved. Most of the Tecate cypress forest occurs on BLM lands.

Conditions: Area specific management directives must manage for the host species (Tecate cypress). Management measures to accomplish this may include prescribed fire.

Panoquina errans Salt marsh skipper none	93% of salt marsh habitat (1,700± acres)	7% of salt marsh habitat (120± acres) may be impacted, but is subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 93 percent of its potential habitat will be conserved. **Conditions:** Area specific management directives must include measures to: control exotic weeds and invertebrate predators (where appropriate), and control access to saltmarsh habitat.					
Branchinecta sandiegoensis San Diego fairy shrimp PE/	88% of vernal pool habitat	12% of vernal pool habitat may be impacted, but this habitat is subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Area Specific Management Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 88 percent of its potential habitat (vernal pool habitat) will be conserved. Federal and local wetland regulations will provide additional protection for vernal pool habitats. The Otay Ranch project RMP and GDP require protection for vernal pools with sensitive species. **Notes:** Additional important habitat for this species occurs on military lands (Miramar) and is not part of the MSCP. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects to this species.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Streptocephalus woottonii Riverside fairy shrimp FE/	88% of vernal pool habitat	12% of vernal pool habitat may be impacted, but this habitat is subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Area Specific Management Directives	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 88 percent of its potential habitat (vernal pool habitat) will be conserved. Federal and local wetland regulations will provide additional protection for vernal pool habitats. The Otay Ranch project RMP and GDP require protection for vernal pools with sensitive species.

Notes: Additional important habitat for this species occurs on military lands (Miramar) and is not part of the MSCP.

Conditions: Area specific management directives must include specific measures to protect against detrimental edge effects to this species.

Reptiles and Amphibians

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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Bufo microscaphus californicus Arroyo southwestern toad FE/SSC	All known locations (Cottonwood Creek in Marron Valley, San Vicente Creek and Santa Ysabel Creek in San Pasqual Valley, Sweetwater River, and Otay River), 78% riparian wetland areas in suitable habitat	Upland habitats adjacent to riparian wetlands (potential habitat) in undetermined status areas in Sloan Canyon – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Site Specific (7 locations) and Management Plans/Directives	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because the MHPA preserves all known locations, and 90-95 percent of the upland habitats within the Marron Valley area will be conserved. Impacts to upland habitats within 1 km of riparian corridors within the MHPA will be minimized during project review by CDFG and USFWS. Take authorization holders must minimize impacts to upland habitats which provide habitat for this species which are: within the MHPA and are within 1 km of riparian habitat which supports or is likely to support Arroyo toad. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting no net loss of wetlands.

Notes: Important habitat areas include the San Diego River below El Capitan Reservoir, San Vicente Creek between Sweetwater Reservoir and Loveland Reservoir, Dulzura Creek, San Pasqual Valley from Lake Hodges to Boden Canyon, Otay River, Jamul Creek, Cedar Creek and Sycamore Creek.

Conditions: Area specific management directives must address the maintenance of Arroyo toad through control of non-native predators, protection and maintenance of sufficient suitable low gradient sandy stream habitat (including appropriate water quality) to meet breeding requirements, and preservation of sheltering and foraging habitat within 1 km of occupied breeding habitat within preserved lands. Area specific management directives must include measures to control human impacts to the species within the preserve (e.g., public education, patrol, etc.).

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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Rana aurora draytoni California red0-legged frog FT/SSC	72% of riparian habitats and fresh water marsh (9,500± acres	28% of riparian habitats and fresh water marsh (3,800± acres) -) wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species is believed to be extirpated from the County. Although unlikely, additional survey effort may detect red-legged frog. Therefore, this species will be covered by the MSCP because 70 percent of its potential habitat will be conserved. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands.

Conditions: Area specific management directives must provide for management of any new discovered populations within the preserve.

Clemmys marmorata pallida Southwestern pond turtle /SSC	72% of riparian habitats and fresh water marsh (9,501 acres)	28% of riparian habitats and fresh water marsh (3,800± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 72 percent of its potential habitat will be conserved. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. **Conditions:** Maintain and manage a 1500 foot area around known locations within preserve lands for the species. Within this impact avoidance area, human impacts will be minimized, non-native species detrimental to pond turtles controlled/removed and habitat restoration/enhancement measures implemented.					
Cnemidophorus hyperythrus beldingi Orange-throated whiptail /SSC	59% of potential habitat (129,600± acres) – 38% of known point occurrences	41% of potential habitat (89,800± acres) – 38% of known point occurrences	Preserve design/landscape level	Monitoring Plan – Site Specific (pit traps at 12 locations)	YES

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DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 59 percent of its potential habitat and 62 percent of known point occurrences will be conserved. Habitat linkages between large blocks of protected lands are conserved in a functional manner. Monitoring of populations and adaptive management of preserves will occur as a result of plan implementation. **Notes:** This species also occurs extensively on military lands. **Conditions:** Area specific management directives must address edge effects.					
Phrynosoma coronatum blainvillei San Diego horned lizard /SSC	60% of potential habitat (132,000± acres) – 64% of coastal sage scrub, 54% of chaparral, 44% of coastal sage/chapparal, 80% of riparian scrub – 63% of known point occurrences	40% of potential habitat (89,700± acres) – 37% of known point occurrences	Preserve design/landscape level	Monitoring Plan – Site Specific (pit traps at 12 locations)	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 60 percent of its potential habitat and 63 percent of known point occurrences will be conserved. Habitat linkages between large blocks of protected lands are conserved in a functional manner. Monitoring of populations and adaptive management of preserves will occur as a result of plan implementation. **Conditions:** Area specific management directives must include specific measures to maintain native ant species, discourage the Argentine ant, and protect against detrimental edge effects to this species.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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Birds					
Pelecanus occidentalis californicus California brown pelican FE/CE	91% of roosting and foraging habitat (2,800± acres) – 93% of southern coastal saltmarsh, 88% of natural flood channel, 90-95% of beach outside of intensively used recreational beaches	9% of roosting and foraging habitat (270± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 91 percent of roosting and foraging habitat within the plan area will be conserved. No new development of beaches is authorized which will result in 90-95 percent protection of beach habitat that is outside of intensively used beach areas.

Notes: Most of the important roosting and foraging habitat occurs on military lands and waters under Port Authority jurisdiction which are not included as part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. This species is a common to very common non-breeding visitor which uses mud flats, piers, jetties, etc., to roost and forages primarily in coastal ocean waters and San Diego.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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Egretta rufescens Reddish egret none	92% of potential habitat (2,700± acres) – 93% of southern coastal saltmarsh, 99% of salt pan, 88% of natural flood channel	8% of potential habitat (230± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 90 percent of its potential habitat will be conserved.

Notes: Additional important habitat occurs in waters under Port Authority and military jurisdiction which are not included as part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. This species forages is shallow lagoons, mud flats, tidal channels and salt marsh. This species is a rare visitor in fall and winter and a casual visitor in spring and summer, but does not nest in San Diego County.

Plegadis chihi white-faced ibis */SSC	78% of potential habitat (1,200± acres) – 68% of freshwater marsh, 88% of natural flood channel, additionally 1,800± acres of potentially habitat agricultural land will be conserved	26% of potential habitat (300± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

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DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 78 percent of its potential habitat will be conserved. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. The preserve management plan for the City of San Diego cornerstone lands must include protection and management of potential nesting habitat at Lake Hodges. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects to this species.					
Branta canadensis Canada goose none	8,200± acres of potencial habitat	1,100± acres of potential habitat – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED Although not considered sensitive, this species has aesthetic and intrinsic values, and is a regulated game species thereby being an important species to protect. This species will be covered by the MSCP because 8,200± acres of its potential habitat will be conserved, including open water areas for loafing. Participating jurisdiction's guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Haliaeetus leucocephalus Bald eagle FT/CE	89% of potential foraging habitat (wetlands) (5,719± acres), 68% of freshwater marsh, 92% of open water. In addition, foraging opportunities (carrion, etc.) on 100,000+ acres will be conserved.	11% of potential foraging habitat (wetlands) (692± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 89 percent of its potential foraging habitat (open water and freshwater marsh) will be conserved. Bald eagles are a rare winter visitor which require perching and roosting sites adjacent to open water and marshes. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands.					
Circus cyaneus Northern harrier /SSC	42% of potential nesting habitat (12,000± acres) – 93% of saltmarsh, 68% of freshwater marsh and 38% of grasslands, - 85,000± acres of potential foraging habitat	48% of potential nesting habitat (16,300± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Management Plans/Directives (nest sites)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species is an uncommon migrant and winter visitor, and rare summer resident/breeder. This species will be covered by the MSCP because 42 percent of its potential nesting habitat, and 85,000± acres of its potential foraging habitat will be conserved. The plan will not adversely affect the species' long-term survival.

Notes: Harriers tolerate patchiness in their habitat, exhibit nest area fidelity, and forage within four miles of their nests. Additional conservation of grassland habitats should be a priority and one of the primary factors in the design of preserves in the major amendment areas. Participating jurisdiction's guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. Active nesting areas include:

Tijuana River Valley – The City of San Diego Subarea Plan includes conservation of two known nesting sites in the Tijuana River Valley, and maintenance of some agricultural lands (available for foraging harriers) within the Tijuana River Valley Regional Park. The Tijuana National Estuarine Sanctuary will continue to enhance marshlands and manage for nesting harriers. Some existing grasslands and agricultural lands at the outer limits of the foraging distance for nesting harriers will be developed. With the addition of over 4,000 acres of agricultural and disturbed lands to the City of San Diego's preserve (in comparison with the March 1995 preserve design), adequate foraging areas within this area are conserved. Food production for harriers on preserve lands can be enhanced.

South San Diego Bay/Sweetwater Marsh – The City of San Diego Subarea Plan includes conservation of one known nesting site in the Sweetwater Marsh area. All nesting and foraging habitat within four miles of the known nesting site will be preserved. Upland habitat enhancement exist at the D Street fill area.

Proctor Valley – Proctor Valley includes an historical nesting location (1970s). Over 80 percent of the Proctor Valley area will be conserved with most of the development occurring in the upper portion of the valley, away from the more likely nesting areas.

Conditions: Area specific management directives must: manage agricultural and disturbed lands (which become part of the preserve) within four miles of nesting habitat to provide foraging habitat; include an impact avoidance area (900 foot or maximum possible within the preserve) around active nests; and include measures of maintaining winter foraging habitat in preserve areas in Proctor Valley, around Sweetwater Reservoir, San Miguel Ranch, Otay Ranch east of Wueste Road, Lake Hodges, and San Pasqual Valley. The preserve management coordination group shall coordinate efforts to manage for wintering northern harriers' foraging habitat within the MSCP preserves.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Accipiter cooperii Cooper's hawk /SSC	59% of potential foraging habitat (133,400± acres) (47% of oak woodland, 58% of oak riparian, 64% of coastal sage scrub, 54% of chapparal, 44% of coastal sage scrub/chaparral – 57% of known localities) and 52% (5,705± acres) of potential nesting habitat (58% of oak riparian and 47% of oak woodland)	41% of potential foraging (93,900± acres) and 48% of potential nesting habitat (5,200± acres)	Preserve design/landscape level with the site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Management Plans/Directives (site specific nest territories)	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 59 percent of potential foraging and 52 percent of potential nesting habitat and 92 percent of known occurrences will be conserved.

Conditions: In the design of future projects within the Metro-Lakeside-Jamul segment, design of preserve areas shall conserve patches of oak woodland and oak riparian forest of adequate size for nesting and foraging habitat. Area specific management directives must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Buteo swainsoni Swainson's hawk /CT	22% of foraging habitat (11,600± acres) – 38% of grassland, 6% of agricultural fields	78% of foraging habitat (42,000± acres)	Preserve design/landscape level	Monitoring Plan – Habitat Based (10 grassland locations)	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species is an extremely rare visitor during migration which forages in grasslands and agricultural fields. This species will be covered by the MSCP because more than 11,000 acres of potential foraging habitat will be conserved.

Notes: The plan will not adversely affect the species' long-term survival. Additional conservation of grassland habitats should be a priority and one of the primary factors in the design of preserves in the major amendment areas. This species is a rare migrant through the area.

Buteo regalis Ferruginous hawk */SSC	22% of foraging habitat (11,600± acres) – 38% of grassland, 6% of agricultural fields	78% of foraging habitat (42,000± acres)	Preserve design/landscape level	Monitoring Plan – Habitat Based (10 grassland locations)	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered because 11,600± acres of potential foraging habitat will be conserved. This species is an uncommon winter visitor which forages in grasslands and agricultural fields.

Notes: The plan will not adversely affect the species' long-term survival. Additional conservation of grassland habitats should be a priority and one of the primary factors in the design of preserves in the major amendment areas. This species is not known to nest within the MSCP study area.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Aquila chrysaetos Golden eagle BEPA/SSC	53% of potential foraging/nesting habitat (coastal sage scrub, chaparral, grassland and oak woodland) 139,000± acres) – large blocks of habitat conserved in the eastern portion of the plan area where active nesting territories exist. Of the 11 active nesting territories (based on information from the Golden Eagle Survey Project, San Diego) which are fully or partially within the MSCP plan area, 7 nesting territories should remain viable.	Viability of 4 of the 11 active nesting territories (partially or fully within the plan area)	Preserve design/landscape level with the site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Management Plans/Directives (site specific nest territories)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 53 percent of potential foraging and nesting habitat will be conserved. Local populations are not critical to, and the plan will not adversely affect the species' long-term survival.

Notes: Fourteen active nesting territories occur primarily outside of the MSCP area (east and northeast of the plan area). Plans developed for these areas should include measures to conserve adequate habitat to maintain their viability. The following is an analysis of the plan's effects on each nesting territory.

1. Rancho San Diego – development under the plan will result in <10 percent loss of habitat in the nesting territory, nesting territory should remain viable;
2. East Otay Mountain – development under the plan will result in <5 percent loss of habitat in the nesting territory, nesting territory should remain viable;
3. Sequan Peak – between 30 percent and 40 percent of the habitat in the nesting territory could be developed, the nesting territory may not remain viable, but the steepness of the areas which could be developed may preclude enough development to keep the territory viable;
4. Loveland Reservoir – development of under the plan will result in >20 percent loss of habitat in the nesting territory, nesting territory should remain viable;
5. Lake Jennings – between 40 percent and 60 percent of the habitat in the nesting territory could be developed under the plan, the nesting territory may not remain viable;
6. El Capitan territory – development under the plan will result in <15 percent loss of habitat within the nesting territory, the territory should remain viable;
7. San Vicente Reservoir – development under the plan will result in <30 percent of the high quality golden eagle habitat being developed, although low quality habitat (steep chaparral) could be developed resulting in greater habitat loss within the nesting territory (although high density development is not likely to occur because of the steep sloes), the nesting territory is may not be viable;

8 and 9. San Pasqual (two nesting territories) – development under the plan will result in <20 percent loss of habitat in the nesting territory and both nesting territories should remain viable:

10. Santee – development under the plan could result in 30 percent-40 percent loss of habitat in the nesting territory and the nesting territory may not remain viable, although a significant amount of foraging habitat (Miramar and Mission Trails) occurs just outside of the territory and within normal foraging distances; and
11. Lake Hodges – development under the plan will result in <20 percent loss of habitat in the nesting territory, the nesting territory should remain viable.

Conditions: Area specific management directives for areas with nest sites must include measures to avoid human disturbance while the nest is active, including establishing a 4,000 foot disturbance avoidance area within preserve lands. Area specific management directives must also include monitoring of nest sites to determine use/success.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Falco peregrinus anatum American peregrine falcon FE/CE	61% of historic nesting sites – 58% of foraging habitat (89,400± acres) – 93% southern coastal saltmarsh, 99% of saltpan, 68% of freshwater marsh, 91% of open water, 88% of natural flood channel, 64% of coastal sage scrub, 38% of grassland	39% of foraging habitat (57,000± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because more than 89,000 acres of potential foraging habitat will be conserved.

Notes: This species has very low population numbers in the County, being primarily a rare fall and winter visitor. All three nest sites occur outside of the MHPA: one on Coronado Bridge, one on a crane in Port Authority jurisdiction, and one on Pt. Loma federal lands. Participating jurisdictions; guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands.

Rallus longirostris levipes Light-footed clapper rail FE/CE	93% of potential habitat (1,700± acres of southern coastal saltmarsh)	7% of potential habitat (120± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Site-specific preserve design and special measures/management	Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 93 percent of its habitat will be conserved. **Notes:** Additional important habitat is found on military lands (Silver Strand) which are not included as part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. **Conditions:** Area specific management directives must include active management of wetlands to ensure a healthy tidal saltmarsh environment, and specific measures to protect against detrimental edge effects to this species.					
Charadrius alexandrinus nivosus Western snowy plover FT/SSC	93% of potential habitat (650± acres) 99% of saltpan, 90-95% of beach outside of intensively used recreational beaches	7% of potential habitat (467% of potential habitat (46± acres) –wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Area Specific Management Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 93 percent of its potential habitat will be conserved. All breeding activity of western snowy plovers in the County occurs in saltpan habitat. No new development of beaches is authorized which will result in 90-95 percent conservation of beach habitat that is outside of intensively used beach areas. **Notes:** Additional important habitat is found on military lands (Silver Strand) which are not part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. **Conditions:** Area specific management directives must include protection of nesting sites from human disturbance during the reproductive season, and specific measures to protect against detrimental edge effects to this species. Incidental take (during the breeding season) associated with maintenance/removal of levees/dikes is not authorized except as specifically approved on a case-by-case basis by the wildlife agencies.					
Charadrius montanus Mountain plover C/SSC	22% of potential foraging habitat (11,600± acres) – 38% of grassland, 6% of agricultural fields	78% of potential foraging habitat (41,100± acres)	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because over 11,000 acres of potential foraging habitat will be conserved. The plan will not adversely affect the species' long-term survival. **Notes:** This species is an uncommon winter visitor (primarily in the Tijuana River Valley) which forages in grasslands and agricultural fields. The MSCP conservation requirement for the Tijuana River Valley area is primarily 94 percent with a small area identified as 75 percent. **Conditions:** Management Plans for the Tijuana River Valley should specifically address the habitat requirements for this species.					
Numenius americanus Long-billed curlew */SSC	24% of potential foraging habitat (13,500± acres) – 93% of southern coastal saltmarsh, 99% of salt pan, 38% of grassland, 6% of agricultural fields	77% of potential foraging habitat (42,800± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species is a fairly common migrant and winter visitor. **Notes:** This species will be covered by the MSCP because more than 13,500 acres of potential foraging habitat will be conserved. The plan will not adversely affect the species' long-term survival. Additional conservation of grassland habitats should be a priority and one of the primary factors in the design of preserves in the major amendment areas. Additional habitat occurs on military lands (Silver Strand, San Diego Bay) which are not part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Sterna elegans Elegant tern */SSC	93% of potential habitat (650± acres) 99% of saltpan, 90-95% of beach outside of intensively used recreational beaches	10% of potential habitat (46± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Area Specific Management Directives	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 93 percent of its potential habitat will be conserved.

Notes: All breeding activity of elegant terns in the County occurs in saltpan habitat. No new development of beaches is authorized which will result in 90-95 percent protection of beach habitat that is outside of intensively used beach areas. Additional important foraging habitat (bay waters) is under the jurisdiction of the Port Authority and military, and are not part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands.

Conditions: Area specific management directives must include protection of nesting sites from human disturbance during reproductive season, and specific measures to protect against detrimental edge effects to this species. Incidental take (during the breeding season) associated with maintenance/removal of levees/dikes is not authorized except as specifically approved on a case-by-case basis by the wildlife agencies.

Sterna antillarum browni California least tern FE/CE	93% of potential habitat (650± acres) 99% of saltpan, 90-90% of beach outside of intensively used recreational beaches	7% of potential habitat (46± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Area Specific Management Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 93 percent of its potential habitat will be conserved. **Notes:** No new development of beaches is authorized which will result in 90-95 percent conservation of beach habitat that is outside of intensively used beach areas. Additional important breeding habitat occurs on military lands (North Beach, Silver Strand, Naval Training Center) and are not part of the MSCP. Additional important foraging habitat (bay waters) is under the jurisdiction of the Port Authority and the military, and are not part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. **Conditions:** Area specific management directives must include protection of nesting sites from human disturbance during reproductive season, predator control, and specific measures to protect against detrimental edge effects to this species. Incidental take (during the breeding season) associated with maintenance/removal of dikes/levees, beach maintenance/enhancement is not authorized except as specifically approved on a case-by-caser basis by the wildlife agencies.					
Speotyto cunicularia hypugaea Burrowing owl */SSC	4 known locations (Spring Canyon, northeast of Brown Field, Lake Hodges), 8 known locations within major amendment area (south County segment), 4,000± acres of known habitat	8 known locations (Otay Ranch, San Pasqual Valley and South County at border), 5,000± of known habitat	Site-specific preserve design and special measures/management	Monitoring Plan – (10 grassland locations) and Area Specific Management Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 5,770± acres of potential and 4,000± acres of known suitable habitat (grassland vegetation community) will be conserved, including portions of Spring Canyon, San Pasqual Valley, Lake Hodges, Otay Mesa northeast of Brown Field, Otay Ranch, Otay River Valley, and Future Urbanizing Area 4.

Notes: Habitat enhancement opportunities for the species occur in the Spring Canyon, San Pasqual Valley, Lake Hodges, Otay Mesa northeast of Brown Field, Otay Ranch, Otay River Valley and Future Urbanizing Area 4. The wildlife agencies will enhance and manage lands within their ownership to allow for relocation of burrowing owls, particularly in conjunction with burrowing owl removal programs in areas where their presence conflicts with nesting of California least terns. The wildlife agencies will attempt to achieve additional conservation of occupied burrowing owl habitat or habitat suitable for restoration using state and federal acquisition resources. Persistence of the species in San Diego County is also dependent on adequate conservation of known concentrations in the San Maria Valley in the vicinity of Ramona.

Conditions: During the environmental analysis of proposed projects, burrowing owl surveys (using appropriate protocols) must be conducted in suitable habitat to determine if this species is present and the location of active burrows. If burrowing owls are detected, the following mitigation measures must be implemented: within the MSHPA, impacts must be avoided; outside of the MHPA, impacts to the species must be avoided to the maximum extent practicable; any impacted individuals must be relocated out of the impact area using passive or active methodologies approved by the wildlife agencies; mitigation for impacts to occupied habitat (at the Subarea Plan specified ratio) must be through the conservation of occupied burrowing owl habitat or conservation of lands appropriate for restoration, management and enhancement of burrowing owl nesting and foraging requirements.

Management plans/directives must include: enhancement of known, historical and potential burrowing owl habitat; and management for ground squirrels (the primary excavator of burrowing owl burrows). Enhancement measures may include creation of artificial burrows and vegetation management to enhance foraging habitat. Management plans must also include: monitoring of burrowing owl nest sites to determine use and nesting success; predator control; establishing a 300 foot-wide impact avoidance area (within the preserve) around occupied burrows.

Eight known burrowing owl location occur within major amendment areas of the South County Segment of the County Subarea Plan and the conservation of occupied burrowing owl habitat must be one of the primary factors preserve design during the permit amendment process.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Empidonax traillii extimus Southwestern willow flycatcher FE/CE	76% of potential habitat (4,900± acres) – 90% of riparian woodland, 80% of riparian scrub – 88% of known localities	24% of potential habitat (1,400± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Area – Specific Management Directives	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 4,900± acres (76 percent) of potential habitat will be conserved.

Conditions: Jurisdictions must require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and incorporate mitigation measures consistent with the 404(b)1 guidelines into the project. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. For new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds, jurisdictions must require monitoring and control of 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 1 and May 1 (i.e., outside of the nesting period).

Camphylorhynchus brunneicapillus couesi Coastal cactus wren */SSC	60% of maritime succulent scrub habitat in large contiguous blocks (850)± acres)	40% of maritime succulent scrub habitat in small isolated blocks (580± acres)	Site-specific preserve design and special measures/management	Monitoring Plan – Site Specific (31 locations) and Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species is covered because four of five major populations are conserved, including populations at Lake Hodges/San Pasqual Valley, Lake Jennings, South Sweetwater Reservoir/San Miguel Ranch and Salt Creek/Otay Mesa and 60 percent (850± acres) will be conserved allowing for expansion of the populations with management. **Notes:** This species also uses other habitat types (coastal sage scrub and chaparral) containing cactus patches. Small clusters of birds at Black Mountain and Spring Valley will also be conserved. Conservation of the Salt Creek population is critical to the persistence of the species in San Diego County and it would only be conserved under the city of Chula Vista's "Modified GDP B" alternative. The existing distribution of cactus wrens in the MSCP plan area has been greatly reduced and restoration of suitable cactus wren habitat and its management are important components of the MSCP plan. Significant opportunities for restoration within the MHPA occur on Otay Ranch, Spring Canyon (and adjacent areas), Dennery Canyon, San Miguel Ranch, Lake Hodges/San Pasqual Valley, Otay River Valley and Santee/Lake Jennings. The participating jurisdictions should seek OHV funds for restoration since much of these areas have been heavily impacted by OHVs. The City of San Diego has already acquired habitat in Spring Canyon as mitigation. The City of San Diego and the wildlife agencies have agreed to make restoration maritime succulent scrub in Spring Canyon a high priority. The USFWS will also make restoration of maritime succulent scrub a high priority on any lands it acquires in Spring Canyon. **Conditions:** The restoration of maritime succulent scrub habitat as specified in the Otay Ranch RMP and GDP must occur at the specified 1:1 ratio. Area specific management directives must include restoration of maritime succulent scrub habitat, including propagation of cactus patches, active/adaptive management of cactus wren habitat, monitoring of populations within preserves and specific measures to reduce or eliminate detrimental edge effects. No clearing of occupied habitat may occur from the period February 15 through August 15.					
Polioptila californica californica California gnatcatcher FT/SSC	73,300± acres of coastal sage scrub and interdigitated habitats in an interconnected network of preserves	67,300± acres of coastal sage scrub and interdigitated habitats	Preserve design/landscape level	Area Specific Management Directives (31 locations)	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because: over 73,300 acres of existing and potential gnatcatcher habitat will be conserved and linked together; over 81 percent of the core areas where the species occurs (Otay, San Miguel, Mission Trails, Santee, Kearny Mesa, Poway, San Pasqual and Lake Hodges) will be conserved; and 65 percent (1,819 of 2,814) of the known locations will be conserved. **Notes:** Sixty-eight percent (57,874 acres) of habitat supporting core gnatcatcher populations and 70 percent (30,273 acres) of very high value and 62 percent high value (4,609 acres) gnatcatcher coastal sage scrub habitat would be conserved. Critical habitat linkages between core areas conserved in a function manner with a minimum of 75 percent of the habitat within identified linkages conserved. Populations of this species also occur on military lands which are not part of the MSCP. **Conditions:** 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 cleaning of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.					
Sialia mexicana Western bluebird none	59% of potential habitat (15,500± acres) – 57% of oak riparian forest, 47% of oak woodland, 34% of grassland	41% of potential habitat (12,100± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because over 15,000 acres of habitat will be conserved. **Notes:** Persistence of this species in San Diego County depends largely on conservation of existing large populations on public lands east of the plan area.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Vireo bellii pusillus Least Bell's vireo FE/CE	81% of potential habitat (1,700± acres) – 93% of riparian woodland, 58% of oak riparian forest – 82-100% of major populations	19% of potential habitat (400± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level with site-specific consideration(s)/management	Monitoring Plan – Habitat Based and Management Plans/Directives	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 1,700± acres (81 percent) of potential habitat will be conserved.

Conditions: Jurisdictions will require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and incorporate mitigation measures consistent with the 404(b)1 guidelines into the project. 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).

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Aimophilia ruficeps canescens California rufous-crowned sparrow */SSC	61% of potential habitat (73,600± acres) – 64% of coastal sage scrub, 60% of maritime succulent scrub, 44% of coastal sage/chaparral – 71% of mapped localities	39% of potential habitat (46,600± acres) – 29% of mapped localities	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 61 percent (73,600± acres) of potential habitat (including 71 percent of mapped localities) will be conserved.

Notes: This species is tolerant of edge effects, small habitat patches, low shrub volume, and short-term habitat disturbance.

Conditions: Area specific management directives must include maintenance of dynamic processes, such as fire, to perpetuate some open phases of coastal sage scrub with herbaceous components.

Passerculus sandwichensis beldingi Belding's savannah sparrow */CE	93% of potential habitat (1,700± acres of southern coastal saltmarsh) – 71% of mapped localities	7% of potential habitat (120± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based and Management Plans/Directives	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 93 percent (1,700± acres) of potential habitat (including 71 percent of mapped localities) will be conserved and the remaining acres (120±) are subject to no net loss of value and function. **Notes:** Additional important habitat is found on military lands (Silver Strand, North Island, etc.) which are not part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects to this species.					
Passerculus sandwichensis rostratus Large-billed savannah sparrow */SSC	93% of potential habitat (1,700± acres of southern coastal saltmarsh) – 50% of mapped localities	7% of potential habitat (120± acres) – wetlands are subject to no net loss of function and value and 404(b)1 guidelines	Preserve design/landscape level	Monitoring Plan – Habitat Based and Management Plans/Directives	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 93 percent (1,700± acres) of potential habitat (including 50 percent of mapped localities) will be conserved and the remaining acres (120±) are subject to no net loss of value and function. **Notes:** Additional important habitat is found on military lands (Silver Strand, North Island, etc.) which are not part of the MSCP. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. **Conditions:** Area specific management directives must include specific measures to protect against detrimental edge effects to this species.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Ammodramus savannarum Grasshopper sparrow none	This species will not be covered by the MSCP because insufficient information is available to determine if adequate habitat is conserved.				NO
Agelaius tricolor Tricolored blackbird */SSC	77% of breeding habitat (4,800± acres) – 61% of freshwater marsh, 80% of riparian scrub – 59% of known localities	23% of breeding habitat (1,400± acres)	Preserve design/landscape level	Management Plans/Directives	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 77 percent of potential habitat (including 59 percent of mapped localities) will be conserved. Breeding colonies move from season to season, and with a goal of no net loss of wetlands, most of the suitable breeding sites will continue to be available. This species forages in grasslands and agricultural fields near its breeding habitat. Foraging habitat near the known nesting colonies will be conserved at 70-100 percent. Additionally, foraging opportunities will continue to be provided and created in turfed areas such as golf courses and cemeteries. Jurisdictions will require surveys during the CEQA review process in suitable breeding habitat proposed to be impacted. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands.

Conditions: Project approvals must require avoidance of active nesting areas during the breeding season. Area specific management directives must include measures to avoid impacts to breeding colonies, and specific measures to protect against detrimental edge effects to this species.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Plecotus townsendii Townsend's western big-eared bat */SSC	Unknown/Insufficient data on distribution and life history.				NO
Eumops perotis californicus California mastiff bat */SSC	Unknown/Insufficient data on distribution and life history.				
Perognathus longimembris pacificus Pacific pocket mouse FE/SSC	Unknown/Only 3 to 4 known populations in Southern California. Insufficient data on distribution and life history.				NO
Taxidea taxus American badger /SSC	58% of potential habitat (82,500± acres) – 38% of grassland, 64% of coastal sage scrub, 44% of coastal sage/chaparral	42% of potential habitat (58,300± acres)	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 82,000± acres (58 percent) of its potential habitat will be conserved. **Notes:** This species has a wide range, and the plan will not adversely affect the species' long-term survival. Additional conservation of grassland habitats should be a priority and one of the primary factors in the design of preserves in the major amendment areas. **Conditions:** Area specific management directives must include measures to avoid direct human impacts to this species if it is present or likely to be present.					
Felis concolor Mountain lion/protected	81% of core areas 5, 6, 7, 8, 9, 11, and 12 (105,000± acres) – connected by linkages C, D, N	19% of core areas (24,000± acres)	Preserve design/landscape level	Monitoring Plan – Habitat Based and Corridor Sites	YES
DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED This species will be covered by the MSCP because 81 percent of the core areas (105,000± acres) which support its habitat will be conserved. **Notes:** Although not considered sensitive, this species has aesthetic and intrinsic values, thereby being an important species to protect. This species has a wide range, and the plan will not adversely affect the species' long-term survival. The criteria used to define core and linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside of the MSCP either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained. An extensive monitoring program will also be implemented by the wildlife agencies to detect unanticipated changes in ecosystem function and allow for adaptive management of the preserve system. Specific design criteria for linkages, road crossings/undercrossings are included in Subarea Plans.					

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved[3] (Based on the MSCP Plan)	Potentially Impacted/Developed (Based on the MSCP Plan)	General Basis for Analysis of Coverage	Monitoring Method(s) (Monitoring Plan and/or Management Plans/Directives)	Meets State and Federal Authorization Standards
Odocoileus hemionus fuliginata Southern mule deer none	81% of core areas 5, 6, 7, 8, 9, 11, and 12 (105,000± acres) – connected by linkages C, D, N	19% of core areas (24,000± acres)	Preserve design/landscape level	Monitoring Plan – Habitat Based and Corridor Sites	YES

DETAILS OF RATIONALE FOR IDENTIFYING SPECIES AS COVERED

This species will be covered by the MSCP because 81 percent of the core areas (105,000± acres) which support its habitat will be conserved.

Notes: Although not considered sensitive, this broadly distributed species has aesthetic and intrinsic values, and is the only large native herbivore in the plan area thereby making it an important species to protect. The criteria used to define core and linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside of the MSCP either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained. An extensive monitoring program will also be implemented by the wildlife agencies to delete unanticipated changes in ecosystem function and allow for adaptive management of the preserve system. Specific design criteria for linkages, road crossings/undercrossings are included in the Subarea Plans.

SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

[1]Measures to conserve population of species on the MSCP plan's narrow endemic list must be incorporated into the Subarea Plans which do not have preserve/development areas specifically delineated based on site specific surveys. The City of San Diego's and the County of San Diego's Subarea Plan areas are primarily where this requirement is applicable and both Subarea Plans specify how MSCP narrow endemic species conservation measures.

Within the City of San Diego's MHPA, populations of MSCP narrow endemic species will be avoided.

The County will conserve MSCP narrow endemic species using a process which: first, requires avoidance to the maximum extent possible (avoidance); second, allows for a maximum 20 percent encroachment into a population if total avoidance is not possible (minimize); and third, requires mitigation at 1:1 to 3:1 ratio (in-kind) for impacts if avoidance and minimization of impacts would result in no reasonable use of the property. The County requirements for avoidance, minimization and mitigation are specifically described in the County's proposed BMO.

[2]The County's proposed BMO includes a list of sensitive plant species (Groups A and B) which require special consideration in project design. The County will conserve Group A and B species using a process which: first, requires avoidance to the maximum extent possible (avoidance); second, allows for a maximum 20 percent encroachment into a population if total avoidance is not possible (minimize); and third, requires mitigation at 1:1 to 3:1 ration (in-kind) for impacts if avoidance and minimization of impacts would result in no reasonable use of the property.

[3]This column indicates the conservation level of the species. Not all major populations are in the GIS database, i.e., if specific locality data are lacking. In these cases, the percentage of major populations preserved is determined or estimated from the percentage of associated habitat in the MHPA.

Status Federal/State

FE = Federally endangered

PE = Proposed for federal listing as endangered

FT = Federally threatened

PT = Proposed for federal listing as threatened

C = Candidate for federal listing

BEPA = Bald Eagle Protection Act

CE = State endangered

CR = State rare

CT = State threatened

SSC = State Species of Special Concern

*= Formerly Category 2 or Category 3 candidate for federal listing; no current federal status.

Protected = moratorium on hunting

None = no federal or state status

Shading indicates priority species (federally and state listed species, species proposed for listing, Category 1 candidate species, and NCCP target species).

Findings Definitions

Note: Area specific management directives for preserve areas will include specific guidelines for managing and monitoring covered species and their habitats, including following best management practices. Edge effects may include (but are not limited to) trampling, dumping, vehicular traffic, competition with invasive species, parasitism by cowbirds, predation by domestic animals, noise, collecting, recreational activities, and other human intrusion.
Source: 1996 MSCP GIS database. Military lands excluded from analysis.