

**Multiple Species  
Conservation Program**

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# **City of San Diego MSCP Subarea Plan**

**March 1997**



Prepared by the City of San Diego  
Community and Economic Development Department

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# **MULTIPLE SPECIES CONSERVATION PROGRAM**

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MSCP Subarea Plan**

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## **1.0 CITY OF SAN DIEGO MSCP SUBAREA PLAN**

### **1.1 INTRODUCTION**

The City of San Diego's MSCP Subarea Plan (Subarea Plan) has been prepared pursuant to the general outline developed by the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDF&G) (herein referred to as the "wildlife agencies") to meet the requirements of the California Natural Communities Conservation Planning (NCCP) Act of 1992. This Subarea Plan forms the basis for the implementing agreement which is the contract between the City and the wildlife agencies that ensures implementation of the Subarea Plan and thereby allows the City to issue take permits at the local level. This Subarea Plan is also consistent with the MSCP plan and qualifies as a stand-alone document to implement the City's portion of the MSCP preserve.

The City of San Diego Multi-Habitat Planning Area (MHPA) was developed by the City in cooperation with the wildlife agencies, property owners, developers and environmental groups. The Preserve Design Criteria contained in the MSCP plan and the City Council adopted criteria for the creation of the MHPA were used as guides in the development of the City's MHPA. The Multi-Habitat Planning Area delineates core biological resource areas and corridors targeted for conservation. Within the MHPA limited development may occur.

#### **1.1.1 Boundary Adjustments**

Adjustments to the MHPA boundaries may be made without the need to amend either this Subarea Plan or the MSCP plan in cases where the new MHPA boundary results in an area of equivalent or higher biological value. The determination of the biological value of a proposed boundary change will be made by the City in accordance with the MSCP plan, with the concurrence of the wildlife agencies. If the determination is that the adjustment will result in the same or higher biological value of the MHPA, no further action by the jurisdictions or wildlife agencies shall be required.

Any adjustment to the MHPA boundary will be disclosed in the environmental document (project description) prepared for the specific project. An evaluation of the proposed boundary adjustment will be provided in the biological technical report and summarized in the land use section of the environmental document. An adjustment that does not meet the equivalency test shall require an amendment to this Subarea Plan.

If lands designated as MHPA within the County of San Diego, or other local jurisdiction are annexed into the City of San Diego, these lands will be incorporated into the City's Subarea Plan and shall be considered covered under the City's implementing agreement.

## 1.2 DESCRIPTION OF SUBAREA

The City of San Diego subarea encompasses 206,124 acres within the MSCP study area. The subarea is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. The 1997 population within the subarea was approximately 1.3 million. The City of San Diego MHPA represents a “hard line” preserve, in which boundaries have been specifically determined. It is considered an urban preserve which is constrained by existing or approved development, and is comprised of linkages connecting several large areas of habitat.

The City's MHPA is approximately 56,831 acres and includes approximately 47,910 acres within City jurisdiction, and additional City-owned lands (8,921 acres) in the unincorporated areas around San Vicente Reservoir, Otay Lakes and Marron Valley (**Table 1**). The City's MHPA comprises 29 percent of the regional MHPA and 58 percent of all habitat and vacant lands. The conserved lands within the City's MHPA total 53 percent of the vacant land in the City (61 percent of total habitat land in City). The City's MHPA preserves 77 percent of the core biological resource areas and 77 percent of the habitat linkages within its subarea. Lands which are outside of the biological core or linkage areas but are currently dedicated or designated as open space and provide some long term conservation value are included in the City's MHPA. In addition, a few small holdings of military properties within the City of San Diego have been included in the MHPA. While these lands are shown pictorially in the MHPA, nothing in the Subarea Plan or implementing ordinances will apply to federally-owned military property.

Approximately 90 percent of the MHPA lands (52,727 acres) within the City's subarea will be preserved for biological purposes. This is an overall average and in some cases 100 percent of an area will be preserved as a result of negotiations conducted during the Subarea planning process. Most of the following listed projects are approved with a certified EIR (See Section 9.17 and Exhibit H of the San Diego Implementing Agreement).

- Dennery Ranch
- Remington Hills
- Bougainvillea
- Hidden Trails
- Baldwin Otay Business Park
- Carmel Valley Neighborhood 10 Precise Plan
- NCFUA Subarea 5
- Montana Mirador
- Otay Corporate Center North and South
- Spring Canyon Planned Residential Development
- Black Mountain Ranch
- NCFUA Subarea 4
- Robinhood Ridge
- California Terraces

The majority (roughly 94 percent) of public lands would be preserved, except as noted in **Section 1.2.6**. Development impacts on private lands within the remainder of the MHPA will be restricted to no more than 25 percent of the parcel (75 percent preservation). Development within the MHPA will be directed to areas of lower quality habitat and/or areas considered less important to the long-term viability of the MHPA. Documented populations of covered species within the City's portion of the MHPA will be protected to the extent feasible. **Figure 1** identifies the City's MHPA

**TABLE 1**  
**VEGETATION COMMUNITY ACRES CONSERVED IN CITY OF SAN DIEGO AREAS;**  
**CORNERSTONE LANDS, AND SAN PASQUAL VALLEY**

Vegetation Community	Southern Area	Eastern Area	Urban Area	Northern Area	Hodges/San Pasqual	Otay Lakes <sup>1</sup>	San Vicente <sup>1</sup>	Marron Valley <sup>1</sup>	TOTAL	Conservation Goal - 2005 <sup>3</sup>	REVISED TOTAL	Coastal Zone <sup>4</sup>
Beach	1	0	55	60	0	0	0	0	115	0.4	<b>115</b>	0.4
Saltpan	127	0	9	0	0	0	0	0	136	0	<b>136</b>	0
Southern Foredunes	0	0	9	0	0	0	0	0	9	0	<b>9</b>	0
Southern Coastal Bluff Scrub	0	0	9	126	0	0	0	0	135	1.7	<b>137</b>	1.7
Coastal Sage Scrub	1257	3759	2901	3739	3443	1228	940	1685	18951	309	<b>19260</b>	27.7
Maritime Succulent Scrub	236	0	78	367	0	0	0	0	681	13.3	<b>694</b>	6.8
Chaparral	0	1449	729	4225	2474	153	1159	236	10424	149.5	<b>10574</b>	22.6
Southern Maritime Chaparral	0	0	20	1082	0	0	0	0	1102	26	<b>1128</b>	12.5
Coastal Sage/Chaparral	0	11	1	65	9	1	6	3	95	2.5	<b>98</b>	0
Grassland	201	819	951	2649	176	121	23	1	4942	72.2	<b>5014</b>	11.4
Southern Coastal Salt Marsh	237	0	120	579	0	0	0	0	936	0	<b>936</b>	0
Freshwater Marsh	10	2	5	94	69	52	1	0	232	0	<b>232</b>	0
Riparian Forest	62	75	73	152	137	38	1	77	614	0	<b>614</b>	0
Oak Riparian Forest	0	41	93	22	172	0	36	105	469	0	<b>469</b>	0
Riparian Woodland	0	24	261	283	0	0	0	0	567	0	<b>567</b>	0
Riparian Scrub	1172	197	424	421	389	23	15	106	2749	0	<b>2749</b>	0
Oak Woodland	1	25	46	48	129	0	51	29	329	3.3	<b>332</b>	0
Torrey Pine Forest	0	0	0	144	0	0	0	0	144	1.3	<b>145</b>	1.4
Tecate Cypress	0	0	0	0	0	2	0	0	2	0	<b>2</b>	0
Eucalyptus Woodland	2	0	41	118	4	1	6	0	170	13.3	<b>183</b>	1.3 <sup>(5)</sup>
Open Water	689	35	322	222	623	929	787	0	3699	0	<b>3699</b>	0
Disturbed Wetlands	110	3	11	80	218	2	148	10	583	0	<b>583</b>	0
Natural Flood Channel	4	24	9	1	229	3	3	23	295	0	<b>295</b>	0
Shallow Bays	91	0	134	0	0	0	0	0	225	0	<b>225</b>	0
Other Habitat <sup>2</sup>	104	0	47	1	4	0	0	0	157	87.5	<b>245</b>	25.1
<b>Habitat Subtotal</b>	<b>5084</b>	<b>6463</b>	<b>6346</b>	<b>14477</b>	<b>8076</b>	<b>2552</b>	<b>3266</b>	<b>2278</b>	<b>47762</b>	<b>680</b>	<b>48442</b>	<b>109.6</b>
Disturbed	86	227	155	436	585	56	21	100	2447	28.8	<b>2476</b>	3.1
Agriculture	745	0	0	682	375	1	0	0	1803	5.9	<b>1809</b>	1.0
<b>TOTAL</b>	<b>5915</b>	<b>6690</b>	<b>6501</b>	<b>15597</b>	<b>9036</b>	<b>2609</b>	<b>3287</b>	<b>2378</b>	<b>52012</b>	<b>715</b>	<b>52727</b>	<b>113.6</b>

Note: Numbers may not sum to total as shown, due to rounding. Acreage figures do not reflect exclusions of areas from the MHPA (see Section 1.2.6). The above acreages reflect the estimated conservation for each vegetation community based upon the application of various targeted percent conservation factors (e.g. 75%, 94%, 100%). All wetlands are assumed to be 100% conserved.

The acreage figures are approximate and do not reflect minor MHPA boundary modifications made during the public hearing process.

1. Cornerstone lands outside City of San Diego jurisdiction.

2. Developed areas with habitat value.

3. Sept. 6, 2005, City Council Resolution (R-300799) increased the MSCP conservation goal by 715 acres in conjunction with modifications to the City's brush management regulations.

4. Portion of the increased conservation goal - 2005<sup>3</sup> that is located within the coastal zone

5. Individual Torrey pines would be pruned not removed.



### **1.2.1 Southern Area**

The City proposes to preserve about three-quarters of the Otay Lakes/River Valley core area within its subarea (see also **Section 1.2.5** for a discussion of Otay Lakes).

#### **Otay Mesa**

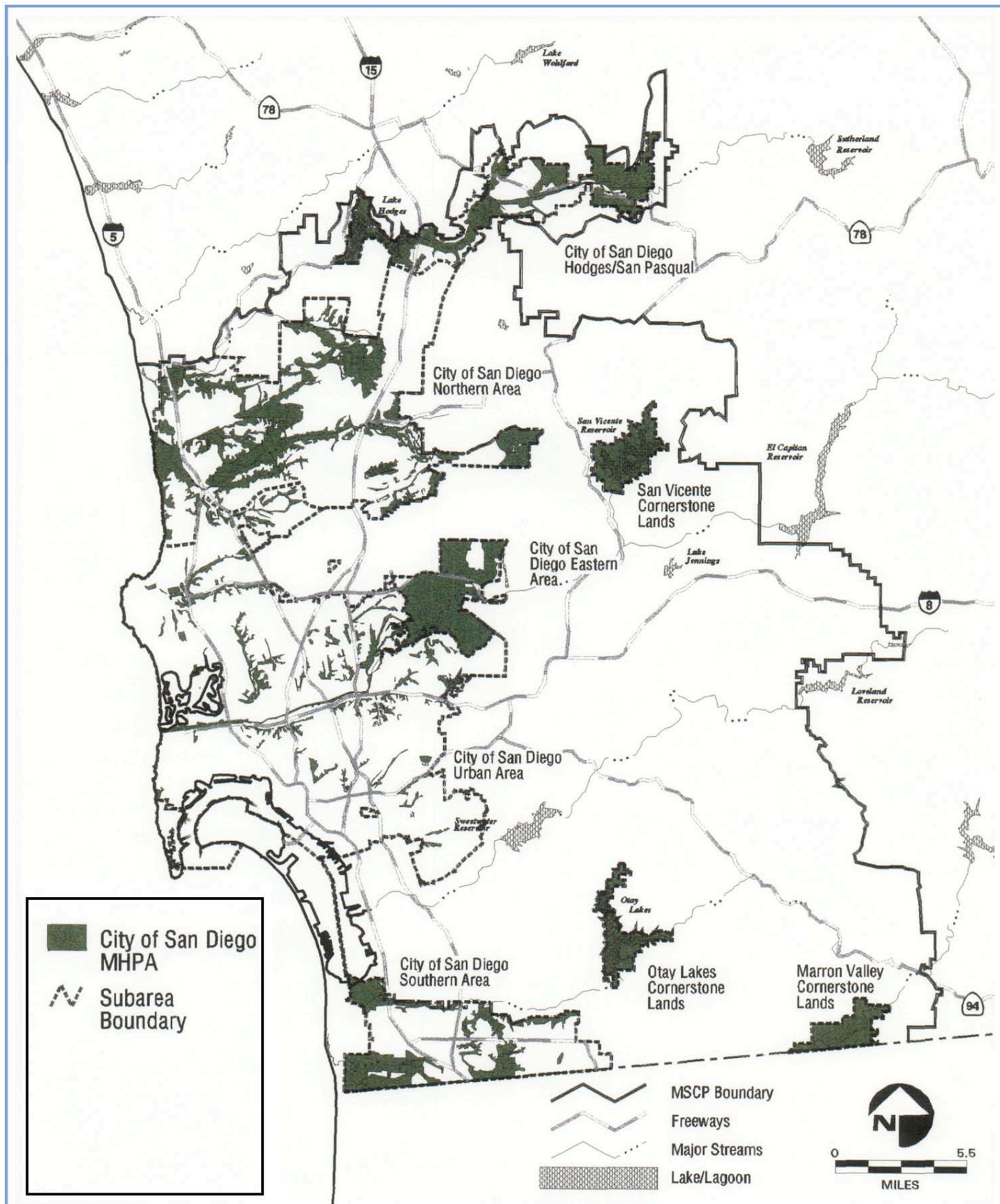
The Otay Mesa areas of the MHPA consists primarily of slopes and wide, deep canyons draining the vast mesas into the Otay River Valley or towards Mexico, with one linkage connecting south to north across Otay Mesa Road (see **Figure 2**). The optimum future condition envisioned for the Otay Mesa area is a network of open and relatively undisturbed canyons containing a full ensemble of native species and providing functional wildlife habitat and movement capability. Integrated into the canyon network will be recreational trails and border patrol access roads.

The Otay Mesa area is located generally east of Interstate 805 (I-805) and south of the Otay River Valley. It runs south to the international border and east to the edge of Johnson Canyon at the eastern edge of the City of San Diego. Mesa top land included in this area of the MHPA comprises several areas supporting grasslands and vernal pools directly north and northeast of Brown Field, as well as limited areas adjacent to Spring Canyon south of Otay Mesa Road and west of Cactus Road. The canyon areas of the MHPA contain primarily maritime succulent scrub and coastal sage scrub vegetation communities which include components unique to the border area.

The northwestern half of the Otay Mesa area consists predominately of Dennery Canyon and its tributaries, and is highly constrained by planned and approved development that completely surrounds and in some areas encroaches into the canyon areas. Virtually no mesas are included in the MHPA system here, which results in some constraints on the ecosystem function and natural processes in this area. This portion of the MHPA contains populations of sensitive plants and very high quality maritime succulent scrub, along with areas disturbed by historic grazing, off-road vehicle use, and a former bentonite mine.

The northeastern portion of the MHPA, north and east of Brown Field, includes mesa top lands containing tilled land, non-native grasslands high in native components, and vernal pools, along with coastal sage and succulent scrub on the north facing slopes adjacent to the Otay River Valley.

South of Otay Mesa Road, the MHPA incorporates most of Spring Canyon and its tributaries, as well as some areas of adjoining mesa top with vernal pools, grasslands, and coastal sage scrub. This portion connects to the MHPA lands on the west, which contain cactus wrens, through a narrow linkage across relatively flat lands in the southwest corner. The Spring Canyon area contains a mixture of pristine succulent scrub, regenerating



## City of San Diego MHPA

MSCP Subarea Plan

1

FIGURE

coastal sage scrub and severely eroded and disturbed lands. One of the primary causes of disturbance has been off-road vehicle use, including the border patrol in its pursuit of illegal immigrants crossing the international border. It is acknowledged that the border patrol will continue its activities in this area; therefore, management strategies have been identified in the management section of this Subarea Plan. The federal government has installed a fence and night lights along the international border with Mexico in an attempt to control illegal crossings.

This area supports prime examples of sensitive habitats of the coastal lowlands, such as high quality coastal sage scrub, maritime succulent scrub, wetlands, vernal pools and significant populations of MSCP covered species. These include San Diego thorn-mint, Orcutt's bird's-beak, Orcutt's brodiaea, variegated dudleya, San Diego button-celery, coast barrel cactus, Otay tarplant, prostrate navarretia, snake cholla, California orcutt grass, Otay Mesa mint, San Diego goldenstar, small-leaved rose, Riverside fairy shrimp, San Diego horned lizard, orange-throated whiptail, Wright's checkerspot butterfly, northern harrier, Cooper's hawk, golden eagle, peregrine falcon, burrowing owl, cactus wren and California gnatcatcher.

### **Otay River Valley**

The City of San Diego's portion of the Otay River Valley generally consists of a moderately narrow and well-defined floodplain bounded on both sides by urban development. The area extends from I-805 to the Western Salt Ponds at the south end of the San Diego Bay (see **Figure 2**). The valley is currently a mixture of mining and processing activities, riparian scrub and forest, coastal sage scrub, disturbed habitats, several ponds and wetland mitigation areas, areas disturbed by trash dumping, off-road vehicle activities, salt extraction ponds and tilled land. The proposed South San Diego Bay National Wildlife Refuge boundary extends over the salt ponds area at the western end of the river valley, west of Interstate 5 (I-5).

The City of San Diego's boundaries with Chula Vista cut the floodplain in two and in a few areas jog back and forth in square patterns bearing no relationship to the natural processes or the floodplain. The MHPA follows these unnatural boundaries on its north side. Otherwise, the MHPA follows the boundaries of the areas designated for natural open space, riparian corridor, passive recreation, ponds, salt marsh and salt ponds by the proposed draft Otay Valley Regional Park in its "Progress Plan." A Joint Exercise of Powers Agreement between the Cities of San Diego and Chula Vista, and the County of San Diego has allowed conceptual planning to occur for the proposed Otay Valley Regional Park. This joint effort has developed an updated "Concept Plan."

The MHPA boundaries within the City of San Diego generally incorporate the river corridor and floodway areas, with some upland slopes on the south

side of the river that are currently in coastal sage scrub and disturbed habitats. Some of these slopes are separated from the river corridor by active recreational areas, creating disjunctive habitat areas. At the western end, where the river delta mouth opens into the San Diego Bay at its southern end, the area is diked into salt ponds. These ponds support several threatened and endangered species. The Otay River flows on a circuitous path around the salt ponds levees, encountering saltmarsh habitat and eventually drains into the San Diego Bay.

The Otay River Valley area supports a number of sensitive and target species while providing an important linkage from the Otay Mountain and Lakes area and beyond, to the San Diego Bay. Covered species include Otay tarplant, Orcutt's bird's-beak, variegated dudleya, San Diego barrel cactus, western snowy plover, long-billed curlew, Belding's savannah sparrow, large-billed savannah sparrow, light-footed clapper rail, California least tern, least Bell's vireo, and California gnatcatcher. In addition, various raptors, including the northern harrier, use the valley for foraging and nesting.

### **MHPA Guidelines**

The City has developed the following general guidelines for the Otay Mesa and Otay River Valley areas of the MHPA. The notes under "MHPA Guidelines" include features that have been incorporated into the MHPA and thus were considered in the evaluation for species coverage. The guidelines are required to be implemented for take authorization, except if noted with an asterisk (\*). As appropriate, the MHPA guidelines noted with an asterisk should be considered during preserve assembly. The notes are keyed to the extent possible to specific locations on the accompanying figure for the area. The notes include: 1) approved project requirements (e.g., Note #C1); 2) guidelines to be incorporated into the design of future projects within or adjacent to the MHPA (e.g., Note #D11); 3) clarifications of the MHPA design in a particular area (e.g., Note #A8); or 4) locations of existing and future uses within or adjacent to the MHPA (e.g., Note #B8). Responsibility for implementation will be determined at the time of discretionary approvals for individual projects. Except if noted, the MHPA guidelines do not apply to existing approved site-specific project entitlements, unless a modification, revision, or amendment to the entitlement is requested by the property owner.

1. Maintain and/or provide trail access for border patrol use around the rim of canyons, where feasible.\* Motorized off-road vehicle use in the MHPA should be prohibited except by border patrol, MHPA (Preserve) managers or emergency vehicles.
2. In the area south of proposed State Route 905 (SR-905), minimize road crossings of Spring Canyon. Where road crossings must occur, use bridges or culverts (see #3 below). Manufactured slopes adjacent to roadways should be revegetated with appropriate native vegetation.

3. Unless noted otherwise, culvert dimensions should be at least 30 feet wide by 15 feet high and, where feasible, have a maximum 2:1 length-to-width ratio. The floor of the culvert must be natural/soft bottom, and the ceiling constructed using skylights where possible to provide adequate visibility for wildlife.
4. Vernal pool areas should be preserved per adopted regulations. Where development is considered, the vernal pools should be assessed for transplantation of sensitive plants and soils containing the propagule (i.e., seeds, eggs, cysts) of sensitive flora and fauna. Any wetland impacts will be mitigated for losses to meet the state and federal goal of “no net loss of wetland function and value.” Mitigation should occur in accordance with requirements to be determined through the 404 and 1601 permitting process for individual projects.

The following specific guidelines for the Otay Mesa and Otay River Valley areas are shown as locations A1 through A14 on **Figure 2**:

- A1. Improve the wildlife/pedestrian corridor in Dennery Canyon by incorporating two culverts in Dennery Canyon Road. Revegetate the disturbed portions of Dennery Canyon with coastal sage scrub species.
- A2. Modify street alignments to retain additional natural areas. Reduce street classifications and roadbed width where possible to reflect reduced development.\*
- A3. The Robinhood Ridge project has a legal right to develop under an existing approved Tentative Map. In the event that the approved map expires, future development proposals would be required to conform to the MHPA boundaries as depicted by the Subarea Plan and associated land use regulations.
- A4. Provide a culvert under Otay Mesa Road to facilitate wildlife crossing. Ideally, the culvert would provide both limited pedestrian and wildlife access from the Otay River Valley Regional Park through Dennery Canyon to areas to the south in Spring Canyon. However, if this dimension is not possible due to engineering constraints, the culvert must be large enough to allow mid-size mammal and predator undercrossing.
- A5. Enhance/restore disturbed areas within the wildlife crossing. This will entail revegetation with coastal sage scrub species and if necessary possible experimental restoration of graded vernal pools immediately north of Otay Mesa Road. The revegetation effort should not use medium to tall shrubs and trees, to address border patrol concerns. Provide fencing to direct animals into the undercrossing.



- A6. The SR-905 design shall include a bridge-type structure over the wildlife corridor south of Otay Mesa Road. This crossing shall be enhanced with grading and revegetation.
- A7. Prior to any development impacts in this area, mitigation must include collecting and reseeding vernal pool species into other preserved Otay Mesa pools.
- A8. Final configuration of this area is subject to redesign of approved maps.
- A9. The MHPA designation on the Baldwin property at the far northeastern end of the Otay Mesa area will need to be fenced at the time of development. Depending on the future use of adjacent areas outside the MHPA, the frequency and monitoring for disturbance, fence repairs, and other maintenance will be determined at the time of development. Due to the sensitivity of the vernal pools and other sensitive species in this area, public access should be carefully directed.
- A10. Upon completion of aggregate extraction activities, revegetate extraction areas within and adjacent to the MHPA with native vegetation.
- A11. The existing Western Salt Company salt extraction use is expected to continue for an undetermined period. The sensitive animal and plant species should continue to be managed to ensure protection. If the extraction use is terminated, the site should be converted to a use compatible with the resource goals and objectives of the MHPA and other regulations and policies applicable to the site, or enhanced/restored.
- A12. Work with SANDAG, South Bay jurisdictions, and the Bayshore Bikeway Committee to develop a bike path in or adjacent to the MHPA in the South San Diego Bay area. Design of the bikeway should minimize disturbance to natural areas.\*
- A13. If Hollister Street is widened or improved, a bridge facility should be used to elevate the road above the floodplain at least 12 feet (bottom of bridge to existing grade). The bridge should be designed to allow for maximum flood flows, provide for riparian woodland to regenerate and for sediments to build over time, and provide for wildlife, pedestrian, and equestrian movement.
- A14. The MHPA boundaries within the proposed Special Study Areas of the Otay-Nestor Community Plan may be modified to reflect future changes to land use designations and may require an amendment to the Subarea Plan. Any such modifications shall include a wildlife corridor approximately 1,000 feet in width, preserving connections between the Otay River and San Diego Bay.

## **Tijuana Estuary and Tijuana River Valley**

The Tijuana Estuary and adjacent Tijuana River Valley comprise one of the largest and most important wetland systems in San Diego County. The estuary supports the most extensive saltmarsh and saltpan habitat within the MSCP area, and small areas of southern foredunes occur adjacent to this system at Monument Beach. The City proposes to preserve approximately 94 percent of the Tijuana Estuary/Tijuana River Valley core area within its subarea (see **Figure 2**).

The Tijuana River Valley area generally consists of a broad floodplain with high natural mesas to the south, bounded on three sides by urban development, and on the fourth by the Pacific Ocean. The valley floodplain is a mixture of agricultural fields, equestrian facilities, rural housing, riparian woodland and disturbed habitats, several ponds and a lake created by sand mining, the riverbed and pilot channel, and areas disturbed by dumping, off-road activities, grading and recontouring (berming), and the effects of flooding. The mesas and canyon areas contain healthy coastal sage and maritime succulent scrub communities, some chaparral and disturbed riparian scrub, agricultural fields on Spooner's Mesa, and additional disturbed areas in the Border Highlands area and in the canyons.

The southern boundary of the area is the international border, with the urbanized city of Tijuana, Mexico lying immediately to the south on the other side. To the east lies the community of San Ysidro; to the north, Otay Mesa Nestor and Imperial Beach; and to the west lies a National Estuarine Research Reserve on the edge of the City's jurisdiction to the Pacific Ocean.

The MHPA incorporates the 25-year floodplain within the City's jurisdiction and much of the 100-year floodplain in the valley. The MHPA also includes the mesa and canyon areas on the south side of the floodplain and the Dairy Mart Ponds, some of which are in the San Ysidro Community Plan.

The county of San Diego is developing a Regional Park in the Tijuana River Valley that will include a mixture of recreational opportunities, sustainable agriculture, and native habitats. The entire park area and the management framework governing its development are considered to be generally compatible with the MHPA even though many of the proposed uses are not specifically habitat related. Portions of the valley not included in the MHPA will remain in an open space designation that allows for more active open space uses (e.g., agriculture, recreation), giving the County flexibility to plan the regional park. Areas within the 25-year floodplain, currently leased for agriculture are expected to remain in these uses for up to 10-20 years, depending on flooding and other considerations. However, in the long term these areas will be evaluated for restoration and widening of the riparian corridor consistent with the County's Framework Management Plan and the

MSCP. The area is unique in its relationships with local, state, federal, and international agencies and citizen groups, and in its issues, including a proposal to consider the valley a United Nations designated Biosphere Reserve which incorporates a sustainable, multiple use, and conservation concept.

Covered species in this area include Shaw's agave, Orcutt's bird's-beak, wart-stemmed ceanothus, San Diego barrel cactus, least Bell's vireo, light-footed clapper rail, Belding's savannah sparrow, California least tern, Western snowy plover, northern harrier, Cooper's hawk, and California gnatcatcher.

### **MHPA Guidelines**

The following specific guidelines for the Tijuana River Valley area are shown as locations A15 through A19 on **Figure 2**. The notes under "MHPA Guidelines" include features that have been incorporated into the MHPA and thus were considered in the evaluation for species coverage. The guidelines are required to be implemented for take authorization, except if noted with an asterisk (\*). As appropriate, the MHPA guidelines noted with an asterisk should be considered during preserve assembly. The notes are keyed to the extent possible to specific locations on the accompanying figure for the area. The notes include: 1) approved project requirements (e.g., Note #C1); 2) guidelines to be incorporated into the design of future projects within or adjacent to the MHPA (e.g., Note #D11); 3) clarifications of the MHPA design in a particular area (e.g., Note #A8); or 4) locations of existing and future uses within or adjacent to the MHPA (e.g., Note #B8). Responsibility for implementation will be determined at the time of discretionary approvals for individual projects. Except if noted, the MHPA guidelines do not apply to existing approved site-specific project entitlements, unless a modification, revision, or amendment to the entitlement is requested by the property owner.

A15. Maintain existing reserve (estuary) and park uses.\*

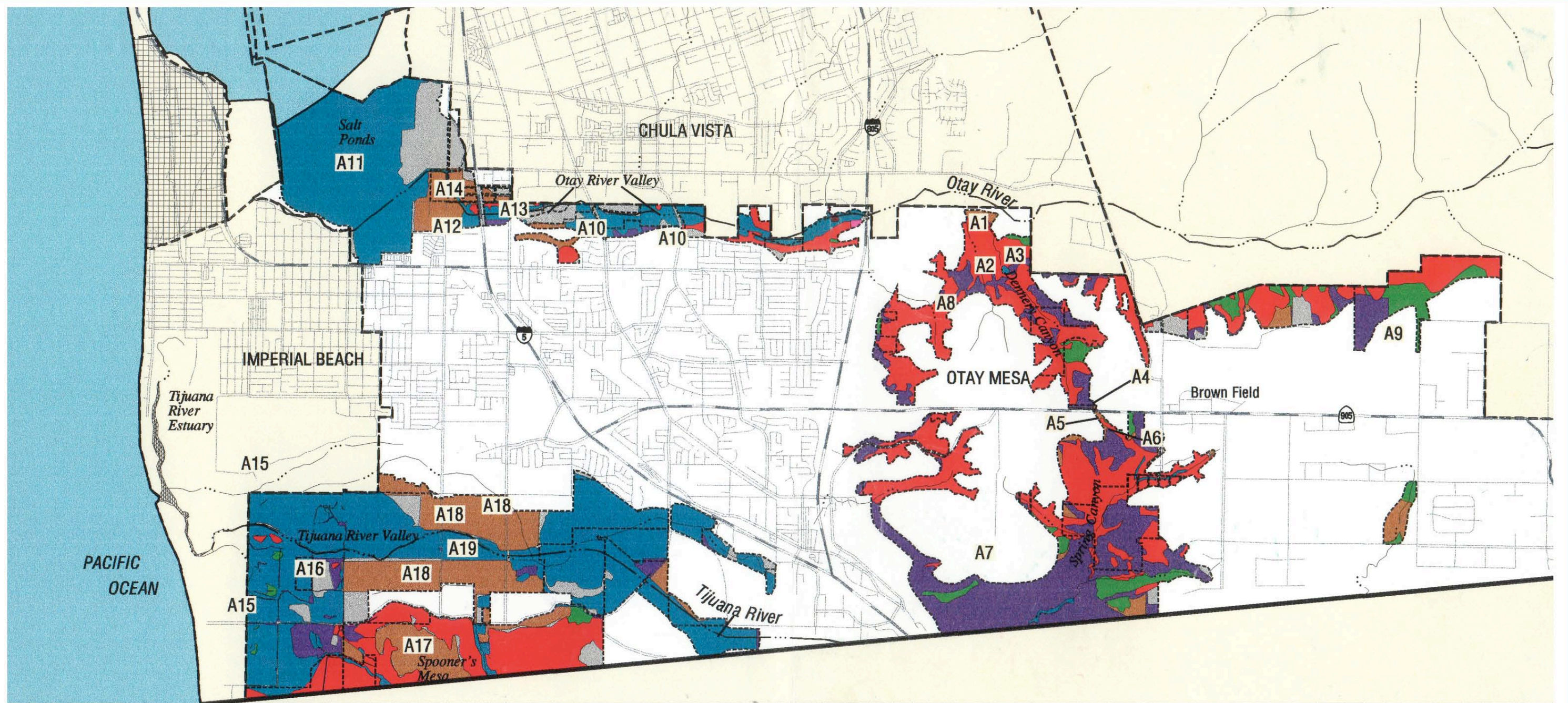
A16. Maintain a buffer around all wetland areas.

A17. Maintain existing agricultural uses on Spooner's Mesa, with a long-term goal of phased restoration to coastal sage scrub, maritime succulent scrub or native grasslands.

A18. Maintain agricultural use on County-owned lands, with a long-term goal of restoration to native vegetation where possible, consistent with the County's Framework Management Plan.

A19. Retain and enhance, where possible, existing riparian habitat along the Tijuana River.





### Vegetation Communities

Coastal Sage Scrub	Oak Woodland	Developed
Chaparral	Coniferous Forest	Agriculture
Coastal Sage Scrub/Chaparral	Beach/Foredunes	
Grassland	Eucalyptus Woodland	
Riparian/Wetlands	Disturbed Habitat	
	Shallow Bay	

Letter/number indicates MHPA Guideline. See text.

### Base Map Features

MSCP Boundary	Major Stream
U.S. - Mexico Border	Minor Stream
Freeway	Lake/Lagoon
Major Road	
Minor Road	



## Conserved Vegetation Communities in Southern Area

MSCP Subarea Plan

2

FIGURE



### **1.2.2 Eastern Area**

The Eastern area includes the remaining undeveloped lands in the eastern portion of the City of San Diego including the area known as East Elliott (approximately 2,300 acres), and Mission Trails Regional Park (approximately 5,700 acres (see **Figure 3**). The eastern edge of this area forms the San Diego border with the City of Santee.

#### **NAS Miramar**

A conservation plan for NAS Miramar has not been completed at this time. The City's MHPA design will not preclude corridor options on Miramar and assumes there will be a connection between East Elliott and the General Dynamics property/Beeler Canyon area to the north through Miramar (**Figure 3**, B1\*). Miramar is in the process of transferring operational control from the Navy to the Marine Corps as part of the base realignment and closure program. The Navy and Marine Corps are currently in the planning process to determine the facilities needed to meet Miramar's new mission requirements as a Marine Corps Air Station (MCAS). The Department of the Navy is preparing a habitat conservation plan that will identify Habitat Management Zones at Miramar. Miramar has prepared a Comprehensive Natural Resources Management Plan which provides the basis and criteria for the management and decisions regarding natural and cultural resources. Coastal sage scrub and vernal pools are two key resources to be addressed by the Miramar plan. Habitat linkages to the regional habitat preserve network also will be addressed.

#### **East Elliott and Mission Trails Regional Park**

The City proposes to preserve about 80 percent of the Mission Trails/East Elliott/Santee core area within its subarea (excluding Miramar). Important resources in this area include coastal sage scrub, riparian scrub, and vernal pools. Significant populations of willow monardella, San Diego thorn-mint, Orcutt's brodiaea, variegated dudleya, San Diego goldenstar, San Diego ambrosia, least Bell's vireo, and California gnatcatchers are a few of the covered species that occur in this area.

The majority of Mission Trails Regional Park is owned and maintained by the City of San Diego, with minor portions both jointly and separately owned by the County of San Diego, and the state of California. Most of the East Elliott community is privately owned with the central portion (approximately 500 acres) owned and operated as the County of San Diego Sycamore Landfill. State Route 52 (SR-52) generally divides Mission Trails Regional Park from East Elliott, though bridges span Spring and Oak Canyons and provide wildlife movement through both areas and further north to Miramar.



## MHPA Guidelines

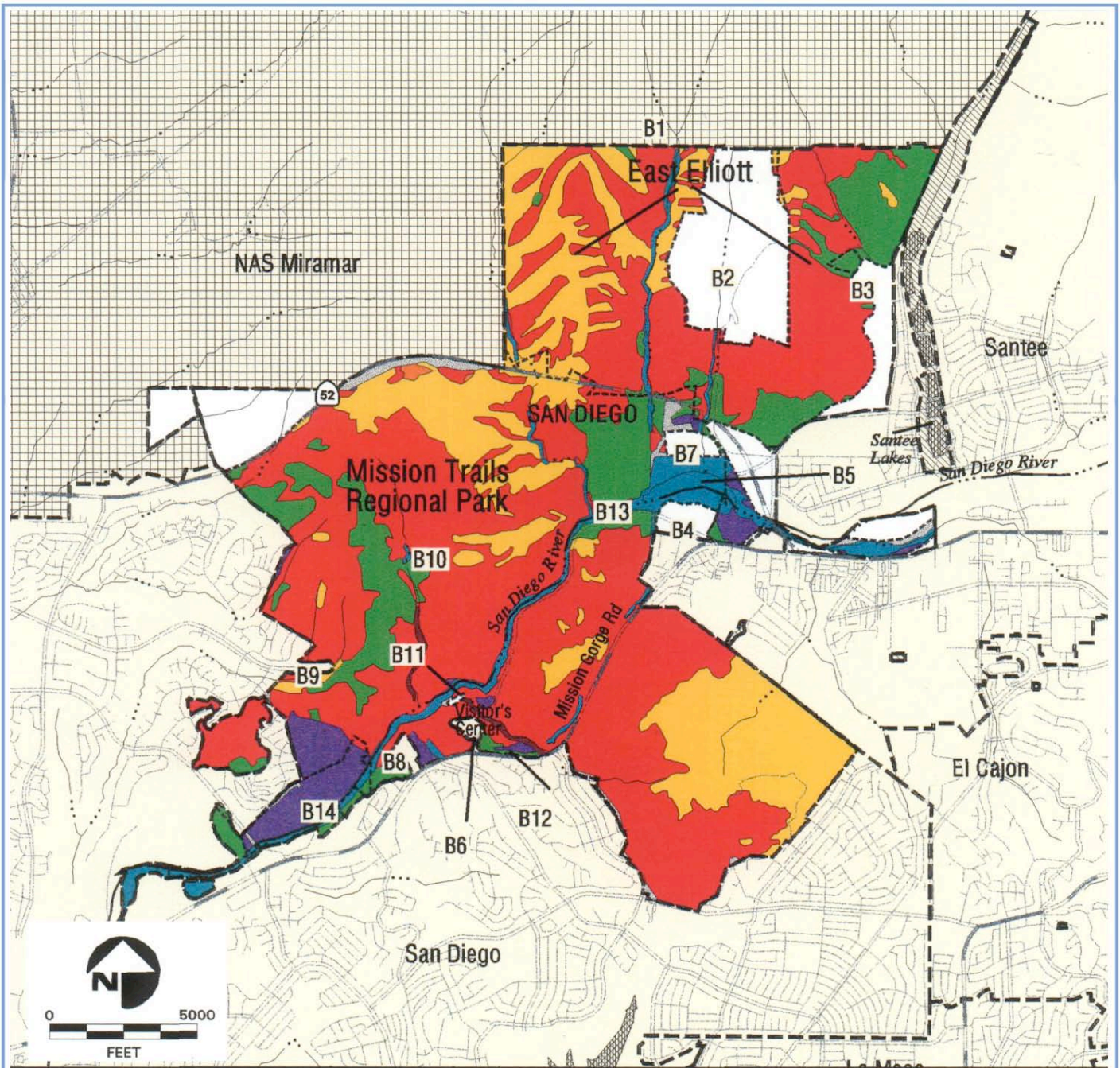
The following specific guidelines for the Eastern area are shown as locations B2 through B14 on **Figure 3**. The notes under “MHPA Guidelines” include features that have been incorporated into the MHPA and thus were considered in the evaluation for species coverage. The guidelines are required to be implemented for take authorization, except if noted with an asterisk (\*). As appropriate, the MHPA guidelines noted with an asterisk should be considered during preserve assembly. The notes are keyed to the extent possible to specific locations on the accompanying figure for the area. The notes include: 1) approved project requirements (e.g., Note #C1); 2) guidelines to be incorporated into the design of future projects within or adjacent to the MHPA (e.g., Note #D11); 3) clarifications of the MHPA design in a particular area (e.g., Note #A8); or 4) locations of existing and future uses within or adjacent to the MHPA (e.g., Note #B8). Responsibility for implementation will be determined at the time of discretionary approvals for individual projects. Except if noted, the MHPA guidelines do not apply to existing approved site-specific project entitlements unless a modification, revision, or amendment to the entitlement is requested by the property owner.

- B2. Maintain the existing County landfill with eventual restoration and use as a passive park/open space preserve.\* An adequate buffer (1,000 feet) should be maintained around the landfill. Development of a future closure plan for the landfill shall incorporate measures to transition from the future use to the MHPA. If the landfill site is redeveloped as an active park, consideration of adjacency issues such as lighting and noise will be required.
- B3. In the event that a future landfill is located in East Elliott, the area shown for development will revert to open space and the landfill development footprint and ancillary uses will be outside of the MHPA. Development of a landfill would not require an amendment to the Subarea Plan if the extent of impacts associated with the landfill are essentially equivalent to the eastern development. The determination of equivalency shall be based on the following:
- The landfill development footprint and all ancillary uses (roads, recycling centers, etc.) shall not exceed 25 percent of the MHPA area in East Elliott (including the area that reverts to open space).
  - Active landfill operations including ancillary uses and all other areas of native habitat modification shall not exceed 280 acres.
  - Areas that are no longer receiving waste shall be restored with native species that will not adversely affect the function of the closed landfill, while fulfilling maintenance measures required by law. Areas will be considered part of the active landfill operations until a habitat restoration program is initiated.

- Development of the landfill shall not preclude wildlife movement through more than one of the three wildlife corridors in East Elliott (i.e., Spring, Oak or Quail Canyon).

All mitigation for landfill impacts, including ancillary uses, should occur in the East Elliott area. Evaluation of any impacts to covered species shall occur at such time that a landfill footprint is determined. Avoidance, translocation, or other mitigation measures will be determined at that time.

- B4. A condition of coverage for San Diego ambrosia requires 90 percent preservation of the population at the Mission Trails Regional Park site.
- B5. Pursue an active cowbird management program, where deemed necessary, in areas adjacent to the San Diego River.
- B6. Active park uses in Mission Trails Regional Park are located outside of and adjacent to the MHPA. Uses include campgrounds, visitors center, interpretive centers, and archery range.\*
- B7. Potential location of a future 30-40 acre equestrian center and buffer. This is a conceptual location only and may be adjusted in order to minimize disturbance to adjacent land uses and biological resources.\*
- B8. Location of a future day use area, water pump station and associated parking lot.\*
- B9. Location of a future western staging area.\*
- B10. Passive uses identified in the Mission Trails Regional Park Master Development Plan are considered compatible within the MHPA, unless otherwise noted.\*
- B11. Potential future site for an archery range.\*
- B12. Location of future picnic areas. Access will be provided along existing trails or unpaved roads.\*
- B13. Location of the existing Old Mission Dam parking lot and future restrooms.\*
- B14. Upon cessation of extractive uses, this site should be reclaimed/restored for open space.



### **Vegetation Communities**

	Coastal Sage Scrub		Coniferous Forest
	Chaparral		Beach/Foredunes
	Coastal Sage Scrub/Chaparral		Eucalyptus Woodland
	Grassland		Disturbed Habitat
	Riparian/Wetlands		Shallow Bay
	Oak Woodland		Developed
			Agriculture

Letter/number indicates MHPA Guideline. See text.

### **Base Map Features**

	Subarea Boundary		MSCP Boundary
	MHPA Boundary		U.S. - Mexico Border
	Water District		Freeway
	Subarea		Major Road
	Military Lands		Minor Road
			Major Stream
			Minor Stream
			Lake/Lagoon



## **Conserved Vegetation Communities in Eastern Area**

**MSCP Subarea Plan**

**3**

**FIGURE**



### 1.2.3 Urban Areas

#### Point Loma

The City proposes to preserve approximately three quarters of the habitat within its subarea in the Point Loma core area (excluding the Point Loma Naval Complex) (**Figure 4**). Important resources in this area include coastal bluff scrub, maritime succulent scrub, southern foredunes, Shaw's agave, wart-stemmed ceanothus, snake cholla, roosting seabirds, and migratory birds.

A Natural Resources Management Plan (NRMP) for Point Loma has been prepared by the Navy in cooperation with the USFWS, National Park Service, Veterans Administration, U.S. Coast Guard, and the City of San Diego, in accordance with executive orders and Navy guidelines mandating a balanced program for the management of natural resources on naval installations. The NRMP primarily covers the Point Loma Naval Complex (five naval commands) and Cabrillo National Monument (**Figure 4, E1**). The NRMP includes long-term, in-place mitigation that will allow the Navy to proceed with planned development and continue to achieve its military mission and mandate, while providing good stewardship of the sensitive and unique natural resources under its jurisdiction. The NRMP document was finalized in July 1994. The Navy currently is developing a draft Memorandum of Understanding (MOU) with the USFWS, and is pursuing the formal Navy Ecological Reserve Area (ERA) designation from the Chief of Naval Operations. The Point Loma NRMP proposes to set aside approximately 614 acres of native habitat or other vegetation with habitat value (e.g., eucalyptus woodland) in an ERA. Lands within the ERA will constitute approximately 77 percent of the habitat available on Point Loma. The NRMP ensures relatively high preservation of most of the sensitive associations onsite, including southern foredunes, coastal bluff scrub, maritime succulent scrub, Diegan coastal sage scrub, intertidal habitat, and cultivated Torrey pine forest.

Preservation of southern maritime chaparral (62 percent) is expected to be increased through revegetation/habitat enhancement measures. The ERA will protect at least 15 of the 18 NRMP target plant species (including all six MSCP target plant species found on Point Loma) and all of the target animal species. In addition to the high percentage of sensitive habitats and species included within the ERA, the final ERA design will provide a high degree of connectivity between reserved habitats and will include the majority of lands designated as Very High and High biological value in the NRMP Habitat Evaluation Model.

#### Other Urban Habitat Areas

Urban habitat areas within the City of San Diego included in the MHPA are primarily concentrated in existing urbanized locations, and include areas not

incorporated in the major planned areas of the MHPA (see **Figure 4**). The majority of these lands consist of canyons with native habitats in relative proximity to other MHPA areas providing habitat. These areas contribute in some form to the MHPA, either by providing habitat for native species to continue to reproduce and find new territories, or by providing necessary shelter and forage for migrating species (mostly birds).

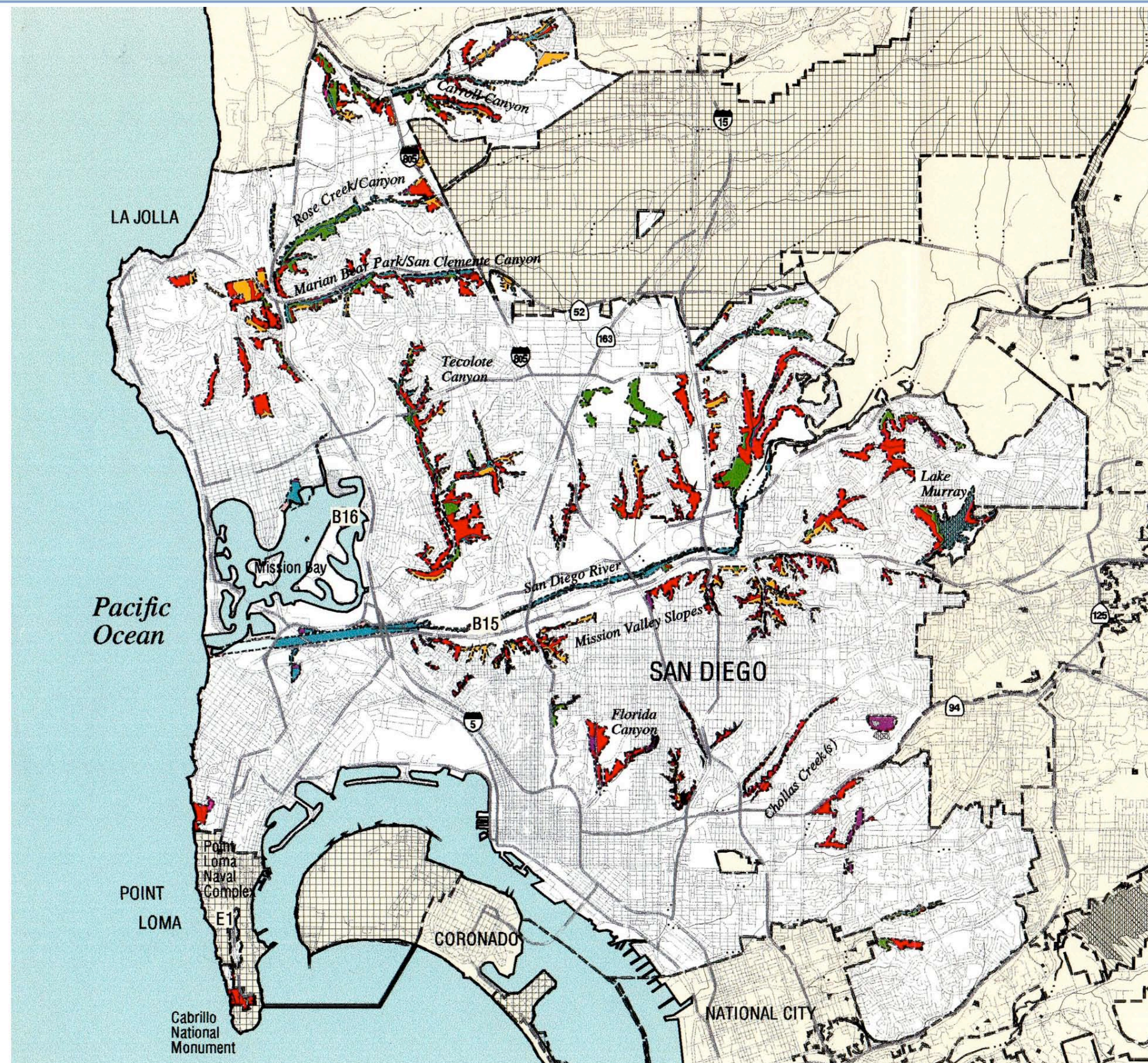
The urban habitat areas within the City's MHPA include existing designated open space such as Mission Bay, Tecolote Canyon, Marian Bear Memorial Park, Rose Canyon, San Diego River, the southern slopes along Mission Valley, Carroll and Rattlesnake Canyons, Florida Canyon, Chollas Creek and a variety of smaller canyon systems dispersed throughout the more urban areas of the City. These areas contain a mix of habitats including coastal sage scrub, grasslands, riparian/wetlands, chaparral, and oak woodland. The lands are managed pursuant to existing Natural Resource Management Plans, Landscape Maintenance Districts, as conditions of permit approval, or are currently unmanaged. The areas also contribute to the public's experience of nature and the local native environment.

Covered species found in these areas include Orcutt's brodiaea, wart-stemmed ceanothus, short-leaved dudleya, San Diego button-celery, San Diego barrel cactus, willowy monardella, San Diego goldenstar, snake cholla, California gnatcatcher, least Bell's vireo, California least tern, Belding's savannah sparrow, coastal cactus wren, western snowy plover, light-footed clapper rail, mule deer, and orange-throated whiptail.

### **MHPA Guidelines**

The following specific guidelines for the urban area are shown as locations B15 and B16 on **Figure 4**. The notes under "MHPA Guidelines" include features that have been incorporated into the MHPA and thus were considered in the evaluation for species coverage. The guidelines are required to be implemented for take authorization, except if noted with an asterisk (\*). As appropriate, the MHPA guidelines noted with an asterisk should be considered during preserve assembly. The notes are keyed to the extent possible to specific locations on the accompanying figure for the area. The notes include: 1) approved project requirements (e.g., Note #C1); 2) guidelines to be incorporated into the design of future projects within or adjacent to the MHPA (e.g., Note #D11); 3) clarifications of the MHPA design in a particular area (e.g., Note #A8); or 4) locations of existing and future uses within or adjacent to the MHPA (e.g., Note #B8). Responsibility for implementation will be determined at the time of discretionary approvals for individual projects. Except if noted, the MHPA guidelines do not apply to existing approved site-specific project entitlements, unless a modification, revision, or amendment to the entitlement is requested by the property owner.





### Vegetation Communities

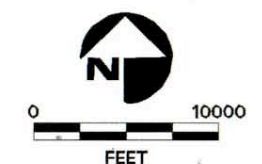
- Coastal Sage Scrub
- Chaparral
- Coastal Sage Scrub/Chaparral
- Grassland
- Riparian/Wetlands
- Oak Woodland
- Coniferous Forest
- Beach/Foredunes
- Eucalyptus Woodland
- Disturbed Habitat
- Shallow Bay
- Developed
- Agriculture

- Subarea Boundary
- MHPA Boundary
- Water District Subarea
- Military Lands

### Base Map Features

- MSCP Boundary
- U.S. - Mexico Border
- Freeway
- Major Road
- Minor Road
- Major Stream
- Minor Stream
- Lake/Lagoon

Letter/number indicates MHPA Guideline. See text.



Conserved Vegetation Communities in Urban Area

MSCP Subarea Plan

4

FIGURE



B15. Native vegetation shall be restored as a condition of future development proposals along this portion of the San Diego River corridor.

B16. Management of the least tern area shall be pursuant to the adopted Mission Bay Master Plan and associated Natural Resources Management Plan (1990).

#### **1.2.4 Northern Area**

The City proposes to include about two-thirds of the Los Peñasquitos Lagoon/Canyon Del Mar Mesa core area within its subarea (see **Figure 5**). This core resource area encompasses one of the few intact natural open space areas in coastal San Diego County that is still linked to larger expanses of habitat to the east. Los Peñasquitos Canyon is a regional corridor linking coastal habitats to inland habitats on Black Mountain and in Poway. Important resources in this area include saltmarsh, coastal sage scrub and southern maritime chaparral. Covered species include San Diego thorn-mint, Shaw's agave, Del Mar manzanita, Encinitas baccharis, Orcutt's brodiaea, wart-stemmed ceanothus, short-leaved dudleya, variegated dudleya, San Diego button-celery, San Diego barrel cactus, willowy monardella, San Diego goldenstar, Torrey pine, San Diego mesa mint, Riverside fairy shrimp, southwestern pond turtle, San Diego horned lizard, orange-throated whiptail, California brown pelican, white-faced ibis, Canada goose, northern harrier, Cooper's hawk, golden eagle, western snowy plover, California least tern, burrowing owl, coastal cactus wren, California gnatcatcher, California rufous-crowned sparrow, Belding's savannah sparrow, grasshopper sparrow, mountain lion and mule deer.

The northern area encompasses a large amount of developed and undeveloped land stretching from the Black Mountain Ranch area of the North City Future Urbanizing Area (NCFUA) south to Lopez Canyon in Los Peñasquitos Canyon Preserve in Mira Mesa, and from the coast to Interstate 15 (I-15). The area encompasses the communities of Carmel Valley, Sorrento Hills, Torrey Pines, Rancho Penasquitos, a portion of Mira Mesa, the Via de la Valle Specific Plan area, and the entire 12,000-acre NCFUA. In addition, the area also includes Torrey Pines State Preserve, the Los Peñasquitos Lagoon, and Los Peñasquitos Canyon Preserve. The majority of the undeveloped private land is disturbed habitat, much of it having been farmed or grazed for decades or longer.

The MHPA in this area is largely comprised of regional linkages leading to biological core areas within existing reserves and parks. In the north lies the area surrounding Black Mountain Park, much of which serves as core area immediately in and surrounding the park, with the remainder of the lands allowing connections to the San Dieguito River Valley to the north and west, and providing one end of a lengthy regional corridor to the south. The core area contains valuable native habitats: mixed and chamise chaparral, coastal

sage scrub, and native grassland. The corridor/linkage areas currently contain much non-native and disturbed habitat, including invasive exotic species, and are in need of enhancement/restoration. The corridors also contain areas with non-native grasslands that are considered important raptor foraging habitats.

The central portion of the northern area is comprised of the heart of the City's North City Future Urbanizing Area, known as NCFUA Subareas 2, 3, 4 and 5. These encompass the San Dieguito Lagoon area, Gonzales Canyon, and most of the area lying between the communities of Carmel Valley and Rancho Peñasquitos. NCFUA Subareas 3 and 4 contain only extended regional corridors, linking to the north, west and south. These corridors primarily lie in canyons or drainages (e.g., La Zanja Canyon, McGonigle Canyon and Gonzales Canyon), and the majority require restoration to enhance their long-term habitat value, as they are currently in agriculture and disturbed lands. The NCFUA Subarea 5 contains core habitat area on the Del Mar Mesa north of Los Peñasquitos Canyon Preserve as well as linkages containing disturbed lands and habitat leading toward Carmel Valley and Carmel Creek. NCFUA Subarea 2 contains a portion of the San Dieguito Lagoon enhancement area east of the I-5 freeway. The proposed MHPA boundary in this area is consistent with the open space configuration of the NCFUA Framework Plan, and contains wetlands including the San Dieguito River, limited coastal sage, chaparral, grasslands, and agriculturally disturbed lands.

The southwestern portion of this area contains Torrey Pines State Park, Crest Canyon, Los Peñasquitos Lagoon, and Los Peñasquitos Canyon Preserve which are core biological resource areas with high to moderate habitat values. Los Peñasquitos Canyon Preserve contains large expanses of non-native grassland, and contains some restoration opportunities within its boundaries. This portion of the MHPA also contains linkages and habitat within the southern Carmel Valley neighborhoods (e.g., 8, 8A and 10) and the Carmel Valley Restoration and Enhancement Project (CVREP), which is intended to serve as a wildlife linkage to the Los Peñasquitos Lagoon and Torrey Pines State Park. Carmel Valley Neighborhood 10 contains two major wildlife corridors that converge at CVREP, where they link to adjacent core habitat on and north of Neighborhood 8A. Neighborhood 8, where CVREP is located, also contains existing houses, ranches, and rural-oriented businesses. These are incorporated within the MHPA boundary as low-density areas conditionally compatible with the MHPA.

The linkages to Torrey Pines State Reserve and Los Peñasquitos Lagoon from the east are tentative at best. In the south, a rip-rap channel winds west from Los Peñasquitos Canyon, underneath freeways, local roads and railroad tracks to gain access to the lagoon and state park. The northern connection to the lagoon is located at the western terminus of CVREP, with six to eight feet of clearance under the I-5 freeway to allow for Carmel Creek to drain into the lagoon. This wildlife connection is constrained as well.

The eastern portion of the northern area includes linkages and open space within the Rancho Peñasquitos, Mira Mesa, Sabre Springs, Scripps Ranch and Miramar Ranch communities, Miramar Lake and the General Dynamics property/Beeler Canyon area. This area includes core habitat in the Miramar-Poway areas as well as linkages that extend from Los Peñasquitos Canyon Preserve east through Sabre Springs into the Miramar Lake area, MCAS Miramar and Sycamore Canyon Regional Park. The proposed MHPA in this area is consistent with the open space of the existing communities and includes a large block of habitat in the easternmost portion. This block of habitat is a mixture of chaparral and coastal sage scrub and is located immediately west of Sycamore Canyon Regional Park and north of MCAS Miramar.

## **MHPA Guidelines**

### **Carmel Valley**

The following specific guidelines for the northern area are shown as locations C1 through C8 on **Figure 5**. The notes under “MHPA Guidelines” include features that have been incorporated into the MHPA and thus were considered in the evaluation for species coverage. The guidelines are required to be implemented for take authorization, except if noted with an asterisk (\*). As appropriate, the MHPA guidelines noted with an asterisk should be considered during preserve assembly. The notes are keyed to the extent possible to specific locations on the accompanying figure for the area. The notes include: 1) approved project requirements (e.g., Note C1); 2) guidelines to be incorporated into the design of future projects within or adjacent to the MHPA (e.g., Note D11); 3) clarifications of the MHPA design in a particular area (e.g., Note A8); or 4) locations of existing and future uses within or adjacent to the MHPA (e.g., Note B8).

Responsibility for implementation will be determined at the time of discretionary approvals for individual projects. Except if noted, the MHPA guidelines do not apply to existing approved site-specific project entitlements, unless a modification, revision, or amendment to the entitlement is requested by the property owner.

Unless otherwise noted, culvert dimensions shall be at least 30 feet wide by 15 feet high with a maximum 2:1 length-to-width ratio, where feasible. The floor of the culvert must be natural/soft bottom, with skylights where possible to provide adequate visibility for wildlife.

- C1. In Neighborhood 10, a 90-foot span bridge is required where Carmel Mountain Road crosses the western canyon connection to facilitate wildlife crossing. The wildlife corridor must be at least 400 feet wide at its narrowest point. Elsewhere, the corridor maintains a 500-foot width for 500 feet through the canyon. The topography in this area provides additional protection for this corridor.

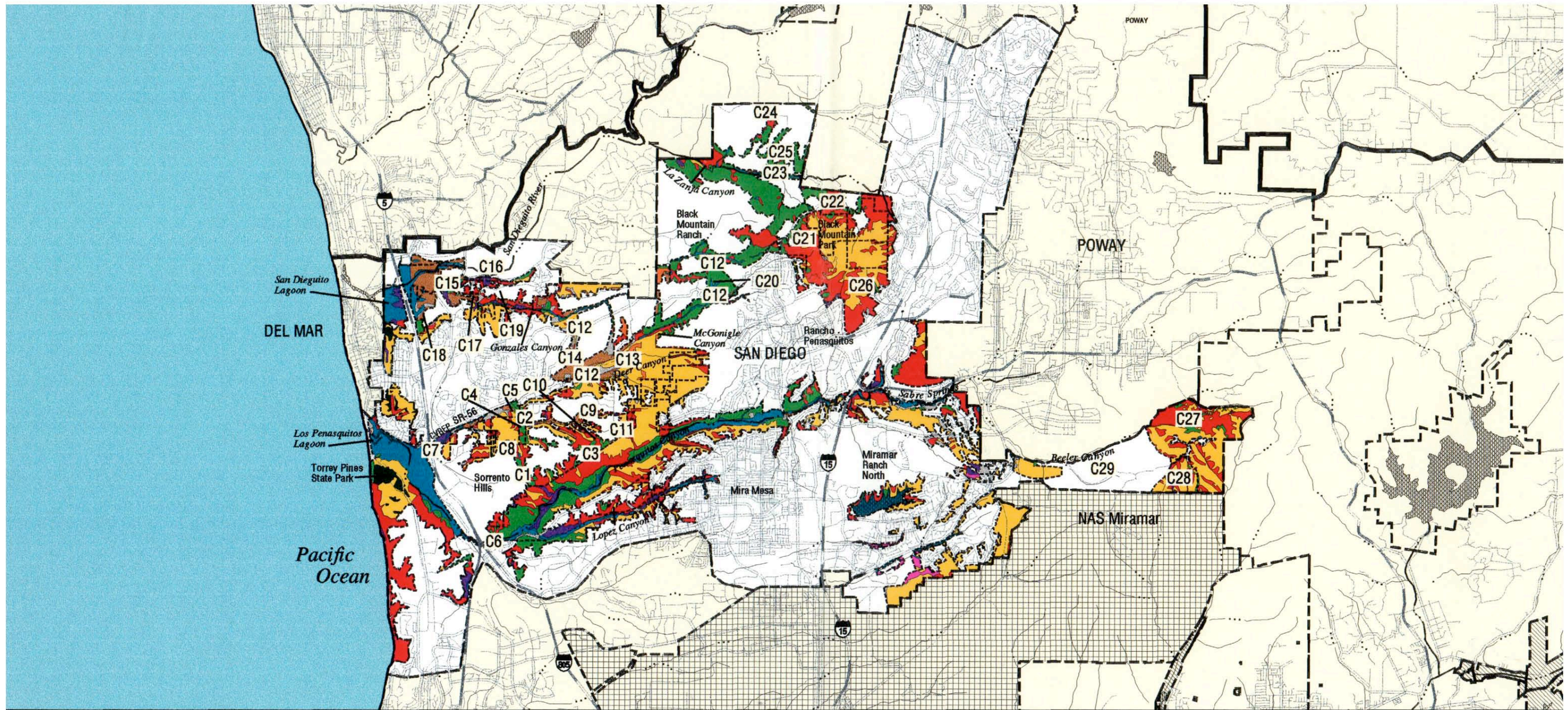
- C2. Two culverts (or a bridge if funding becomes available ) are required to facilitate wildlife crossing at this major link to Carmel Valley, Los Peñasquitos Lagoon and north to the San Dieguito River Valley.
- C3. An arch pipe style culvert is required to facilitate wildlife crossing. The culvert will be 30 feet wide by 15 feet high and will extend for a length of 100-150 feet. Modifying the existing grade (saddle) is required to allow wildlife crossing below the proposed adjacent road grade.
- C4. Ensure continued wildlife movement through this significant corridor.
- C5. When funding becomes available, redesign or relocate the existing sedimentation basin to minimize obstruction of wildlife movement. If the basin is relocated it should be revegetated with native plant species.\*
- C6. When funds become available in the future, enhance the channel and provide noise barriers along I-805 to encourage wildlife movement (Los Peñasquitos Canyon to Torrey Pines link).
- C7. Caltrans will provide a bridge over Carmel Creek in association with the widening of I-5. Incorporate an enlarged culvert (or bridge if funding becomes available) to facilitate wildlife movement under Sorrento Valley Boulevard on the west side of I-5 (Carmel Valley to Los Peñasquitos Lagoon link ).
- C8. The MHPA boundaries are unresolved and may be modified by City Council action on the Carmel Valley Neighborhood 8A Precise Plan.

#### **Future Urbanizing Area (FUA)**

The following specific guidelines for the FUA area are shown as locations C9 through C23 on **Figure 5**:

- C9. The MHPA excludes golf course greens and fairways, although these areas may provide for some wildlife movement. The precise layout and configuration of the golf course greens and fairways has been established by the approval of the bougainvillea project by the City of San Diego. Adjustments to the MHPA in this location will require an amendment to the Subarea Plan.
- C10. Within this approximately 70-acre area, residential and accessory uses shall be limited to up to 25 percent of the area and clustered on the flatter portions, with no disturbance on slopes or the remainder of the lots. Development in this area may be ten-acre lots. No development except brush management Zone 2 should occur within 100 feet of the MHPA.





**Vegetation Communities**

- |   |  |
|---|--|
| <span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> Coastal Sage Scrub                   | <span style="display:inline-block; width:15px; height:15px; background-color:darkred; border:1px solid black;"></span> Oak Woodland        |
| <span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Chaparral                         | <span style="display:inline-block; width:15px; height:15px; background-color:darkgreen; border:1px solid black;"></span> Coniferous Forest |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightorange; border:1px solid black;"></span> Coastal Sage Scrub/Chaparral | <span style="display:inline-block; width:15px; height:15px; background-color:lightpink; border:1px solid black;"></span> Beach/Foredunes   |
| <span style="display:inline-block; width:15px; height:15px; background-color:green; border:1px solid black;"></span> Grassland                          | <span style="display:inline-block; width:15px; height:15px; background-color:magenta; border:1px solid black;"></span> Eucalyptus Woodland |
| <span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span> Riparian/Wetlands                   | <span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Disturbed Habitat    |
|   | <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Shallow Bay       |

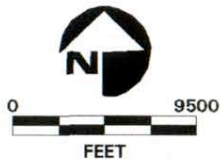
Letter/number indicates MHPA Guideline. See text.



- |  |   |
|--|---|
| <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Developed        | <span style="display:inline-block; width:15px; height:15px; background-color:lightgray; border:1px solid black;"></span> Subarea Boundary |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightgray; border:1px solid black;"></span> Agriculture | <span style="display:inline-block; width:15px; height:15px; background-color:lightgray; border:1px solid black;"></span> MHPA Boundary    |
|  | <span style="display:inline-block; width:15px; height:15px; background-color:lightgray; border:1px solid black;"></span> Water District   |
|  | <span style="display:inline-block; width:15px; height:15px; background-color:lightgray; border:1px solid black;"></span> Subarea          |
|  | <span style="display:inline-block; width:15px; height:15px; background-color:lightgray; border:1px solid black;"></span> Military Lands   |

**Base Map Features**

- |  |  |
|--|--|
| <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> MSCP Boundary        | <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Major Stream |
| <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> U.S. - Mexico Border | <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Minor Stream |
| <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Freeway              | <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Lake/Lagoon  |
| <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Major Road           |  |
| <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Minor Road           |  |



**Conserved Vegetation Communities in Northern Area**

MSCP Subarea Plan

**5**

FIGURE



- C11. For the Shaw Texas property (Area No. 61 on Figure 21 of the Subarea V Specific Plan) and Areas 70, 59 and 44 abutting the MHPA to the east, and extending to the border of the A-1-1 zoned areas to the north, all brush management shall occur within the defined development area for lots contiguous to the MHPA. This requirement also applies to Area Nos. 9, 23, 32 and 33, abutting the A-1-1 zoned areas to the east and the MHPA to the north. Deviations from brush management standards shall be considered consistent with the alternative compliance provision of the Landscape Technical Manual.
- C12. Incorporate bridges to facilitate wildlife crossing.
- C13. Due to its relatively pristine condition and the sensitivity of habitats within it, Deer Canyon should remain free of utilities, facilities and roads.
- C14. Provide fences or barriers along the edges of the shallow north-south trending canyon that connects Carmel Valley to Gonzales Canyon to direct public access to appropriate locations.
- C15. When funds become available, place a large culvert or bridge undercrossing for wildlife movement where El Camino Real crosses the outlet of Gonzales Canyon into the San Dieguito River.\*
- C16. Enhance and restore a riparian corridor/wildlife connection through the golf course at Fairbanks Country Club and from the FUA boundary at El Camino Real to the county line.\*
- C17. If this area develops or redevelops, the MHPA boundary should be accommodated with the majority of the floodplain to be placed in open space and restored where possible to natural habitats.
- C18. A minimum 200-foot-wide wetland buffer is recommended adjacent to the wetlands in this area. The buffer may include detention/sedimentation basins to reduce impacts associated with water quality and sedimentation.\*
- C19. In the event that the MHPA configuration is not implemented pursuant to the "Pardee Settlement Agreement," then the MHPA configuration shall be per the NCFUA Framework Plan. Provide an undercrossing of San Dieguito River Road for wildlife movement from Gonzales Canyon of the San Dieguito River.
- C20. If an at-grade crossing is approved for this area, the crossing should remain unlit at night and provide adequate cover (native plantings) on both sides of the road and leading up to the crossing to facilitate wildlife movement.

- C21. If purchased by the City's Water Utilities Department for water facility uses, the development areas shown may expand slightly.\*
- C22. Study the need for a future grade-separated wildlife crossing.\*
- C23. The La Jolla Valley area (Lusardi Creek) will be enhanced and restored into a fully-functional native riparian corridor and maintained at an average 400-500-foot width along its entire length as part of the Black Mountain Ranch project.
- C24. Provide a 400-foot-wide corridor at this location as part of the Black Mountain Ranch project.
- C25. Development in this area should provide barriers such as fencing to prevent encroachment into the MHPA. Other adjacency planning guidelines such as plantings, lighting and drainage should also be incorporated into any future development proposal.

#### **Rancho Peñasquitos and Beeler Canyon Area**

- C26. The Montana Mirador project has a legal right to develop under an existing approved Tentative Map. In the event that the approved map expires, future development proposals would be required to conform to the MHPA boundaries, as depicted by the Subarea Plan and associated land development regulations.
- C27. This area will be a permanent open space subject to an agreement between the City and landowners. Existing use areas, including all existing cleared areas and all existing firebreaks, are excluded from the MHPA and will remain subject to existing zoning designations. The landowners will dedicate a conservation easement to the City of San Diego or other acceptable entity. The limits of the dedication, subject to the foregoing exclusions, will follow the MHPA boundaries north to the existing access road and will follow the existing ridgetop firebreak immediately south of Site "J," south of the existing access road. Existing firebreaks may continue to be cleared by mechanical means in accordance with existing practice. New firebreaks shall not be created within the MHPA.
- C28. Parcels containing areas of the MHPA outside of the conservation easement will be subject to potential rezones as OR-1-2 Zone. Seventy-five percent of this area will be preserved as permanent open space while the remaining 25 percent may be developed subject to all applicable sections of the Land Development Code. Any potential development associated with the areas of the MHPA outside of the conservation easement will be required to avoid all impacts to willow monardella (*Monardella lioides* ssp. *viminea*) and must assure continued wildlife movement through West Sycamore Canyon.

C29. This area is not included within the MHPA and will not be subject to rezoning as OR-1-2. Development may occur as permitted in accordance with applicable zoning regulations or potential rezoning.

### **1.2.5 Cornerstone Lands and San Pasqual Valley**

The following Cornerstone Lands and San Pasqual Valley will be protected as habitat lands, as described in this section, as part of the City's MHPA (see **Table 1**):

- Watershed management lands around Hodges Reservoir include that portion of San Pasqual Valley from Hodges Reservoir east to the area referred to as the "narrows;"
- Lands surrounding portions of Upper and Lower Otay Lakes;
- Lands surrounding San Vicente Reservoir;
- Lands owned by the City of San Diego in Marron Valley; and
- Portions of San Pasqual Valley from the "narrows" east to Boden Canyon; this area of San Pasqual Valley is not part of the Cornerstone Lands.

The majority of these areas were ranked very high biological value on the Habitat Evaluation Map, and each has been identified as a core biological resource area.

#### **Cornerstone Lands**

The City Water Department owns four large contiguous areas of land in the study area containing valuable biological resources (Figure 6). These lands total 10,400 acres and are commonly referred to as the Cornerstone Lands because they are considered essential building blocks for creating a viable habitat preserve system. The Cornerstone Lands have been largely maintained by the Water Department in an undisturbed natural condition to serve as watershed for Lake Hodges, San Vicente and Otay Reservoir. A 2,600-acre area of the Cornerstone Lands in the southeastern portion of the study area, known as Marron Valley, was purchased by the Water Department many years ago as a potential dam site. However, today Marron Valley is not considered suitable for that purpose and some of this surplus land is currently leased by the City of San Diego for cattle grazing.

The San Diego City Charter restricts the use and disposition of water utility assets. The Water Department must be compensated for any title restrictions placed on the Cornerstone Lands and for any financial burdens which do not directly benefit the City's water utility rate payers. Therefore, to meet the policy objectives of the MSCP and comply with the City Charter, the City of San Diego intends to enter into a Conservation Land Bank Agreement with the wildlife agencies for the Cornerstone Lands.

As part of this agreement, the City will commit to phasing in conservation easements over all 10,400 acres of the Cornerstone Lands. The conservation easements will allow the Water Department to continue to use the Cornerstone Lands as watershed and for water utilities facilities for the benefit of water utility rate payers, but will restrict those lands from being used for other purposes inconsistent with habitat preservation. In turn, the wildlife agencies will permit the Water Department to establish a mitigation bank to sell 3,900 mitigation credits at fair market value to public entities, public utility/service providers and private property owners doing projects in San Diego County and needing mitigation. For consumers purchasing the credits, each mitigation credit will be treated by the wildlife agencies as the functional equivalent of purchasing one acre of high quality offsite mitigation land. The easements will be phased in over time by the City in correlation with threshold sales of mitigation credits.

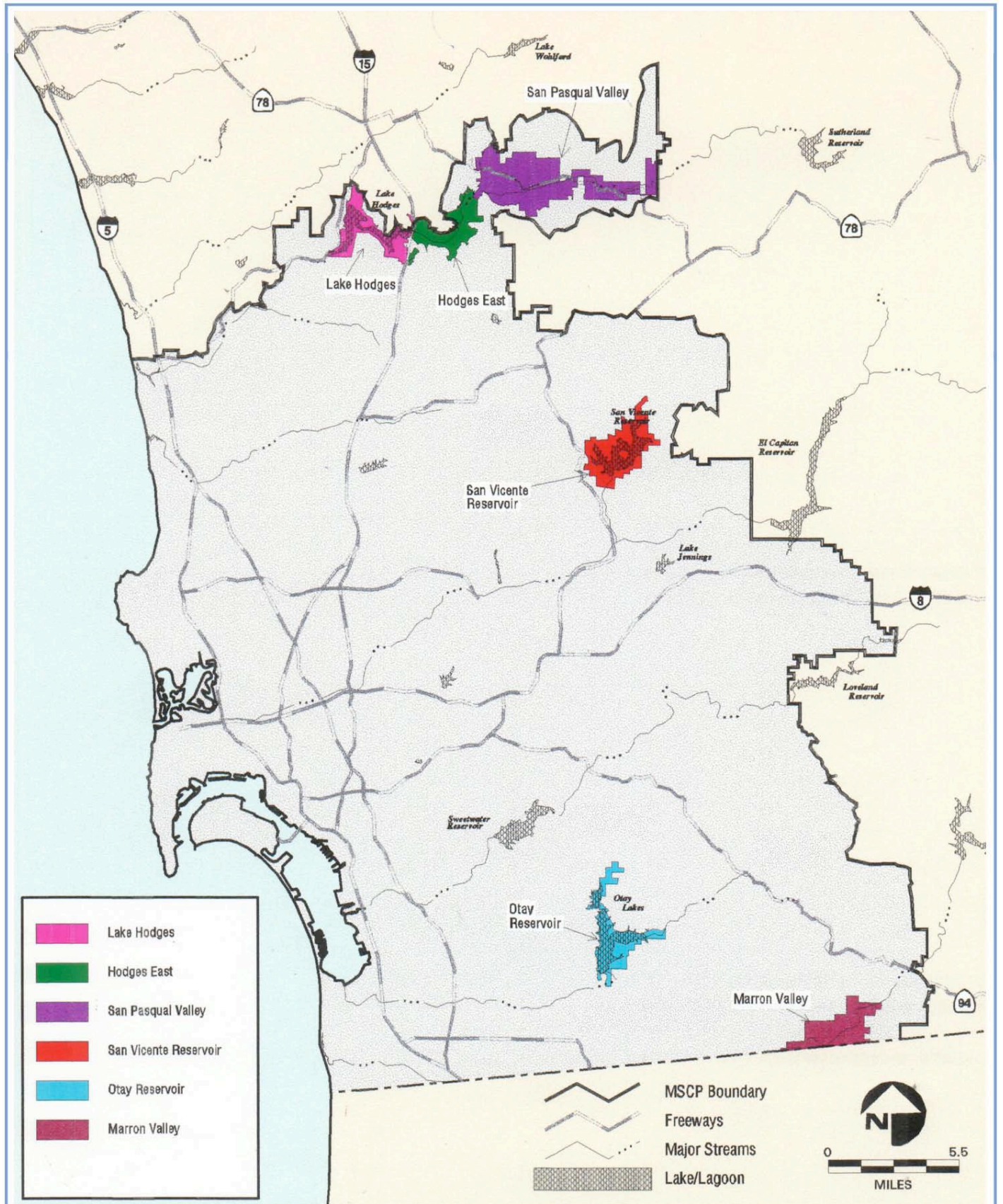
### **Hodges Reservoir/San Pasqual Valley**

The Hodges Reservoir/San Pasqual Valley core area represents one of the largest continuous blocks of habitat in the MSCP study area and serves as a major east-west corridor. This area includes core gnatcatcher and cactus wren populations, one of the two “centers of distribution” for *Encinitas baccharis* in the MSCP study area, large expanses of grassland that provide valuable raptor foraging habitat and valuable wetland habitat in San Pasqual Valley which supports several MSCP target species dependent on riparian habitats. The western portion of the valley, east of I-15 and above the drawdown area of the lake, is currently an intensively farmed agricultural preserve which has been cultivated since before this century.

The most important areas for conservation are those natural areas around Hodges Reservoir, the riparian habitat along the San Dieguito River and its tributaries through San Pasqual Valley, and the naturally vegetated slopes above the river valley. The majority of the riparian habitats in the river valley provide excellent opportunities for restoration and enhancement of the wildlife corridor through the valley. Conserved lands in the Hodges Reservoir/San Pasqual Valley area will be the cornerstone for a natural east/west open space corridor within the San Dieguito River Valley and San Pasqual Valley. Vegetation communities in these areas are depicted in **Figure 7**.

Conservation and management of Cornerstone Lands around Hodges Reservoir and native habitats in San Pasqual Valley will be guided by the 1995 City of San Diego San Pasqual Valley Plan. Many of the goals, policies, and specific proposals of the San Pasqual Valley Plan address sensitive resources and open space and are compatible with the MSCP conservation goals.





# City of San Diego Cornerstone Lands and San Pasqual Valley

MSCP Subarea Plan

6

FIGURE

The San Pasqual Valley Plan designates a riparian corridor along the San Dieguito River and its tributaries and the remaining coastal sage scrub, oak woodland and chaparral as open space. Only land designated for agriculture in the land use plan is recommended to be leased for agricultural purposes in the future. However, agricultural uses, consistent with the San Pasqual Valley Plan, shall not be precluded by the implementation of the MSCP.

The San Pasqual Valley Plan recommends restoration of some agricultural and dairy farm lands to riparian vegetation. The plan also recommends maintenance of the riparian vegetation and wildlife corridor, and maintenance of a 40-foot wide flood control pilot channel bottom to maintain flood carrying capacity. The plan recommends that the City study environmentally and economically sound approaches to providing minimum necessary flood control to support agriculture within the San Pasqual Valley. The vegetation around Hodges Reservoir is recommended to be retained as well. A 24-foot-wide multi-use trail corridor (right-of-way), forming the San Pasqual Valley segment of the “Coast to Crest Trail,” shall be aligned to minimize impacts to sensitive resource areas and to agriculture. The San Pasqual Valley Plan also states that any future sand mining activities are to be located outside of the riparian corridor on land designated for agriculture. Periodic sand removal in the riparian open space corridor beyond maintenance of the 40-foot-wide pilot channel can be considered only if determined to be beneficial to the riparian corridor as part of the implementation of an approved restoration plan.

### **MHPA Exclusions and Guidelines**

The following areas are excluded from the MHPA in order to provide for current and future requirements of the City of San Diego Water Department (the property owner) and the County Water Authority (CWA). These requirements relate to either the City’s known Capital Improvement Program projects, the City’s proposed reservoir management program, or the CWA’s Emergency Storage Project. The notes under “MHPA Guidelines” include features that have been incorporated into the MHPA and thus were considered in the evaluation for species coverage. The guidelines are required to be implemented for take authorization, except if noted with an asterisk (\*). As appropriate, the MHPA guidelines noted with an asterisk should be considered during preserve assembly. The notes are keyed to the extent possible to specific locations on the accompanying figure for the area. The notes include: 1) approved project requirements (e.g., Note #C1); 2) guidelines to be incorporated into the design of future projects within or adjacent to the MHPA (e.g., Note #D11); 3) clarifications of the MHPA design in a particular area (e.g., Note #A8); or 4) locations of existing and future uses within or adjacent to the MHPA (e.g., Note #B8). Responsibility for implementation will be determined at the time of discretionary approvals for individual projects. Except if noted, the MHPA guidelines do not apply to existing approved site-specific project entitlements, unless a modification,

revision, or amendment to the entitlement is requested by the property owner. The following notes are MHPA Guidelines rather than exclusions: Note #13 under Hodges Reservoir/Hodges East and Note #'s 3-6 under San Pasqual Valley.

### **Hodges Reservoir/Hodges East**

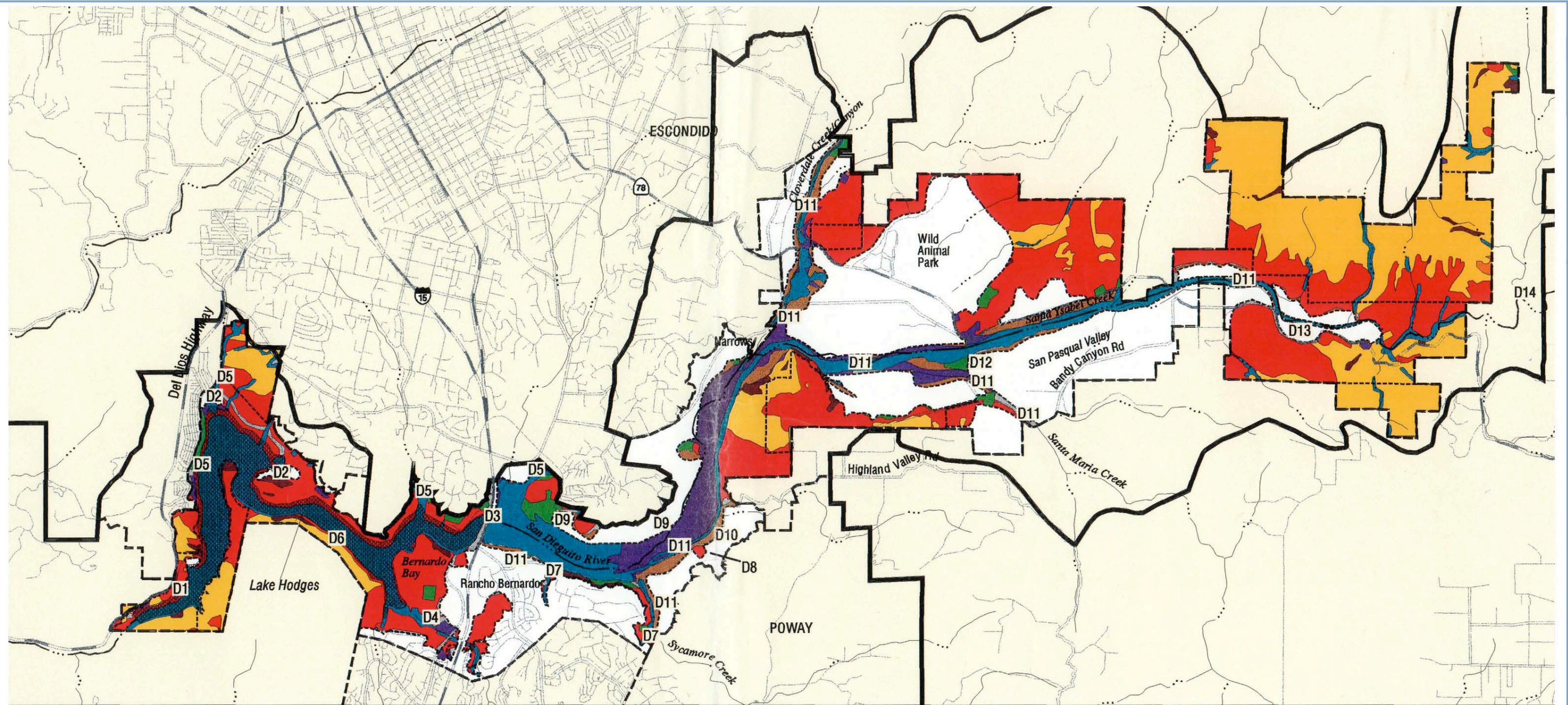
1. The areas not designated as open space in the San Pasqual Valley Plan;
2. Where owned by the City of San Diego, the area of the existing Hodges Reservoir and dam, including the shoreline area within 300 feet horizontally from the high water level for water elevation of spillway (315 feet msl), for water quality protection;
3. Existing employee residences (D1 on **Figure 7**);
4. Existing boating and recreation facilities (located within active park use areas, D2 on **Figure 7**);
5. Area for the proposed pump station and pipeline to the CWA's Second Aqueduct (approximately 5 acres, site not yet identified). This City project would not be pursued if the alternative CWA project, as identified in item #16 below, is implemented;
6. Area for the proposed I-15 bridge widening (approximately 6 acres, D3 on **Figure 7**);
7. Area for the existing pump station #77 and related pipelines and facilities (D4 on **Figure 7**);
8. Area for the existing CWA aqueduct crossing;
9. Approximately 70 acres for urban runoff diversion and water quality protection along Green Valley, Del Dios, Felicita, and Kit Carson creeks (approximate general location on the north side of the lake at six major drainages, D5 on **Figure 7**);
10. Area for the proposed North City Water Treatment Plant (approximately 40 acres to be located somewhere on the south side of the lake, D6 on **Figure 7**);
11. Approximately 35 acres for urban runoff diversion and water quality protection in areas where existing Rancho Bernardo developments encroach near Hodges Reservoir (approximate general location on the south side of the lake at four major drainages, D7 on **Figure 7**);
12. Existing and proposed expansion for the Aquaculture III facilities (approximately six acres, D8 on **Figure 7**);

13. Interim agricultural use on City lands in this area. The goal is eventual long-term restoration to native upland habitat (D9 on **Figure 7**);
14. Area for the proposed pumped storage project to the Olivenhain (formerly Mount Israel) Reservoir (approximately eight acres);
15. All existing and proposed access and service roads;
16. All proposed pump stations associated with the CWA Emergency Storage Project including, but not limited to, the North City Pump Station (PS2), the Hodges Re-operation Pump Station (PS6), and the Hodges to Olivenhain Reservoir Pump Station (PS9) (approximately five acres each site); and
17. All permanent impact areas related to the CWA's proposed staging areas, tunnel portals, permanent access roads, and interconnection facilities associated with pipeline and pump station construction (approximately 13 acres).

### **San Pasqual Valley**

1. Areas not designated as open space in the San Pasqual Valley Plan;
2. Existing and proposed water wells and pipelines and future recharge basin (approximately 30 acres near the existing aquaculture plant, D10 on **Figure 7**);
3. Existing leases. As leases come up for renewal, modify existing leases to incorporate the riparian corridor as depicted on the MHPA boundaries (D11 on **Figure 7**) and in the Open Space Element of the San Pasqual Valley Plan. Minimum corridor width should be 300-500 feet. If the land use is changed (i.e., requires a community plan amendment), adjacency guidelines will be incorporated into the project design;
4. Location of future sand mining operations to be outside the riparian corridor and limited to land designated for agriculture (approximately 26 acres, D12 on **Figure 7**). Periodic sand removal in the riparian corridor beyond maintenance of the 40-foot pilot channel can be considered only if determined to be beneficial to the riparian corridor as part of an approved restoration plan;
5. Existing orchards. Any change in agriculture use (i.e., from orchard to any other use) shall trigger an evaluation of widening the existing wildlife corridor, which generally follows Santa Ysabel Creek, to improve its functioning as a regional corridor (D13 on **Figure 7**).
6. A minimum 1,000-foot-wide corridor will be maintained along Santa Ysabel Creek through the Water Department owned property east to the Cleveland National Forest (D14 on **Figure 7**).





### Vegetation Communities

- |                              |                     |
|------------------------------|---------------------|
| Coastal Sage Scrub           | Oak Woodland        |
| Chaparral                    | Coniferous Forest   |
| Coastal Sage Scrub/Chaparral | Beach/Foredunes     |
| Grassland                    | Eucalyptus Woodland |
| Riparian/Wetlands            | Disturbed Habitat   |
|                              | Shallow Bay         |

Letter/number indicates MHPA Guideline. See text.



- |             |
|-------------|
| Developed   |
| Agriculture |

- |                  |
|------------------|
| Subarea Boundary |
| MHPA Boundary    |
| Water District   |
| Subarea          |
| Military Lands   |

### Base Map Features

- |                      |              |
|----------------------|--------------|
| MSCP Boundary        | Major Stream |
| U.S. - Mexico Border | Minor Stream |
| Freeway              | Lake/Lagoon  |
| Major Road           |              |
| Minor Road           |              |



## Conserved Vegetation Communities in Hodges Cornerstone Lands and San Pasqual Valley

MSCP Subarea Plan

7

FIGURE



## **Otay Lakes**

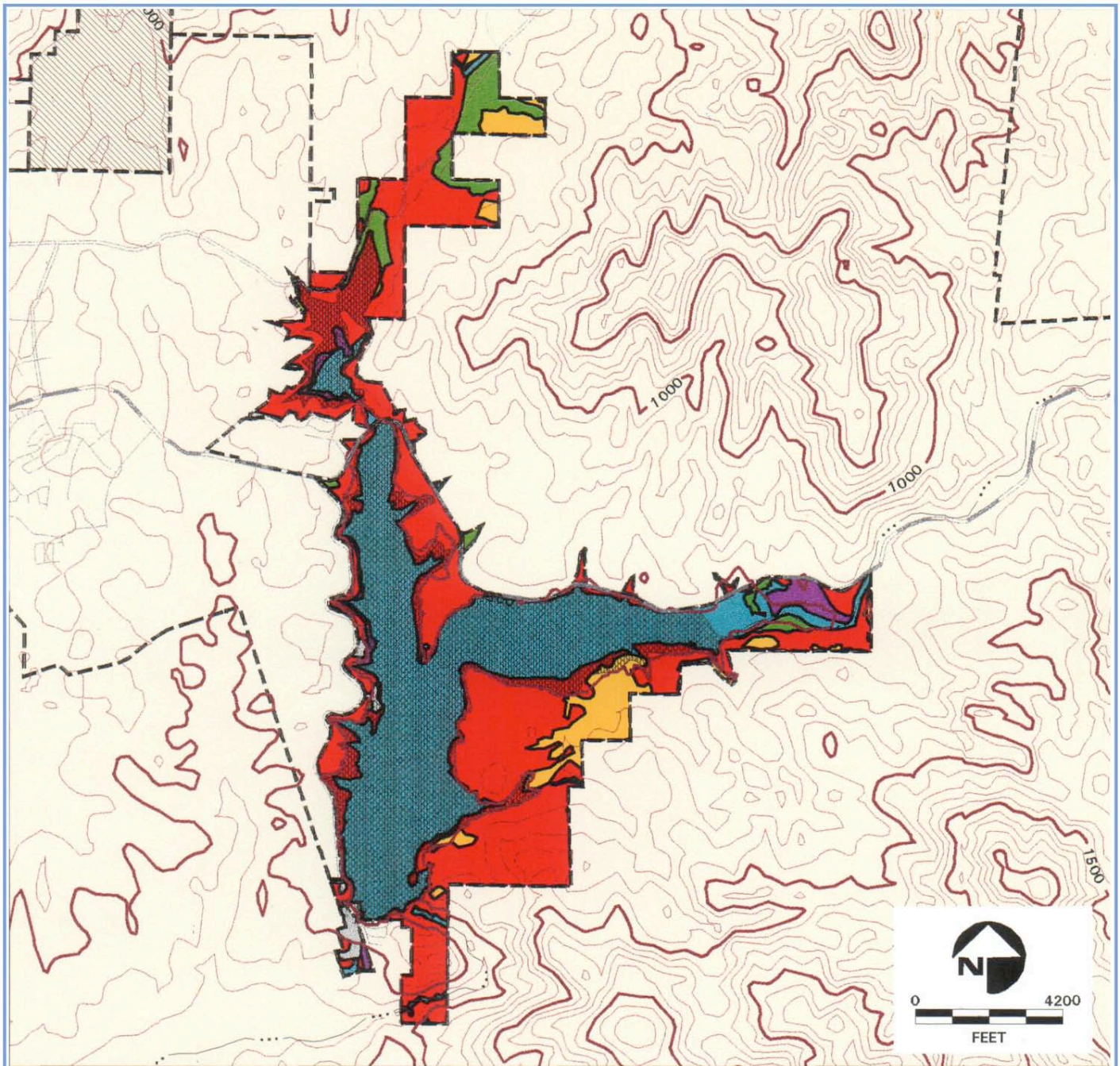
The Water Department-owned lands around the Otay Lakes are known for high quality coastal sage scrub, supporting over 40 pairs of gnatcatchers. A significant riparian forest occurs where Dulzura Creek empties into Lower Otay Lake, and raptors are abundant in the large expanses of grassland and sage scrub around the lakes.

The land around Upper Otay Lake is leased for grazing, and the CDFG has a fish-stocking agreement with the City. The City leases the area east of Lower Otay Lake for an aircraft landing strip and allows public fishing access on Lower Otay Lake. The Olympic Training Center is planned for the west side of Lower Otay Lake. The areas south of the lakes are naturally vegetated lands used for watershed management. Conservation of City of San Diego lands around Otay Lakes will form the Cornerstone Lands for a natural open space corridor in the South Bay area. Vegetation communities around Otay Lakes are depicted in **Figure 8**.

## **MHPA Exclusions**

The following areas are excluded from the MHPA in order to provide for current and future requirements of the City of San Diego Water Utilities Department (the property owner):












1. Existing Otay Water Treatment Plant (WTP) and proposed expansion (approximately five acres);
2. A 50-foot right-of-way (approximately 23 acres) for pipelines within the eastern edge of the Otay Lakes Cornerstone Lands as depicted on **Figure 8**; right-of-way to be aligned approximately along the south and east side of Lower Otay Lake;
3. Existing Lower Otay boat launching facilities and associated recreation facilities;
4. Where owned by the City of San Diego, the area of Lower Otay Lake and dam, including the shoreline area within 300 feet horizontally from the high water level, water elevation of spillway with gates closed at 490.7 feet, for water quality protection;
5. Area of Upper Otay Lake and dam (i.e., the area enclosed by the 550-foot contour) and the shoreline area within 300 feet horizontally from the 550-foot contour;
6. Existing County Park leased from the City;
7. Existing and proposed Olympic Training Center boat facilities;
8. All existing access and service roads and existing lake recreation facilities.



### Vegetation Communities

	Coastal Sage Scrub		Coniferous Forest
	Chaparral		Beach/Foredunes
	Coastal Sage Scrub/Chaparral		Eucalyptus Woodland
	Grassland		Disturbed Habitat
	Riparian/Wetlands		Shallow Bay
	Oak Woodland		Developed
			Agriculture

### Base Map Features

	Subarea Boundary		MSCP Boundary
	MHPA Boundary		U.S. - Mexico Border
	Water District		Freeway
	Subarea Military Lands		Major Road
			Minor Road
			Major Stream
			Lake/Lagoon



Otay Lakes Cornerstone Lands with Vegetation Communities Identified

MSCP Subarea Plan

8

FIGURE

## **San Vicente Reservoir**

The area around San Vicente Reservoir provides important north-south and east-west connections and supports a rich assemblage of sensitive plant and wildlife species. Important habitats in this area include coastal sage scrub, oak woodland, and oak and riparian forest. The reservoir is used as a year-round water source by wildlife and as a wintering habitat for waterfowl and bald eagles. The lake is used for water recreation on a part-time basis. San Vicente Reservoir has been identified by the CWA as a possible location for increased storage of emergency water supplies. Three of the four primary storage alternatives currently being examined include modifications to San Vicente Reservoir. Alternatives range from changing the way the reservoir is operated to raising the water level by approximately 50-80 ft. Cornerstone Lands would apply only to lands above this future level of expansion. Conservation of these lands around the reservoir will form the cornerstone for an east-west natural open space corridor that eventually will include key lands between San Vicente Reservoir and NAS Miramar and the U.S. Forest Service. Vegetation communities around San Vicente Reservoir are depicted in **Figure 9**.

## **MHPA Exclusions**

The following areas are excluded from the MHPA in order to provide for current and future requirements of the City of San Diego Water Department (the property owner) and the CWA. These requirements relate to either the City's known Capital Improvement Program **Figure 9** projects, the City's proposed reservoir management program, or the CWA's Emergency Storage Project:

1. Area of the existing San Vicente Reservoir and dam, within 300 feet horizontally from the ultimate high water level;
2. All permanent impact areas related to the CWA's proposed staging areas, tunnel portals, permanent access roads, relocated roads, and interconnection facilities associated with reservoir expansion and pipeline and pump station construction (approximately 88 acres);
3. Right-of-way of the existing CWA bypass pipeline;
4. Area for the proposed pump station (approximately 5 acres) at the bottom of the dam;
5. Area for the proposed pump station and pipeline to Miramar Lake (approximately 11 acres);
6. Area for the proposed Boulder Valley Pumped Storage project (approximately 162 acres);

7. Right-of-way for a pipeline from the terminus of the existing Sutherland/San Vicente pipeline to San Vicente Reservoir, aligned along San Vicente Creek (approximately eight acres);
8. Area below the dam for the proposed sand and rock mining operation for aggregate materials for the dam expansion (approximately 33 acres, 5,000 feet wide by 2,800 feet long);
9. Right-of-way for the proposed reclaimed water pipeline from the North City Wastewater Treatment Plant into the reservoir (approximately three acres);
10. Existing employee residences;
11. Area sufficient for new boat launch and recreation facilities (ten acres) and access road from Highway 67 above the high water line of the proposed expanded reservoir (i.e., above elevation 800 feet);
12. All existing access and service roads, lake recreation facilities, and similar or proposed facilities associated with the CWA's Emergency Storage Project.

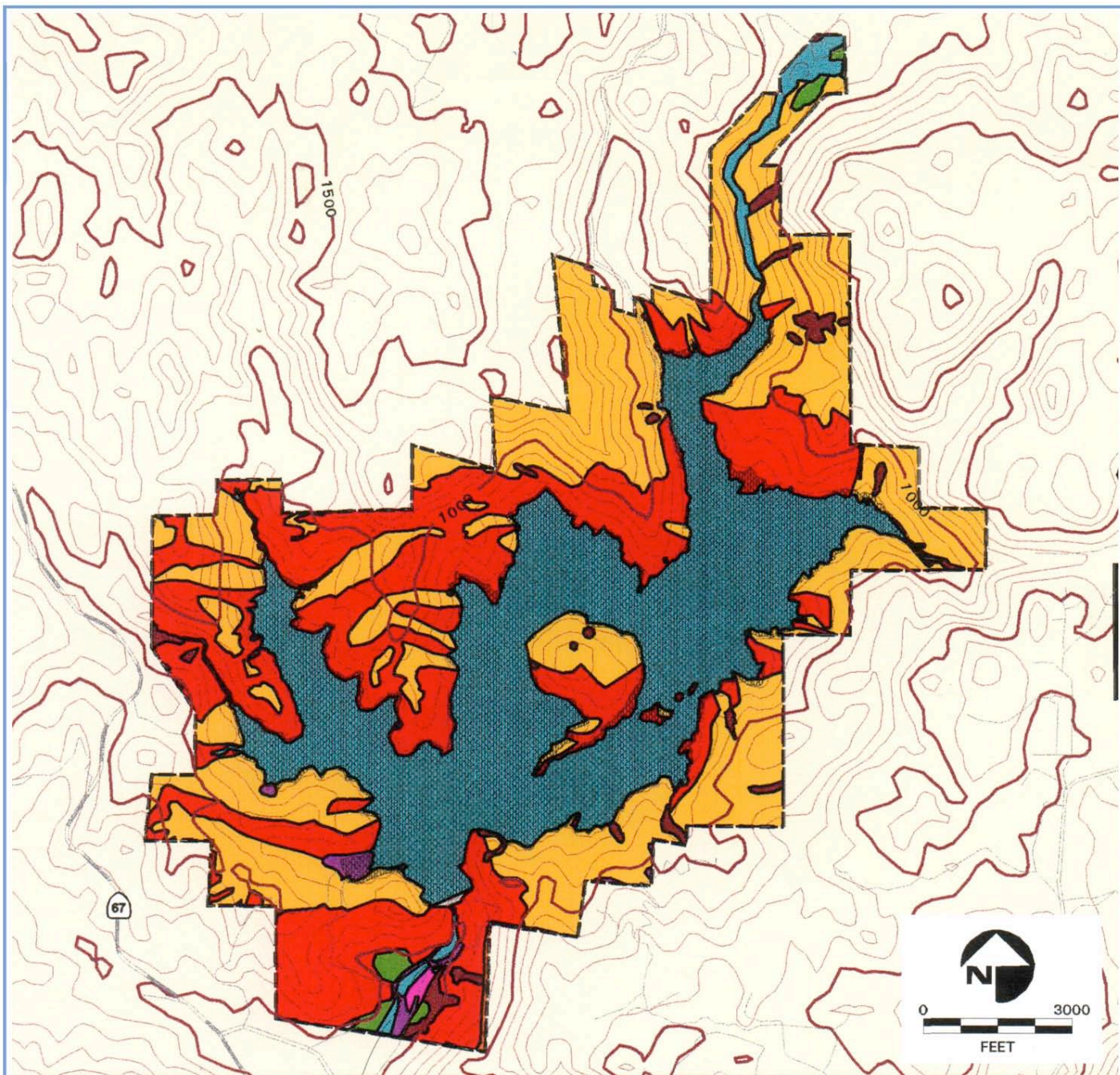
### **Marron Valley**

Marron Valley occupies approximately 2,600 acres in the southeastern portion of the MSCP study area and supports the greatest concentration of target species and other sensitive species in the study area. The large drainages through this area (e.g., the Tijuana River, Bee Canyon, and Cottonwood Creek) support significant stands of riparian habitat and function as major wildlife corridors. These riparian areas offer excellent opportunities for restoration and enhancement. Much of the area is currently leased for cattle grazing. Portions of the lands are overgrazed, but likely could be restored with removal of grazing or decreased intensity and rotation of grazing. Management of this area for biological resources will pose special problems because of its remoteness and proximity to the Mexican border. Conservation of Marron Valley will provide wildlife habitat, offer opportunities for the creation and enhancement of various habitat types (i.e., riparian, coastal sage scrub), and extend the sphere of protected lands surrounding the San Ysidro Mountains. Vegetation communities in Marron Valley are depicted in **Figure 10**.

### **MHPA Exclusions**

No exclusions required.
















### Vegetation Communities

	Coastal Sage Scrub		Coniferous Forest
	Chaparral		Beach/Foredunes
	Coastal Sage Scrub/Chaparral		Eucalyptus Woodland
	Grassland		Disturbed Habitat
	Riparian/Wetlands		Shallow Bay
	Oak Woodland		Developed
			Agriculture

### Base Map Features

	Subarea Boundary		MSCP Boundary
	MHPA Boundary		U.S. - Mexico Border
	Water District		Freeway
	Subarea Military Lands		Major Road
			Minor Road
			Major Stream
			Lake/Lagoon

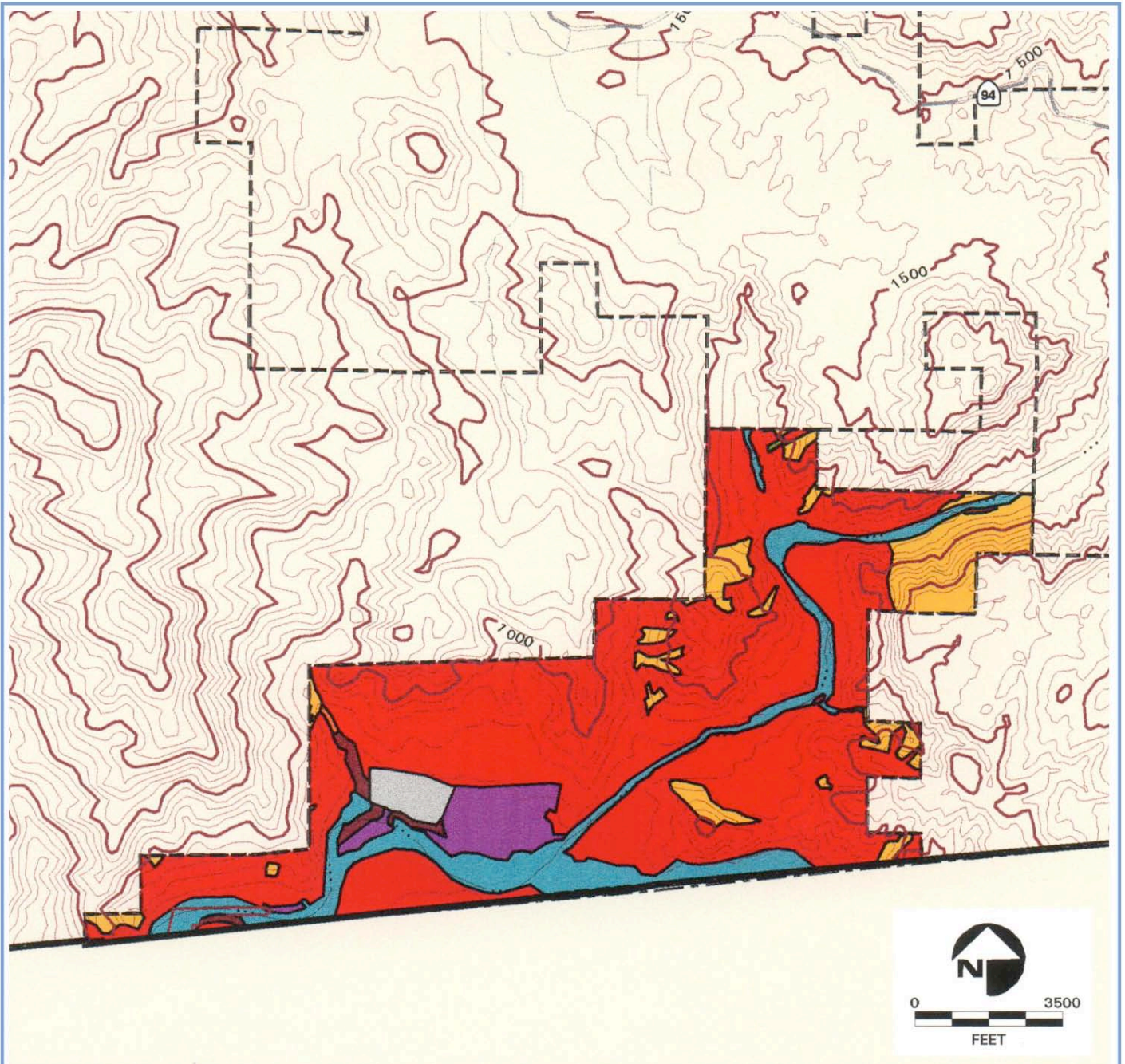


**San Vicente Cornerstone Lands with Vegetation Communities Identified**  
**MSCP Subarea Plan**

**9**

**FIGURE**
















### Vegetation Communities

	Coastal Sage Scrub		Coniferous Forest
	Chaparral		Beach/Foredunes
	Coastal Sage Scrub/Chaparral		Eucalyptus Woodland
	Grassland		Disturbed Habitat
	Riparian/Wetlands		Shallow Bay
	Oak Woodland		Developed
			Agriculture

### Base Map Features

	Subarea Boundary		MSCP Boundary
	MHPA Boundary		U.S. - Mexico Border
	Water District		Freeway
	Subarea Military Lands		Major Road
			Minor Road
			Major Stream
			Lake/Lagoon



**Marron Valley Cornerstone Lands with Vegetation Communities Identified**  
**MSCP Subarea Plan**

**10**  
**FIGURE**

### 1.3 COVERED SPECIES LIST

#### Flora and Fauna Covered by the Multiple Species Conservation Program

##### Flora:

<i>Acanthomintha ilicifolia</i>	San Diego thornmint	PE/SE/1B/232
<i>Agave shawii</i>	Shaw's agave	--/--/2/333
<i>Ambrosia pumila</i>	San Diego ambrosia	--/--/1B/322
<i>Aphanisma blitoides</i>	Aphanisma	--/S2/3/222
<i>Arctostaphylos glandulosa</i> var. <i>crassifolia</i>	Del Mar manzanita	FE/--/1B/332
<i>Arctostaphylos otayensis</i>	Otay Manzanita	--/--/1B/323
<i>Astragalus tener</i> var. <i>titi</i>	Coastal dunes milk vetch	F1/SE/1B/333
<i>Baccharis vanessae</i>	Encinitas Coyote brush	F1/SE/1B/233
<i>Brodiaea filifolia</i>	Thread-leaved brodiaea	PT/SE/1B/333
<i>Brodisea occuttii</i>	Orcutt's brodiaea	--/--/1B/132
<i>Calamagrostis (Satureja) densa</i>	Dense reed grass	--/--/4/122
<i>Calochortus dunnii</i>	Dunn's mariposa lily	--/SR/1B/222
<i>Caulanthus stenocarpus</i>	Slender-pod jewelflower	--/SR/--/--
<i>Ceanothus cyaneus</i>	Lakeside ceanothus	--/--/1B/322
<i>Ceanothus verrucosus</i>	Wart-stemmed ceanothus	--/--/1B/121
<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>	Salt marsh bird's-beak	FE/SE/1B/222
<i>Cordylanthus orcuttianus</i>	Orcutt's bird's-beak	--/--/2/331
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	Del Mar sand aster	--/--/1B/323
<i>Cupressus forbesii</i>	Tecate cypress	--/--/1B/322
<i>Dudleya blochmaniae</i> ssp. <i>brevifolia</i>	Short-leaved dudleya	--/SE/1B/333
<i>Dudleya variegata</i>	Variegated dudleya	--/--/4/122
<i>Dudleya viscida</i>	Sticky dudleya	F1--/1B/323
<i>Ericameria palmeri</i> ssp. <i>palmeri</i>	Palmer's ericameria	--/--/2/221
<i>Erysimum ammodophilum</i>	Coast wallflower	--/--/4/123
<i>Eryngium aristulatum</i> ssp. <i>parishii</i>	San Diego button-celery	FE/SE/1B/232
<i>Ferocactus viridescens</i>	San Diego barrel cactus	--/--/2/131
<i>Hemizonia conjugens</i>	Otay tarplant	PE/SE/1B/332
<i>Lepechinia cardiophylla</i>	Heart-leaved pitcher sage	--/--/1B/322
<i>Lepechinia ganderi</i>	Gander's pitcher sage	--/--/1B/312
<i>Lotus nuttallianus</i>	Nuttall's lotus	--/--/1B/332
<i>Mahonia (Berberis) nevinii</i>	Nevin's barberry	F1/SE/1B/333
<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	Felt-leaved monardella	--/--/1B/223
<i>Monardella linoides</i> ssp. <i>viminera</i>	Willow monardella	PE/SE/1B/232
<i>Muilla clevelandii</i>	San Diego goldenstar	--/--/1B/222
<i>Navarretia fossalia</i>	Prostrate navarretia	--/--/1B/232
<i>Nolina interrata</i>	Denesa bear-grass	F1/SE/1B/332
<i>Opuntia parryi</i> var. <i>serpentina</i>	Snake cholla	--/--/1B/332
<i>Orcuttia californica</i>	California Orcutt grass	FE/SE/1B/332
<i>Pogogyne abramsii</i>	San Diego mesa mint	FE/SE/1B/233
<i>Pogogyne nudiuscula</i>	Otay Mesa mint	F1/SE/1B/332
<i>Pinus torreyana</i> ssp. <i>torreyana</i>	Torrey pine (native populations)	--/--/1B/323
<i>Rosa minutifolia</i>	Small leaved rose	--/SE/2/331
<i>Satureja chandleri</i>	San Miguel savory	--/--/4/122
<i>Senecio ganderi</i>	Gander's butterweed	--/SR/1B/323
<i>Solanum tenuilobatum</i>	Narrow-leaved nightshade	--/--/--/--
<i>Tetracoccus dioicus</i>	Parry's tetracoccus	--/--/1B/322



## Fauna:

<i>Panoquina errans</i>	Saltmarsh skipper	--/--
<i>Mitoura thornei</i>	Thorne's hairstreak	--/S2
<i>Branchinecta sandiegoensis</i>	San Diego fairy shrimp	FE/--
<i>Streptocephalus woottonii</i>	Riverside fairy shrimp	FE/--
<i>Bufo microscaphus ssp. californicus</i>	Arroyo southwestern toad	FE/SSC
<i>Rana aurora ssp. draytoni</i>	California red-legged frog	FT/SSC
<i>Clemmys marmorata ssp. pallida</i>	Southwestern pond turtle	--/SSC
<i>Chemidophorus hyperythrus ssp. beldingi</i>	Orange-throated whiptail	--/SSC
<i>Phrynosoma coronatum ssp. blainvillei</i>	San Diego horned lizard	--/SSC
<i>Accipiter cooperii</i>	Cooper's hawk	--/SSC
<i>Agelaius tricolor</i>	Tricolores blackbird	--/SSC
<i>Aguila chrysaetos</i>	Goleen Tagle	--/SSC
<i>Aimophila ruficeps ssp. canescens</i>	Southern California rofous crowned sparrow	--/SSC
<i>Branta canadensis ssp. moffitti</i>	Canada goose	--/--
<i>Buteo swainsoni</i>	Swainson's hawk	--/ST
<i>Buteo regalis</i>	Ferruginous hawk	--/SSC
<i>Campylorhynchus brunneicapillus ssp. couesi</i>	Coastal cactus wren	PE/SSC
<i>Charadrius alexandrinus ssp. nivosus</i>	Western snowy plover	FT/SSC
<i>Charadrius montanus</i>	Mountain plover	--/SSC
<i>Circus cyaneus</i>	Northern harrier	--/SSC
<i>Egretta rufescens</i>	Redish egret	--/--
<i>Empidonax traillii ssp. extimus</i>	SW. willow flycatcher	FE/SE
<i>Falco peregrinus anatum</i>	American peregrine falcon	--/ST
<i>Haliaeetus leucocephalus</i>	Bald eagle	FE/SE
<i>Numenius americanus</i>	Long-billed curlew	--/SSC
<i>Passerculus sandwichensis ssp. beldingi</i>	Belding's savannah sparrow	--/SE
<i>Passerculus sandwichensis ssp. rostratus</i>	Large-billed savannah sparooow	--/SSC
<i>Pelcanus occidentalis ssp. californicus</i>	California brown pelican	FE/SE
<i>Plegadis chihi</i>	White-faced ibis	--/SSC
<i>Poliophtila californica ssp. californica</i>	California gnatcatcher	FT/SSC
<i>Rallus longirostris ssp. levipes</i>	Light-footed clapper rail	FE/SE
<i>Sialia mexicana</i>	Western bluebird	--/--
<i>Speotyto (Athene) cunicularia ssp. hypugaea</i>	Burrowing owl	--/SSC
<i>Sterna elegans</i>	Elegant tern	--/SSC
<i>Sterna antillarum ssp. browni</i>	California least tern	FE/SE
<i>Vireo bellii ssp. pusillus</i>	Least Bell's vereoo	FE/SE
<i>Taxidea taxus</i>	American badger	--/SSC
<i>Felis concolor</i>	Mountain lion	--/--
<i>Odocoileus hemionus fuliginata</i>	Southern mule deer	--/--

F- Federal Listing

S – State of California Listing

CNPS – California Native Plant Society's (CNPS) List

RED – CNPS's Rarity, Endangerment and Distribution Code

The majority of the covered species are considered adequately conserved provided that the conditions described in "Species Evaluated For Coverage Under the MSCP" (Appendix A) are implemented. Refer to **Appendix A** for a full description of the conditions for coverage. Implementation of the conditions have been assured by incorporation of policies and/or guidelines into the appropriate section(s) of this Subarea Plan, associated land development regulations and/or biology guidelines.



## **1.4 LAND USE CONSIDERATIONS**

### **1.4.1 Compatible Land Uses**

The following land uses are considered conditionally compatible with the biological objectives of the MSCP and thus will be allowed within the City's MHPA:

- Passive recreation
- Utility lines and roads in compliance with policies in **1.4.2** below
- Limited water facilities and other essential public facilities
- Limited low density residential uses
- Brush Management (Zone 2)
- Limited agriculture

Under the proposed revised environmental land use regulations described in **Section 1.6**, development on private property in the MHPA will not exceed 25 percent of the parcel, with 75 percent remaining as open space. When combined with the 100 percent preservation in negotiated areas on private lands, the approximately 94 percent preservation on publicly owned lands in the MHPA, and strategic acquisitions, the overall 90 percent preservation goal within the City's MHPA can be met.

Some disturbed lands within the MHPA may be targeted for enhancement and restoration in order to more fully contribute to the functioning of the MHPA. Existing development within the MHPA such as single-family residences on A-1-10 lots are considered conditionally compatible. Expansion of existing permitted uses within the MHPA would need to be in compliance with applicable land use regulations and should provide measures to minimize impacts on the MHPA including lighting, noise, or uncontrolled access. Expansion of uses should be generally restricted to the existing approved development areas. Other existing uses within the MHPA which are not listed above may be managed for compatibility as noted above in **Section 1.2** or phased out in the long term.

### **1.4.2 General Planning Policies and Design Guidelines**

The following general planning policies and design guidelines should be applied in the review and approval of development projects within or adjacent to the MHPA. More specific policies and guidelines which are unique to individual MHPA areas are identified under **Sections 1.2.2 - 1.2.5**, and management policies and directives are in **Section 1.5**.

### **Roads and Utilities - Construction and Maintenance Policies:**

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

7. Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.
8. For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management **Section 1.5**.

### **Fencing, Lighting, and Signage**

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

### **Materials Storage**

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

### **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.

#### **1.4.3 Land Use Adjacency Guidelines**

Land uses planned or existing adjacent to the MHPA include single and multiple family residential, active recreation, commercial, industrial, agricultural, landfills, and extractive uses. Land uses adjacent to the MHPA will be managed to ensure minimal impacts to the MHPA. Consideration will be given to good planning principles in relation to adjacent land uses as described below. The following are adjacency guidelines that will 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. Many of these issues will be identified and addressed through the CEQA Process.

##### **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, 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. Zones 2 and 3 will be combined into one zone (Zone 2) and may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. Zone 2 will be increased by 30 feet, except in areas with a low fire hazard severity rating where no Zone 2 would be required. Brush management zones will not be greater in size that is currently required by the City's regulations. The amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the Zone 2 area will be the responsibility of a homeowners association or other private party.

For existing project and approved projects, the brush management zones, standards and locations, and clearing techniques will not change from those required under existing regulations.

### **Grading/Land Development**

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

## **1.5 FRAMEWORK MANAGEMENT PLAN**

### **1.5.1 Management Goals and Objectives**

The habitat management aspect of the City of San Diego's MHPA is an important component of the MSCP, related to the goal of the Program. The overarching MSCP goal is 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.

Where land is preserved as part of the MSCP through acquisition, regulation, mitigation or other means, management is necessary to continue to ensure that the biological values are maintained over time, and that the species and habitats that have been set aside are adequately protected and remain viable.

The City will be responsible for and will continue the management and maintenance of its existing public lands (including those with conservation easement), at current levels. The City will also manage and maintain lands obtained as mitigation where those lands have been dedicated to the City in fee title or easement, and land acquired with regional funds within the City's MHPA boundaries. Likewise, the federal and state agencies will manage, maintain and monitor their present land holdings, as well as those they acquire on behalf of the MSCP, consistent with the MSCP. Lands in the MHPA which are set aside as open space through the development process but are not dedicated in fee to the City, or other acceptable entity, will be managed by the landowner consistent with approved mitigation, monitoring and reporting programs or permit conditions. Private owners of land within the MHPA, who are not third party beneficiaries, will have no additional obligations for the management or maintenance of their land.

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

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



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

This section lists general management guidelines relevant to the entire City MHPA system, followed by specific guidelines and recommendations for each planned area of the MHPA, including the 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 the other Cornerstone Lands. Each area is unique in terms of its existing conditions, MHPA configuration, public or private ownership of land, the existence and location of sensitive species, and management needs.

Based on the above management objectives, the recommended management directives that follow have been identified in order of priority. It is recognized that many of these directives cannot be implemented on approval of the Subarea Plan, but will instead occur over the life of the Subarea Plan. The ability to implement many of the management directives will be directly related to the availability of funding. In addition, some of the management directives may be implemented as part of mitigation requirements for development projects both within and adjacent to the MHPA. Some of the tasks are also expected to be implemented as research efforts by the scientific and academic community at large.

The management directives are organized by priority into the following two categories. The priorities are intended to assist in the decisions on where to spend limited funds and direct mitigation efforts:

Priority 1: Directives that protect the resources in the MHPA, including management actions that are necessary to ensure that the Covered Species are adequately protected. Refer to Appendix A “Species Evaluated for Coverage under the MSCP.”

Priority 2: Directives other than those required for covered species status and other long-term items that may be implemented during the life of the Subarea Plan as funding becomes available.

The management directives listed in this section are a preliminary view of the management requirements of the MHPA within the City of San Diego. It is expected that modifications will be needed over time, based on realities encountered in the field as the MHPA is assembled. Monitoring of selected target species and other sensitive or constrained areas within the MHPA will occur as described in the MSCP Biological Monitoring Plan (under separate cover) with a general description of the monitoring plan provided in **Section 1.5.13**. The monitoring plan will inform MHPA (preserve) managers and staff of the general trends of wildlife use and species preservation, as well as indicate areas where special management focus is needed. Cooperation between the field managers, MSCP habitat management technical committee, and the wildlife agencies, is expected to occur to review and discuss existing and new management issues and to respond with practical, case-sensitive solutions. These solutions should be documented, and this management plan should be revised as needed to reflect new information.

An integral part of the management component is the previous section on Land Use Considerations that lists compatible land uses and states policies and guidelines related to the development of land uses within and adjacent to the MHPA. These policies and guidelines should be incorporated into projects during the land development review process. It should be noted that some of the management directives listed in the following sections may already be included as conditions of approved projects within or adjacent to the MHPA and are therefore considered part of this Subarea Plan.

### **1.5.2 General Management Directives**

The following general management directives apply to all areas of the City of San Diego's MSCP Subarea Plan, as appropriate.

#### **Mitigation**

Mitigation, when required as part of project approvals, shall be performed in accordance with the City of San Diego Environmentally Sensitive Lands Ordinance and Biology Guidelines.

#### **Restoration**

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

## **Public Access, Trails, and Recreation**

### Priority 1:

1. Provide sufficient signage to clearly identify public access to the MHPA. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. Use appropriate type of barrier based on location, setting and use. For example, use chain link or cattle wire to direct wildlife movement, and natural rocks/boulders or split rail fencing to direct public access away from sensitive areas. Lands acquired through mitigation may preclude public access in order to satisfy mitigation requirements.
2. Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of urban land uses adjacent to the MHPA, or the seam between land uses (e.g., agriculture/habitat), and follow existing dirt roads as much as possible rather than entering habitat or wildlife movement areas. Avoid locating trails between two different habitat types (ecotones) for longer than necessary due to the typically heightened resource sensitivity in those locations.
3. In general, avoid paving trails unless management and monitoring evidence shows otherwise. Clearly demarcate and monitor trails for degradation and off-trail access and use. Provide trail repair/maintenance as needed. Undertake measures to counter the effects of trail erosion including the use of stone or wood crossjoints, edge plantings of native grasses, and mulching of the trail.
4. Minimize trail widths to reduce impacts to critical resources. For the most part, do not locate trails wider than four feet in core areas or wildlife corridors. Exceptions are in the San Pasqual Valley where other agreements have been made, in Mission Trails Regional Park, where appropriate, and in other areas where necessary to safely accommodate multiple uses or disabled access. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.
5. Limit the extent and location of equestrian trails to the less sensitive areas of the MHPA. Locate staging areas for equestrian uses at a sufficient distance (e.g., 300-500 feet) from areas with riparian and coastal sage scrub habitats to ensure that the biological values are not impaired.
6. Off-road or cross-country vehicle activity is an incompatible use in the MHPA, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical, or allow to regenerate.



7. Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, in order to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted, restrain pets on leashes.
8. Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.
9. 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, and 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 re-invasion. Priorities for removal should be based on invasive species' biology (time of flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell's vireo. Avoid removal activities during the reproductive seasons of sensitive species and avoid/ minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment, and any other potentially harmful or impact-causing methodologies, to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.

Priority 2:

1. If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal. Utilize trained volunteers to monitor and remove exotic species as part of a neighborhood, community, school, or other organization's activities program (such as Friends of Peñasquitos Preserve has done). If

done on a volunteer basis, prepare and provide information on methods and timing of removal to staff and the public if requested. For giant reed removal, the Riverside County multi-jurisdictional management effort and experience should be investigated and relevant techniques used. Similarly, tamarisk removal should use the Nature Conservancy's experience in the Southern California desert regions, while artichoke thistle removal should reference the Nature Conservancy's experience in Irvine. Other relevant knowledge and experience is available from the California Exotic Pest Plant Council and the Friends of Los Peñasquitos Canyon Preserve.

2. Conduct an assessment of the need for cowbird trapping in each area of the MHPA where cattle, horses, or other animals are kept, as recommended by the habitat management technical committee in coordination with the wildlife agencies.
3. If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.
4. On a case by case basis some limited trapping of non-native predators may be necessary at strategic locations, and where determined feasible to protect ground and shrub-nesting birds, lizards, and other sensitive species from excessive predation. This management directive may be considered a Priority 1 if necessary to meet the conditions for species coverage. If implemented, the program would only be on a temporary basis and where a significant problem has been identified and therefore needed to maintain balance of wildlife in the MHPA. The program would be operated in a humane manner, providing adequate shade and water, and checking all traps twice daily. A domestic animals release component would be incorporated into the program. Provide signage at access points and noticing of adjacent residents to inform people that trapping occurs, and how to retrieve and contain their pets.

### **Flood Control**

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

#### Priority 1:

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



## Priority 2:

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

### **1.5.3 Specific Management Policies and Directives for the Otay Mesa Area**

#### **Background**

##### Goals and Objectives

The Otay Mesa area consists primarily of a large mesa, with slopes and deep canyons draining into the Otay River Valley or towards Mexico. One linkage connects habitat areas south to north across Otay Mesa Road. In spite of and due to the constraints on this land, the optimum future condition envisioned for the Otay Mesa area is a network of open and relatively undisturbed canyons containing a full ensemble of native species which provide functional wildlife habitat and movement capability. Integrated into the canyon network will be recreational trails and border patrol access roads. A complete description of Otay Mesa is contained in **Section 1.2.1**.

#### **Covered Species**

Covered species in this area include:

##### **Plants**

California orcutt grass  
Coast barrel cactus  
Otay Mesa mint  
Otay tarplant  
Orcutt's bird's beak  
Orcutt's brodiaea  
Prostrate navarretia  
San Diego goldenstar  
San Diego thorn-mint  
Small-leaved rose  
Snake cholla  
Variegated dudleya  
San Diego button-celery

##### **Animals**

Burrowing owl  
California gnatcatcher  
Cactus wren  
Cooper's hawk  
Golden eagle  
Northern harrier  
Orange-throated whiptail  
Peregrine falcon  
Riverside fairy shrimp  
San Diego fairy shrimp  
San Diego horned lizard

## **Major Issues**

The major issues that require consideration for management in the Otay Mesa area are the following, in order of priority:

1. Intense land uses and activities adjacent to and in covered species habitat and linkages.
2. Off-road vehicle activity.
3. Dumping, litter and vandalism.
4. Enhancement and restoration needs.
5. Exotic (non-native), invasive plants and animals.
6. Illegal immigration and border patrol activities.
7. Utility, facility and road repair, construction and maintenance activities.

## **Overall Management Policies and Directives for Otay Mesa**

The following general management directives apply to the Otay Mesa area as a whole; long-range policy documents pertinent to the area have been reviewed and incorporated by reference.

### **Otay Mesa Community Plan**

The Otay Mesa Community Plan (1984) contains lists and maps of vernal pools and sensitive species, as well as descriptions of native vegetation, wildlife, and the ecological significance of the Otay Mesa area. The MHPA boundaries closely follow the open space designation in the adopted plan for the area south of Otay Mesa Road, but have made modifications in the north area by adding substantial areas for preservation. The Open Space Element provides some guidance for the preservation of natural resources.

## **Other General Policies**

### **Priority 1:**

No unauthorized motorized vehicles except border patrol, MHPA (preserve) managers, maintenance personnel or emergency vehicles will be allowed on any trails or off-trail in the MHPA. The border patrol should restrict vehicle use to the existing access roads as much as feasible, to avoid disturbance of habitat.

1. Remove all trash, hazardous materials, and vehicles from the MHPA prior to transfer from private into public ownership and/or management. If hazardous materials remain, these areas should be signed to indicate their locations and made off-limits to people.
2. Inventory vernal pool areas within the Otay Mesa area for sensitive and target species where not previously or recently done, and assess for enhancement/restoration needs or opportunities, general status, and potential threats.

Priority 2:

1. Assess vernal pool areas proposed for development (e.g., approved development projects or proposed regional transportation facilities such as State Routes 905 and 125) for transplantation of sensitive plants and soils containing seedbanks of sensitive flora and fauna. Include in mitigation programs arrangements for proper timing of soil and plant removal, proper storage if necessary, and appropriate timing of enhancement/restoration efforts, including transplantation.

**Specific Management Directives for Otay Mesa (Figure 11 - Priority 1 only)**

**Northwest Otay Mesa**

Priority 1:

1. Protect the area with concentrations of Ferocactus, Dudleya, and succulents on the ridge located in the northeast corner of the California Terraces from trampling and poaching of plants. Provide barriers to this area that accommodate wildlife movement.
2. Regular enforcement patrols may be necessary in Dennery Canyon and its tributaries to prevent vandalism, poaching, and off-road vehicle activity.
3. The wildlife crossings under Otay Mesa Road and SR-905 are the only link from south to north Otay Mesa. These crossings must be kept free of debris, and illegal encampments. Provide screening of this area along both sides from residential and other adjacent development, and provide limited cover for wildlife within the crossing area that is compatible with border patrol activities. Restrict night lighting near this crossing.

Priority 2:

1. Evaluate the mesa north of Brown Field for potential research opportunities in studying natural regeneration. If regeneration is not possible, pursue restoration of disturbed habitats in this area.



## **Southern Otay Mesa**

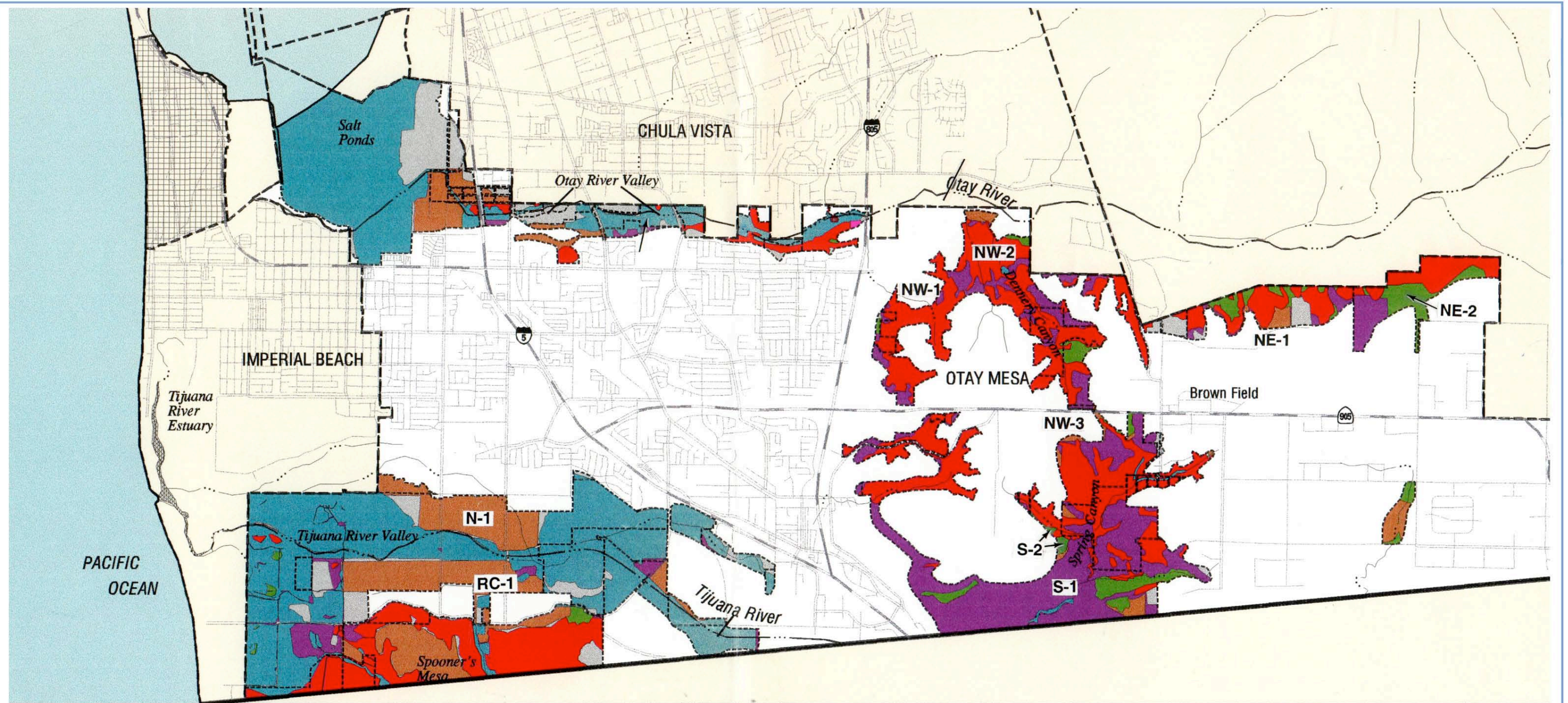
### Priority 1:

1. Continuous coordination with the border patrol will be necessary to ensure continued awareness of the MHPA and cooperation in maintenance. The presence of the border patrol in this area should help to make the MHPA safer for visitors. If possible, improve coordination with the border patrol to aid in the identification and prevention of vandalism, off-road vehicle use, dumping, and other disturbances to habitat.
2. Install barriers and signage along Spring Canyon where agriculture or development abuts the MHPA.

### Priority 2:

1. Provide educational materials and training on the MSCP and on native wildlife to border patrol agents and other public agency personnel working in the Otay Mesa border area to encourage sensitive behavior towards wildlife and its habitat, and to discourage unnecessary off-road vehicle use in sensitive areas.
2. Ensure that the night lighting along the border intrudes as little as possible on lands in the interior of the MHPA.
3. Assess and prioritize the Spring Canyon area for restoration of disturbed areas. Include existing roads and those determined not to be needed for border patrol activities in the restoration assessment. Burned areas should not need restoration, but off-road use and other disturbed areas should either be restored or other steps taken to encourage regeneration. This could offer potential research opportunities.





### Vegetation Communities

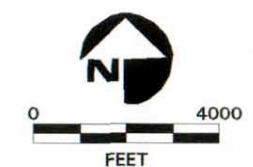
Coastal Sage Scrub	Oak Woodland	Developed
Chaparral	Coniferous Forest	Agriculture
Coastal Sage Scrub/Chaparral	Beach/Foredunes	
Grassland	Eucalyptus Woodland	
Riparian/Wetlands	Disturbed Habitat	
	Shallow Bay	

Number indicates reference in text.

### Base Map Features

MSCP Boundary	Major Stream
U.S. - Mexico Border	Minor Stream
Freeway	Lake/Lagoon
Major Road	
Minor Road	

Subarea Boundary
MHPA Boundary
Water District
Subarea
Military Lands



## Preserve Management: Specific Management Recommendations, Priority 1, City of San Diego MHPA - Southern Area

MSCP Subarea Plan

11

FIGURE



## 1.5.4 Specific Management Policies and Directives for the Otay River Valley

### Background

#### Goals and Objectives

The optimum future condition for the Otay River Valley would be a fairly unrestricted floodplain containing natural riparian and wetland habitats interspersed with both active and passive recreational areas, and edged by both natural slopes and adjacent developed areas. Although the valley is narrow and defined, all future uses within the area would strive to maintain and enhance healthy natural processes and provide continuous native habitats for wildlife movement and sensitive species conservation, while providing recreational opportunities and an improved quality of life and environment for local residents. A complete description of the Otay River Valley is contained in **Section 1.2.1**.

### Covered Species

Covered species in the Otay River Valley include:

#### Plants

Orcutt's birds' beak  
Otay tarplant  
San Diego barrel cactus  
Salt marsh bird's-beak  
Variegated dudleya

#### Animals

Belding's savannah sparrow  
California gnatcatcher  
California least tern  
Large-billed savannah sparrow  
Least Bell's vereo  
Light-footed clapper rail  
Western snowy plover

In addition, various raptors, including the northern harrier, use the valley for foraging and nesting.

### Major Issues

The major issues that require consideration for management in the Otay River Valley, based on the existing conditions as described in **Section 1.2**, are the following, in order of priority:

1. Intense land uses and activities adjacent to and in covered species habitat.
2. Dumping, litter, and vandalism.
3. Itinerant living quarters.
4. Mining, excavation, and related processing activities.
5. Exotic (non-native), invasive plants and animals.
6. Enhancement and restoration needs.

7. Water quality.
8. Utility, facility and road repair, construction, and maintenance activities.

### **Overall Management Policies and Directives for the Otay River Valley**

The following general management directives apply to the Otay River Valley; long-range policy documents relevant to the area have been reviewed and are incorporated by reference.

#### **Otay Mesa-Nestor Community Plan and Update**

The community plan (1978) covering this area designates the entire Otay River Valley as open space. The western portion of the river valley is designated for agriculture (consistent with General Plan open space designations). Goals within the plan include conserving the Otay River Valley and floodplain as open space and protecting sensitive habitat areas from disruption. Land Use Sector 6, on pp. 72-73 of the community plan includes safeguards to protect habitat.

The May 1997 Community Plan update continues to recognize the Otay River Valley as an asset to open space, and modifies the open space element of the current plan slightly to match the Otay River Valley Regional Park Progress/Concept Plan proposal. Goals and strategies in the update call for conservation of the valley and its associated floodplain, and elimination of industrial and commercial uses. The plan also calls for provision of a continuous east-west wildlife corridor and contiguous natural habitat throughout the valley.

### **Other General Policies**

#### Priority 1:

1. Coordinate an invasive non-native plant removal program with the city of Chula Vista or in conjunction with a regional MSCP management program in order for effective, long-term management of this problem. In areas with least Bell's vireos, the removal program should be limited to the period between mid-September and mid-March of each year.

### **Specific Management Directives for the Otay River Valley (Figure 11 - Priority 1 only)**

West of I-5, Otay River Mouth Area

#### Priority 2:

1. In the long term, should salt production operations cease, restore the tidelands leased for salt mining to baylands by breaching the levees in several locations, if determined appropriate by the MSCP habitat management technical committee in consultation with the wildlife agencies.



2. Convert the agricultural area/tilled lands west of I-5 to sustainable agriculture (e.g., grain crops), or restore to native habitats to provide foraging areas for wildlife. Although appropriate habitats for this area appear to include wetlands (e.g., saltmarsh and riparian habitat) and grasslands, research into historic and possibly pre-historic land uses and habitat types in this area should be conducted to help guide restoration efforts if pursued.

I-5 to I-805

Priority 1:

1. The City Park and Recreation Department has organized volunteer efforts in conjunction with the Police Department to remove exotics and underbrush in the valley. Illegal encampments and criminal activities in and adjacent to the valley have spurred this effort in an attempt to control crime, improve public safety and enhance the recreational and public uses of the valley. These stewardship activities should continue, along with continued police enforcement; monitoring/enforcement against poaching and vandalism should also occur. Remove brush during the non-breeding/nesting season, by selective pruning if possible rather than mechanical removal, leaving various amounts of native plant understory in areas that are more visually accessible.

Priority 2:

1. Review for adequate maintenance the approximately seven-acre wetland restoration site required by the California Department of Fish and Game in 1993 of Fenton Materials as mitigation for impacts from their industrial/extraction processing site.
2. While the asphaltic and concrete processing and related industrial uses in the valley remain, monitoring and enforcing against the release of toxic or extraneous materials that pollute or otherwise detrimentally affect the ecology of sensitive species and habitats in the valley should continue.
3. In the long term, allow the riparian and wetland habitats in the valley to regenerate, except where active restoration is specified as a result of monitoring or for mitigation purposes. In the future, assess the riparian areas for management changes and needs which could offer future research opportunities.

### **1.5.5 Specific Management Policies and Directives for the Tijuana River Valley**

#### **Background**

#### **Goals and Objectives**

The optimum future condition for the Tijuana River Valley is a broad natural

floodplain containing riparian and wetland habitats, and bounded by high mesas and deep canyons with chaparral, sage scrub, and grasslands. The natural habitat would be intermixed with compatible agricultural, recreational, and water quality improvement activities, all functioning in concert to maintain and enhance natural ecosystems and processes, water quality, and the full range of native species, and to generally improve the local quality of life and the environment. A complete description of the Tijuana River Valley is contained in Section 1.2.1.

### **Covered Species**

Covered species in the Tijuana River Valley include:

#### **Plants**

Orcutt's bird's-beak  
San Diego barrel cactus  
Shaw's agave  
Wart-stemmed ceanothus

#### **Animals**

California gnatcatcher  
Cooper's hawk  
Least Bell's vireo  
Northern harrier

### **Major Issues**

The major issues that require consideration for management in the Tijuana River Valley, based on the existing conditions as described in Section 1.2 above, are the following, in order of priority:

1. Intense land uses and activities adjacent to and in covered species habitat.
2. Water quality, including sewage, agriculture and urban runoff, and erosion and sedimentation.
3. Dumping, litter, and vandalism.
4. Non-sustainable agriculture and associated activities such as chemical applications and storage.
5. Exotic (non-native), invasive plants and animals.
6. Illegal immigration and border patrol activities.
7. Enhancement and restoration needs.
8. Mining and excavation activities.
9. Flood control.
10. Utility, facility and road repair, construction, and maintenance activities.

### **Overall Management Policies and Directives for the Tijuana River Valley**

The following general management directives apply to the Tijuana River Valley area; relevant long-range policy documents have been reviewed and are incorporated by reference.

## Tijuana River Valley Plan and Local Coastal Program

The adopted community plan (1979) covering this area includes objectives and policy proposals for the park and estuary, agriculture, flood control, and in the Local Coastal Program that are generally consistent with MSCP management goals and objectives. In addition, a plan amendment in 1990 recognized the National Estuarine Sanctuary (Research Reserve) and the County's Tijuana River Regional Park.

## Tijuana River National Estuarine Sanctuary Management Plan

The Tijuana River National Research Reserve is managed according to the Tijuana River NES Management Plan, which ensures that all activities and uses within the reserve contribute to preservation, enhancement, research, and interpretation of the natural resources. It established the State Department of Parks and Recreation as the lead in day-to-day operations, and the Tijuana River National Estuarine Research Reserve Management Authority (a multi-jurisdictional, multi-agency, and citizens board) as the policymaker. The Action Plan in Section 3 of the NES Management Plan (pp. 39-88) contains policies and actions for management of the reserve.

## A Framework Management for the Tijuana River Valley

The framework management document contains the conceptual framework for design and management of the County Park and Recreation Department's Regional Park in the Tijuana River Valley. Management recommendations are found in the Management Issues and Opportunities Section (pp. 50-53), and Framework Management Section (pp. 54-62.) Specific design options offer additional recommendations on pp. 66-73.

## Other General Policies

### Priority 1:

1. Contain active recreational uses planned for the valley in areas determined appropriate for such activities by the County's Regional Park plan. Avoid locating active recreational uses within core habitat or in areas containing covered species. Do not use invasive non-native species to landscape recreational or other areas of the Regional Park. Restrict lighting at night of recreational areas within the Tijuana River Valley area, or if this is infeasible due to vandalism, then shield natural habitat areas from lighting.
2. Prohibit off-road vehicle activity in the valley and on the mesas in order to avoid further destruction of sensitive habitats and to reduce the effects of noise, dust and sedimentation on sensitive species, wetlands, and adjacent residents.
3. Require lessees to properly, and in a timely manner, dispose of all litter located on each leasehold, whether self-generated or not, unless other arrangements with the County or other public landowners have been made.

4. Prevent dumping of construction debris, trash and other materials and actively enforce with a joint City/County/other agencies enforcement program. Institute the program in concert with local users of the valley reporting in a “Neighborhood Watch” type program.
5. Restrict sand mining on the valley floor to removal in the existing pilot channel if determined necessary for flood control, and in the future for potential water treatment ponding systems in the far eastern portion of the valley if they do not interfere with sensitive species habitat.
6. Flood control in the Tijuana River Valley is limited to existing agreements with resources agencies that allow clearing or sand removal within existing low-flow or pilot channel(s), and any flood control projects resulting from the 1994 BSI Consultants “Tijuana River Valley Flood Control and Infrastructure Study.” Any flood control facility must be consistent with City, state, and FEMA regulations and be designed and constructed to maintain riparian and wetland ecosystems within the channel and the valley.
7. Organize clean up crews for the maintenance of equestrian trails with the lead taken by the County Parks and Recreation Department, in conjunction with horse rental stables and local equestrians and clubs.
8. Remove invasive non-native plants pursuant to general management directive.

**Specific Management Directives for the Tijuana River Valley - (Figure 11-Priority 1 only)**

River Corridor

Priority 1:

1. Ensure that adequate amounts of appropriate habitats are maintained for covered species (e.g., the Northern harrier and Mountain plover) dependent on the valley’s habitat types including grasslands and agricultural fields.

Priority 2:

1. Retain existing berms in the floodplain only where it has been determined that they do not exacerbate flood velocities or levels, or increase flood-related management problems for the estuarine reserve, the MHPA or uses located in the river corridor. Remove all other berms in the floodplain over the long term in order to restore the natural floodplain and ecosystem processes consistent with health and safety considerations for the residents of that area.



2. Pursuant to the County's Framework Management Plan, evaluate existing agricultural areas for their impacts to flooding, natural ecological processes (e.g., sedimentation, water table levels, water quality), sensitive species and habitats. Recommend to either retain the site as it is, to modify the location or the type of agriculture, or to eliminate the use from an area. Identify timing of any change or elimination of uses and any future restoration, if needed. Where agriculture remains in the valley, pursuant to leases approved by decision makers, consider sustainable and organic agriculture over traditional forms of farming as being less harmful to the health of the overall ecosystem.
3. Restore areas no longer farmed in the valley floor to riparian and grasslands habitats or allow to naturally regenerate over time to widen the river corridor. Establish the ultimate width of the riparian corridor based generally on the County Parks Department's Framework Management for the Tijuana River Valley and as further determined by the MSCP habitat management technical committee in conjunction with the County. Restore areas outside of the riparian/river corridor to native grasslands wherever possible, as historic evidence shows that the majority of the valley floor was grasslands. Actively manage for grasslands by mowing or other methods.
4. In the future, assess the riparian areas for management needs. Allow the riparian and wetland habitats in the valley to naturally regenerate, except where active restoration has been specified or to remove exotic invasive species. Proposed management changes may offer research opportunities for the future.
5. Establish, widen and/or enhance per the County's Framework Management Plan continuous riparian (and possibly upland) wildlife connections from the river corridor to the mesas and canyon areas. The most suitable locations are where the canyons drain into and through the valley, such as the Silva drain area, Smuggler's Gulch, Goat Canyon, and also along the divisions between agricultural fields across from the mesas. Establish native plant cover up to the road wherever possible. Wildlife crossings of Monument Road will be at grade, since vehicle traffic is expected to remain minimal.
6. Residences and other structures in the floodplain should be removed over the long term where recommended by the 1994 BSI "Tijuana River Valley Flood Control and Infrastructure Study." Restore the areas to native habitat or place in agricultural lease or recreation, if determined appropriate by the MSCP habitat management technical committee in conjunction with County Parks and Recreation Department.

## Mesa Areas

### Priority 2:

1. Spooner's Mesa currently contains agriculture on the mesa top. The center of the area presents long-term opportunities for limited development. If it is developed with active uses, landscape developed areas adjacent to the MHPA with local native species only. Restore the disturbed edges of Spooner's Mesa to the appropriate native habitats (maritime succulent scrub, coastal sage, grasslands, some chaparral). Restoration should be determined by a biologist familiar with the local habitats and consideration should be given to providing native grasslands on large portions of the mesa top.
2. Restore disturbed areas on the Border Highlands area to the east of Spooner's Mesa to coastal sage, maritime succulent scrub, possibly some grasslands and/or chaparral. Restoration opportunities should be determined by a biologist familiar with the habitats in this area. The border patrol should be involved in exploring limiting vehicle access to well-defined roads through the area.
3. In the long term, when or if the residences become publicly owned, evaluate the houses in the mesa areas (primarily along Border Highlands) for removal. If removed, restore the properties to native habitats and remove exotic species. Consider the use of one or more of the existing residences for regional park management offices or other compatible uses in this area.
4. Over the long term, restore areas of the mesas that have been mined and excavated. Restoration should include reconfiguration to the natural landform, with the surrounding natural areas as reference. Restoration of these areas may present research opportunities if not already required as part of existing CUPs.

## Northern edge of valley

### Priority 1:

1. The MHPA lands adjacent to the residential areas on the northern side of the valley provide a transition to the more sensitive central portions of the valley from lighting, urban runoff, noise and other potential disturbance. Place naturalized detention basins where urban runoff drains into the MHPA. Locate fencing or alternative barriers along the northern edge to control access and pet predation of sensitive species.

### Priority 2:

1. Consider areas along the northern edge of the floodplain which are not in current agriculture use for coastal sage scrub and native grassland restoration, consistent with historic evidence.

### 1.5.6 Specific Management Policies and Directives for the Eastern Area

East Elliott and Mission Trails Regional Park

#### Background

##### Goals and Objectives

The optimum condition for the East Elliott and Mission Trails Regional Park would be a mosaic of native habitats and compatible recreational activities, with restoration and transplantation of existing populations of endangered, threatened, and/or sensitive species where necessary. A complete description of the Eastern area is contained in **Section 1.2.2**.

##### Covered Species

Covered Species in the Eastern Area include:

##### Plants

Encinitas baccharis  
Orcutt's brodiaea  
Palmer's ericameria  
San Diego ambrosia  
San Diego barrel cactus  
San Diego goldenstar  
San Diego thornmint  
Slender-pod jewelflower  
Variegated dudleya  
Willow monardella

##### Animals

Burrowing owl  
California gnatcatcher  
California rofous-crowned sparrow  
Cooper's hawk  
Least Bell's vereco  
Mule deer  
Orange-throated whiptail  
San Diego horned lizard  
Tricolored blackbird  
Western bluebird

#### Major Issues

The major issues that will require consideration for management in the Mission Trails/East Elliott area, in order of priority, are:

1. Intense land uses and activities adjacent to and in covered species habitat and linkages.
2. Potential associated impacts related to siting a future landfill in East Elliott.
3. Erosion, urban runoff and overuse of recreational areas adjacent to sensitive drainage areas.
4. Off-road vehicle activity.
5. Exotic (non-native), invasive plants and animals.
6. Encroachment from existing development.
7. Utility, facility and road repair, construction, and maintenance activities.

## **Overall Management Policies and Directives for the Eastern Area**

The following general management directives apply to the eastern area; relevant long-range policy documents have been reviewed and are incorporated by reference.

### **Mission Trails Regional Park Master Plan**

The Mission Trails Regional Park Master Plan identifies all existing and future uses as envisioned by park planners when the master plan was adopted in 1985. Since that time, many uses anticipated in the plan have been built while others remain undeveloped. Areas within and surrounding the park have since taken on more significance as a core area for the region's sensitive biological resources. Some uses originally anticipated in the master plan have been evaluated for compatibility with the MSCP and, for the most part, the passive recreational uses envisioned by the park plan are considered compatible. Where future park uses were considered to be potentially incompatible with the MHPA, alternative locations have been identified to accommodate those uses in less sensitive areas, or the MHPA has been redesigned so that those uses occur outside the MHPA boundaries. The large developed group camping site which was envisioned in the center of the park would be deleted due to its possible negative effects. Where potential inconsistencies between the Mission Trails Regional Park Master Plan and the MSCP occur, resolution will be made by the existing park decision-making bodies after consultation with MSCP planners.

Chapters IV-IX of the master plan contain specific park implementation mitigation measures which were identified in the environmental impact report prepared for the park plan. A comprehensive Natural Resource Management Plan is anticipated to be developed by the City's Park and Recreation Department which will provide further recommendations and guidelines to successfully preserve and protect the park's natural resources while providing for recreational use and master plan implementation. Development of the Mission Trails Regional Park Natural Resource Management Plan will include consultation with MSCP planners to ensure compatibility of the Plan's overall goal, policies, and programs with those of the MSCP.

### **Elliott Community Plan**

The Elliott Community Plan was adopted in 1971 and briefly describes the open space system of the community as envisioned in 1971. The western portion of the community has been developed under the Master Planned Community of Tierrasanta. Also since the original adoption of the plan and subsequent to site-specific biological surveys in the area, the East Elliott portion of the Elliott Community Plan has taken on increased importance in the region due to the presence of significant biological resources.



## **Specific Management Directives for the Eastern Area (Figure 12 - Priority 1 only)**

### **Mission Trails Regional Park**

#### Priority 1:

A Natural Resource Management Plan (NRMP) will be prepared for the park to preserve and protect natural resources while encouraging public use and implementation of the Master Development Plan. Coordinate the preparation of the NRMP with MSCP planners.

1. Maintain and clearly demarcate trails around the visitors center and other areas of high public use to minimize habitat destruction.
2. Limit future equestrian trails to specified trails which minimize trail edge disturbances and are no greater than 25 percent gradient.
3. Seasonally restrict, if necessary, areas along the San Diego River, including riparian restoration areas (except along established trails) to prevent disturbance of breeding areas.
4. As envisioned by the Master Development Plan, revegetate areas with erosion or denuded slopes.
5. Incorporate adequate setbacks into future plans to develop an equestrian center near the San Diego River to minimize impacts associated with cowbird parasitism. Establish a cowbird trapping program to minimize effects on the least Bell's vireo and other songbirds.
6. Minimize lighting for the campground and collect garbage frequently to reduce nuisance wildlife (raccoons, opossums, skunks).
7. Establish signs to direct access and provide educational information at the periphery of sensitive resource areas and at points of access. Post signs to prohibit campfires, pets, firearms and camping (except where allowed). Also post road signs to identify wildlife corridors to help reduce road kills.

#### Priority 2:

1. Reclaim active and abandoned mineral extraction areas as required by the State's Surface Mining and Reclamation Act of 1975.

### **East Elliott**

#### Priority 1:

Protect the remaining populations of San Diego ambrosia in the private property area immediately to the east of the Kumeyaay Lake campground. Explore methods to protect and enhance the San Diego ambrosia population in the area such as transplanting to more remote areas, or the use of split rail fencing and signage.

2. If the eastern area develops with urban uses, implement programs to educate future adjacent landowners pursuant to the general adjacency management guidelines in **Section 1.5.2**.

### **1.5.7 Specific Management Policies and Directives for Urban Habitat Lands**

#### **Background**

##### **Goals and Objectives**

The optimum future condition for the urban habitat lands scattered throughout the City of San Diego is a system of canyons that provide habitat for native species remaining in urban areas, “stepping stones” for migrating birds and those establishing new territories, and environmental educational opportunities for urban dwellers of all ages. The system of urban habitat canyons and natural open space throughout the City provide important areas for people to enjoy and learn about the natural world and local environment. These areas also afford visual enjoyment and psychological relief from urbanization, while supporting habitat for the maintenance of both common and rare species. This habitat, surrounded by development and modified through time, presents unique opportunities for research into fragmentation, edge effects, and urban wildlife ecology. A more complete description of these lands is provided in **Section 1.2.3**.

#### **Covered Species**

Covered species found in the urban habitat lands include:

##### **Plants**

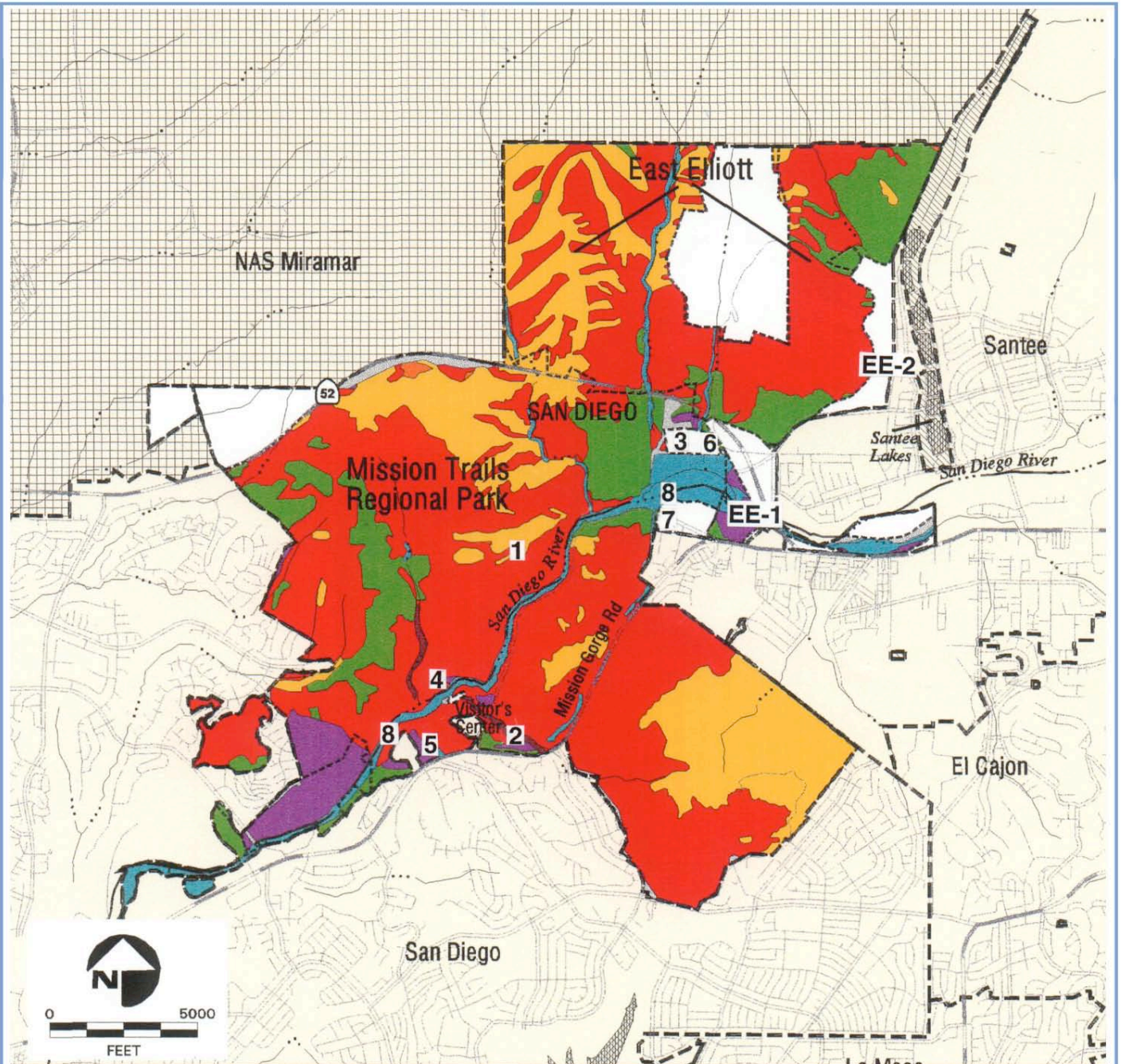
Orcut’s brodiaea  
San Diego barrel cactus  
San Diego button-celery  
San Diego goldenstar  
Short-leaved dudleya  
Snake cholla  
Wart-stemmed ceanothus  
Willow monardella

##### **Animals**

Belding’s savannah sparrow  
California gnatcatcher  
California least tern  
Coastal cactus wren  
Least Bell’s vereo  
Light-footed clapper rail  
Mule deer  
Orange-throated whiptail  
Western snowy plover

#### **Major Issues:**

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



### Vegetation Communities

	Coastal Sage Scrub		Coniferous Forest
	Chaparral		Beach/Foredunes
	Coastal Sage Scrub/Chaparral		Eucalyptus Woodland
	Grassland		Disturbed Habitat
	Riparian/Wetlands		Shallow Bay
	Oak Woodland		Developed
			Agriculture

Number indicates reference in text.

### Base Map Features

	Subarea Boundary		MSCP Boundary
	MHPA Boundary		U.S. - Mexico Border
	Water District		Freeway
	Subarea		Major Road
	Military Lands		Minor Road
			Major Stream
			Minor Stream
			Lake/Lagoon



**Preserve Management: Specific Management Recommendations, Priority 1**  
**City of San Diego MHPA - Eastern Area**

**MSCP Subarea Plan**

**12**

**FIGURE**

## **Overall Management Policies and Directives**

Where the MHPA's urban habitats are part of a natural resource park, the City Park and Recreation Department has prepared or is preparing a Natural Resource Management Plan for adoption by City Council to govern management of those lands. In addition, some public open space lands are managed pursuant to Landscape Maintenance Districts or conditions of permit approval. All other urban lands included within the MHPA should be managed, to the extent possible, according to the general management policies and directives. If in the future special management needs or issues for specific areas arise, these should be resolved by the MHPA (preserve) managers according to the adaptive management strategy, and through coordination with the MSCP habitat management technical committee. All management actions resolved in this manner should be documented, and all follow up actions, including monitoring, should also be documented in order to determine trends, and gain knowledge and feedback useful for continued management of these lands. The following Natural Resource Management Plans have been completed for various urban habitat lands: Marian Bear Memorial Park Natural Resource Management Plan, and Mission Bay Park Natural Resource Management Plan. First San Diego River Improvement Project, and Los Peñasquitos Canyon Preserve Natural Resource Management Plan are currently under development.

### **1.5.8 Specific Management Policies and Directives for the Northern Area**

Including the North City Future Urbanizing Area (NCFUA), Carmel Valley, Rancho Penasquitos, Beeler Canyon, Scripps Ranch, Los Peñasquitos Canyon and Lagoon, Torrey Pines State Park, Sorrento Hills, and portions of the University and Mira Mesa communities.

#### **Background**

##### **Goals and Objectives**

The MHPA in the northern area consists primarily of regional wildlife corridors providing linkages to the core areas of Del Mar Mesa, Los Peñasquitos Canyon

Preserve, Los Penasquitos Lagoon, Torrey Pines State Park, the proposed San Dieguito River Valley Regional Park and the Black Mountain area. These linkages and core areas provide an important network of viable native habitats and plant communities, support the full range of native species, and provide functional wildlife connections over the long term. A complete description is provided in Section 1.2.4.



## **Covered Species**

Covered species in the northern area include:

### **Plants**

Del Mar manzanita  
Encinictas baccharis  
Orcutt's brodiaea  
San Diego barrel cactus  
San Diego button-celery  
San Diego goldenstar  
San Diego mesa mint  
San Diego thorn-mint  
Shaw's agave  
Short-leaved dudleya  
Torrey pine  
Variegated dudleya  
Wart-stemmed ceanothus  
Willow monardella

### **Animals**

Belding's savannah sparrow  
Burrowing owl  
California brown pelican  
California gnatcatcher  
California least tern  
California rofous-crowned sparrow  
Canada goose  
Coastal cactus wren  
Cooper's hawk  
Golden eagle  
Mountain lion  
Mule deer  
Northern harrier  
Orange-throated whiptail  
Riverside fairy shrimp  
San Diego horned lizard  
Western snowy plover  
White-faced ibis

## **Major Issues**

The major issues for management in the northern area based on existing conditions as described in **Section 1.2**, are the following, in order of priority:

1. Intense land uses and activities adjacent to and in covered species habitat and linkages.
2. Itinerant living quarters.
3. Enhancement and restoration needs.
4. Exotic (non-native), invasive plants and animals.
5. Water drainage issues, including water quality, urban runoff, erosion, sedimentation, and flood control.
6. Utility, facility and road repair, construction, and maintenance activities.

## **Overall Management Policies and Directives**

The following general management directives apply to the northern area as a whole; long-range policy documents relevant to the area have been reviewed and are incorporated by reference.

### *The North City Future Urbanizing Area (NCFUA) Framework Plan*

The NCFUA Framework Plan designates an open space system known as the environmental tier that was adopted as a General Plan amendment on October 1, 1992, and approved in the Coastal Zone on November 25, 1993. It is similar in both intent and area to the MHPA boundary for that area. The framework plan document contains implementing principles applicable to the environmental tier that have been incorporated into this plan. In particular, **Sections 5.4** and **5.5** of the framework plan address management concerns.

### *San Dieguito River Park Concept Plan*

The adopted concept plan for the San Dieguito River Park contains both general and specific policies, design considerations, and park proposals that should be considered in conjunction with the Framework Management Plan. In the northern area, the Park Concept Plan encompasses the San Dieguito River Valley Lagoon Restoration area and several tributary canyons such as Gonzales Canyon, La Zanja Canyon, and the La Jolla Valley/ Lusardi Creek area. Management of the lagoon and river area will be performed according to the concept plan and any management plan specifically prepared for Southern California Edison's mitigation area and the overall lagoon enhancement project. It is not anticipated that conflicts will occur with the MSCP implementation due to the sensitivity of the concept plan to the natural habitats and character of the entire river valley.

### *Torrey Pines State Park and Los Peñasquitos Lagoon*

Torrey Pines State Park and Los Peñasquitos Lagoon are both managed by state park rangers and ecologists according to their general plans and management plans.

### *Mira Mesa Community Plan*

This plan contains open space and sensitive resource policies for protection of open space and habitat areas.

### *Torrey Pines Community Plan*

The Torrey Pines Community Plan contains policies for protection, restoration, and management of open space and sensitive areas.

### *Los Peñasquitos Canyon Preserve Master Plan, and Management Plan*

Los Peñasquitos Canyon Preserve will be managed according to its master plan and the Natural Resource Management Plan currently under preparation by the City Park and Recreation Department. The master plan contains some general policies and guidelines on access, trails, usage, and sensitive species. Specific management guidelines for natural, cultural and historical resources for the Los Peñasquitos Canyon Preserve will be contained in the Preserve's Natural Resource Management Plan.

### **Specific Management Directives for the Northern Area (Figure 13 - Priority 1 only)**

The following policies and directives for the northern area are described in the following text, generally from north to south and east to west.

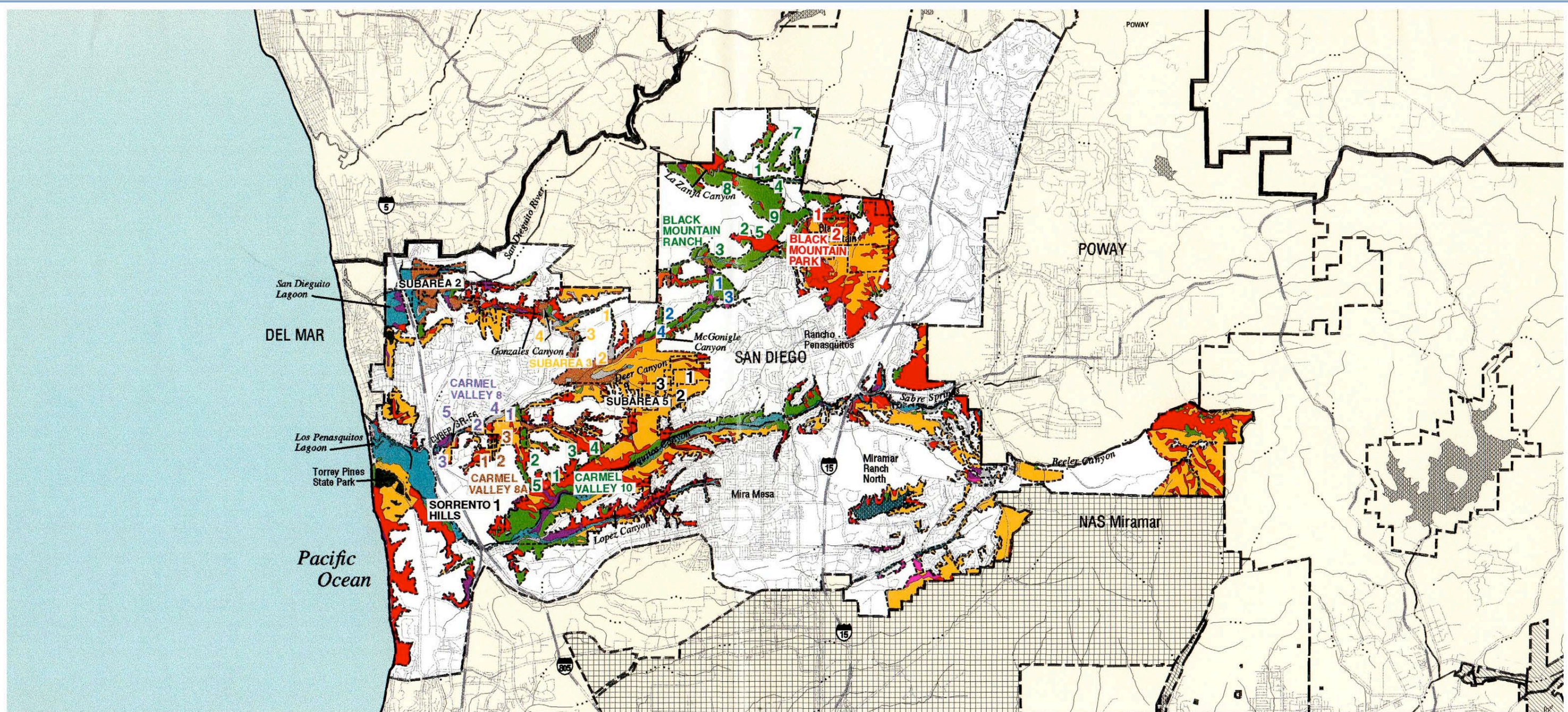
North City Future Urbanizing Area:

#### Black Mountain Ranch/NCFUA Subarea 1

##### Priority 1:

1. As part of the Black Mountain Ranch project, the La Jolla Valley (Lusardi Creek) area will be restored into a fully-functional native riparian ecosystem, and maintained at a minimum 400-foot-width along its entire length through the golf course. Limit access to this important regional wildlife corridor to clearly defined and crossings of the corridor (for golfers and carts). These crossings will need monitoring for litter and other disturbances to the natural habitat.
2. Where golf courses lie adjacent to open space, care will be taken to prevent public observers of golf tournaments from intruding into the MHPA and sensitive habitat areas. As part of the Black Mountain Ranch project, golf course areas will be separated from sensitive habitat with native vegetation discouraging to human access (e.g., brambles, cactus, yuccas) as shown on the approved landscape concept plan.
3. As part of the Black Mountain Ranch project, access into the coastal sage scrub area in the south central area and the corridor and drainage area in the southwestern corner of Black Mountain Ranch bounded by residential and golf course uses will be limited with fencing or natural barriers, and signage to direct local residents to appropriate locations and approved trails and to prevent public overflow from golf course tournaments.
3. Provide periodic oversight of the golf course best management practices to control chemical overflows and urban runoff into the natural open space system.
4. Provide fencing and/or barrier plantings along the edge of the middle school site in the south to deter unlimited access to this regional wildlife corridor. Informational signage, and environmental education programs including monitored restoration projects involving the students should be implemented to heighten awareness of the MHPA's goals, purpose, and needs in this area.
5. Monitor areas with a previous history of invasive species, such as artichoke thistles, tamarisk, and giant reed for re-invasion, and remove as soon as possible.
6. In Phase 2 of the Black Mountain Ranch project, provide fencing and/or barrier plantings between new residential areas and the MHPA to direct public access and restrict pet access to the MHPA.





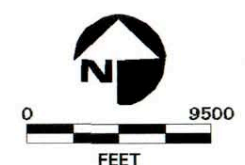
### Vegetation Communities

<span style="color: red;">■</span> Coastal Sage Scrub	<span style="color: darkred;">■</span> Oak Woodland	<span style="color: gray;">■</span> Developed
<span style="color: orange;">■</span> Chaparral	<span style="color: black;">■</span> Coniferous Forest	<span style="color: brown;">■</span> Agriculture
<span style="color: lightorange;">■</span> Coastal Sage Scrub/Chaparral	<span style="color: pink;">■</span> Beach/Foredunes	
<span style="color: green;">■</span> Grassland	<span style="color: magenta;">■</span> Eucalyptus Woodland	
<span style="color: blue;">■</span> Riparian/Wetlands	<span style="color: purple;">■</span> Disturbed Habitat	
	<span style="color: lightblue;">■</span> Shallow Bay	

Number indicates reference in text.

### Base Map Features

<span style="color: black;">—</span> MSCP Boundary	<span style="color: black;">—</span> Major Stream
<span style="color: black;">- - -</span> U.S. - Mexico Border	<span style="color: black;">- - -</span> Minor Stream
<span style="color: black;">—</span> Freeway	<span style="color: black;">■</span> Lake/Lagoon
<span style="color: black;">—</span> Major Road	
<span style="color: black;">—</span> Minor Road	



Preserve Management: Specific Management Recommendations, Priority 1, City of San Diego MHPA - Northern Area

MSCP Subarea Plan

13

FIGURE



7. Establish trails in the MHPA in number and extent consistent with those approved as part of the Black Mountain Ranch project, and monitor over the long term.
8. The northern fork of La Zanja Canyon that will terminate at proposed Camino Ruiz will be fenced near the road (either at the top or bottom of the fill slope) to direct wildlife movement when the Black Mountain Ranch development is constructed. Maintain the fencing over the long term.

Priority 2:

1. Ultimately restore the floodplain in the northeastern corner of Black Mountain Ranch (as part of Phase 2 of Black Mountain Ranch if feasible) with appropriate local native wetland, riparian scrub and woodland species to enhance its values as habitat and potential wildlife corridor.
2. Restore the 400-foot easement along the utility corridor leading from the north central area of Black Mountain Ranch to coastal sage scrub and grasslands (as part of Phase 2 development if feasible). Evaluate the need for undercrossings with future roads.
3. Maintain the northern fork of La Zanja Canyon free of obstructions and restore degradation to sensitive habitats over the long term.

Black Mountain Park Area

Priority 1:

1. Provide clearly marked access areas and well-demarcated trails and post signage to prevent off-trail access and use. Where sensitive or covered species are present, close trails during the breeding and nesting seasons if necessary.
2. Regularly assess overuse of open space areas in and surrounding the park (as determined by the Park and Recreation Department). Repair trails, and restore off-trail use areas and areas affected by erosion as soon as feasible.

NCFUA Subarea 4

Priority 1:

1. Avoid placing trails along the bottom and in habitat areas of the major north-south wildlife corridor/canyon on Fairbanks Highlands, but clearly marked trails may cross the corridor to access the school and other sites from developed areas. The recommended location for a trail along the canyon is in the area adjacent to the proposed development. Provide appropriate trail signage. Monitoring of this constrained regional corridor is recommended.

2. In McGonigle Canyon, a trail on the north side of the corridor is recommended for bicycles and active use rather than in the bottom of the canyon. A single unpaved trail for pedestrians (and equestrians if needed) can occur inside the canyon. Locate the trail in the least sensitive areas of the canyon. Allowance will be made for a single utilities access road designed to a minimum width and maintained to prevent erosion and sedimentation, where needed in McGonigle Canyon. This road should double as the trail wherever it occurs.
3. Retain the large area of non-native grasslands to the east of the corridor and on both sides of Camino Ruiz as grassland habitat to continue to provide foraging for raptors. This area should not be restored to coastal sage scrub. Enhance or restore disturbed areas with native grassland species. Provide a non-invasive (preferably native) landscape barrier or fencing along the length of Camino Ruiz to protect this area from unlimited access, off-road vehicle use (including bicycles) and other degrading impacts. Signage on the fence and/or barrier is recommended. Clearly demarcate any trails placed through this area, and restore disturbance as soon as feasible.
4. Monitor the edge between development and open space at the boundary between NCFUA Subareas 4 and 5 bordering the Del Mar Mesa open space area. Correct adverse edge conditions (lighting, drainage, etc.), habitat degradation, and encroachments as soon as feasible.

Priority 2:

1. Monitor the major north-south wildlife corridor east of the proposed development area on Fairbanks Highlands for adequate cover for wildlife movement. If the eucalyptus trees die or are removed from this area, replace with riparian and chaparral species. Ensure that the eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.
2. Restore disturbed areas in McGonigle Canyon to the appropriate habitat, to be determined by biologists familiar with the local environment. Other than the minimum necessary utilities access road(s), abandon and restore the remainder of the roads in the canyon. In general, coastal sage scrub should be restored on the south-facing slopes of the canyon, mixed chaparral on the north-facing slopes, and riparian habitat in the bottom of the canyon. Remove the eucalyptus trees in this area over the long term, and replace with native riparian trees such as cottonwoods, sycamores, and possibly coast live oaks.
3. Undertake monitoring of the McGonigle Canyon corridor to ensure that wildlife movement is being facilitated, habitat is regenerating or being restored, and overuse is not occurring. Provide enforcement and reparation where necessary.

4. Retain the wetland and drainage areas east of the McGonigle Canyon corridor in an unchannelized, natural state. Remove non-native invasive species from this area to prevent downstream invasion and habitat degradation.
5. Due to the sensitivity of Deer Canyon, limit access to this area. Maintain fencing and signage between development and the canyon as the area develops. Restore degraded areas and prevent off-trail use.

#### NCFUA Subarea 5

##### Priority 1:

1. Clearly demarcate all trails through the Del Mar Mesa area and provide split rail fencing or barriers and signage along sensitive portions to discourage off-trail use. Trails through this area should use the existing disturbed roads as much as possible. No new trails should be cut through existing habitat. Assess existing dirt and disturbed roads and trails for restoration over the long term.
2. Develop an equestrian use plan for the Del Mar Mesa area that avoids the vernal pool habitat and their associated watershed areas. If possible, the Del Mar Mesa area should be managed as a single unit rather than split into separate entities according to ownership (County, various City departments, easements).
3. Protect sensitive areas of Del Mar Mesa area from impacts from adjacent development. Use signage to inform people of the sensitivity of the vernal pools and the Del Mar Mesa area in general, and restrict off-road vehicle use of the area.

##### Priority 2:

1. Monitor the corridor from Shaw Valley through the bougainvillea golf course development to the Walden Pond area occasionally for usage by wildlife (including mesopredators such as opossums, skunks, and raccoons), as well as feral animals and invasive plant species.

#### NCFUA Subarea 3

##### Priority 1:

1. Establish primary trail connections for equestrian and bicycle uses between Gonzales Canyon and Carmel Valley/McGonigle Canyon through or adjacent to the more active, narrow linkage referred to as “Urban/Natural Amenity” in the framework plan.
2. Limit trails to the north side of the floodplain, adjacent to existing and proposed development in McGonigle Canyon, due to the physical constraints of the canyon for wildlife movement. Native plantings at the edges of the trail are desirable to shield the trail from both the development and the wildlife corridor area.

3. A trail on one side (only) of the north south trending canyon that connects Carmel Valley to Gonzales Canyon adjacent to development is preferred to a trail in the bottom of the canyon so that it does not obstruct animal movement. If a trail is placed inside this canyon, it should be limited to day use by pedestrians.
4. Monitor the coastal sage scrub areas in Gonzales Canyon for degradation and take necessary steps to halt and restore degrading areas. Design detention basins planned or constructed for development projects along Gonzales Canyon as natural basins. Clearly demarcate equestrian trails through this area.

Priority 2:

1. Within the Carmel Creek area, and McGonigle and Deer Canyons, restore disturbed areas to the appropriate native habitat over the long term, with riparian woodland species in the canyon bottoms, coastal sage scrub on south and west facing slopes, and chaparral on north facing slopes.
2. Where feasible, remove eucalyptus trees and other invasive non-native species from the MHPA over the long term, and replace with native riparian tree species.
3. Where McGonigle Canyon narrows due to the existing Rancho Glens Estates development, restoration of riparian trees and shrubs is needed to provide cover in the canyon bottom to facilitate wildlife movement.
4. Restore the Gonzales Canyon area to riparian, coastal sage scrub, and maritime chaparral habitats, as appropriate. The north-south trending canyon that connects Carmel Valley to Gonzales Canyon also needs to be restored to coastal sage scrub and maritime chaparral.
5. While the existing equestrian facilities remain at the western end of Gonzales Canyon, the MHPA (preserve) managers should explore the possibility of voluntary restoration of portions of the floodplain to riparian woodland through these properties to facilitate wildlife movement, flood flows, equestrian and pedestrian trails, and generally improve the visual and habitat quality. Natural detention basins are also necessary in this area to remove the pollutants from the riparian system and floodplain area. In the long term, the floodplain should be restored to natural habitats where feasible.

NCFUA Subarea 2: San Dieguito River Mouth and Lagoon Area

Priority 2:

1. Clear the mouth of Gonzales Canyon between the new and old El Camino Real Roads of obstructions in the floodplain and low-lying areas. New development should occur in the least sensitive portions of this area, and adjacent to other developed areas, considering existing onsite or adjacent habitat, wildlife movement, and water flow.



## Carmel Valley: Carmel Valley Neighborhood 10

### Priority 1:

1. The southern edge of Neighborhood 10 adjacent to Penasquitos Canyon Preserve contains high-value coastal sage scrub and gnatcatcher habitat. Monitor this area for degradation, encroachments, non-native invasive plants, and sensitive brush management. Brush management is to be performed according to the agreements with U.S. Fish and Wildlife, with a biologist on duty, and with reports submitted to the City Development Services Department, and the wildlife agencies, per the negotiated 4(d) take authorization.
2. Monitor the corridor system in Neighborhood 10 for functionality and use by native wildlife species, in addition to species potentially harmful to wildlife. Enhance the corridor's usefulness to wildlife where necessary through restoration, provision of fencing or barriers, or other measures.
3. Provide fencing or barriers along school and park uses and other development adjacent to the MHPA where necessary to direct public access and prevent degradation.
4. Avoid locating trails in the eastern corridor and monitor for degradation. Provide fencing adjacent to the culvert and along the road to direct wildlife movement to the undercrossing in that area.
5. Locate a single trail (pedestrian, bicycle and equestrian trail, combined) in the western corridor. This trail should occur on the existing road through the canyon, and should be the minimum width necessary to accommodate the uses. Where there is currently no road, demarcate the trail alignment clearly and narrow the trail if possible. Monitor use of the southwestern undercrossing and provide fencing at strategic locations if necessary to direct wildlife through the bridge undercrossing.

### Priority 2:

1. Assess the entire corridor system in Neighborhood 10 for restoration opportunities. Ultimately remove all non-native, invasive plants (including eucalyptus and castor bean) and replace with native chaparral and coastal sage scrub species. Riparian and native grassland species, in addition to some coastal sage scrub species are appropriate for the Shaw Valley area, especially at the junction of the east and west corridors, out to the Carmel Valley Restoration and Enhancement Project (CVREP) area.
2. In the long term, redesign or remove the concrete detention basin at the mouth of Shaw Valley into the CVREP area. If a detention/sedimentation basin is determined to be needed for Shaw Valley, it should be designed so that it does not obstruct wildlife movement, be relatively shallow and large, and contain natural banks and bottom, with no riprap, concrete, or

other man-made materials. This basin should be planted with riparian scrub and woodland species, and possibly freshwater marsh species if appropriate. It should be designed so as to not constrain the wildlife corridors from functioning at any time of year.

#### Carmel Valley Neighborhood 8 and CVREP Area

##### Priority 1:

1. The City-owned land at the eastern end of CVREP should be left as undisturbed as possible outside of CVREP and the boundaries of the historic site (structures and fields).
2. Existing development in the Neighborhood 8/CVREP area will remain. Incorporate measures to reduce impacts associated with lighting, noise, or uncontrolled access.
3. Monitor and maintain the sedimentation basin in the CVREP area yearly to prevent sedimentation of the Los Peñasquitos Lagoon.
4. Monitor for off-trail use through the CVREP and Neighborhood 8 area.
5. Implement cowbird trapping throughout the Neighborhood 8 area to prevent and control parasitism of sensitive songbird nests (least Bell's vireo and gnatcatchers).

##### Priority 2:

1. Selectively thin thickets of riparian scrub that are determined to cause impediments to wildlife movement or dangerous increases in flood flows, during the non-breeding/nesting season of sensitive wildlife, once every four to five years.

#### Carmel Valley Neighborhood 8A

##### Priority 1:

1. Redirect human access from vernal pools and dudleya populations through signage and fencing as necessary to delineate and protect the sensitive areas.
2. Develop an equestrian use plan including a trail system so as to avoid as much as possible wetlands and other highly sensitive areas.
3. Monitor this sensitive area for off-road and off-trail use, and take necessary measures to prevent such use, and repair damage (at minimum, closure of areas) as soon as feasible. Also assess for invasive plant species and remove as soon as possible.

Priority 2:

1. Use some of the existing dirt roads for trails, and avoid cutting new trails through habitat areas. Restore/revegetate dirt roads (not used as trails) and other disturbed areas to the appropriate habitat (maritime chaparral, vernal pool, grassland, coastal sage scrub), as determined by biologists.

Sorrento Hills

Priority 1:

1. Determine appropriate access points along the edge of Sorrento Hills adjacent to the MHPA.

Torrey Pines Community

Priority 2:

1. In the long term, remove and regularly control the giant reed, castor bean, pampas grass and other invasive non-natives throughout the Sorrento Valley area and Los Peñasquitos Lagoon.
2. Over the long term, monitor for natural regeneration of coastal sage scrub and chaparral on the slopes adjacent to Sorrento Valley. If regeneration does not occur, restoration of limited disturbed areas may be necessary. If possible, involve the industrial park areas on the mesas above Sorrento Valley in removal of non-native invasive species from landscaped and buffer areas, and keep them informed of adjacency issues to the MHPA.
3. Assess the need for a large detention/sedimentation basin at the mouth of Soledad and Los Peñasquitos Creeks in the Los Peñasquitos Lagoon. The purpose would be to capture sediments, pollutants, non-native invasive plant species, and excessive fresh water flows that might affect the estuarine system.
4. Assess Crest Canyon for the need for protection from overuse. Take necessary measures to protect sensitive species within the canyon, to clearly demarcate trails and control off trail use through this area. Consider the use of signage, fencing or other barriers, both within and at the edges of the canyon.
5. In the long term, if funding becomes available, replace the concrete and riprap channels within the Sorrento Valley area with natural bank and bottom flood channels (of adequate width to contain a 50 to 100-year flood if possible). This includes the channel leading from Los Peasquitos Canyon into the Sorrento Valley. Such channels should be two-tiered, with a deeper low-flow channel area, and a narrow terrace along one bank to allow for wildlife movement.

Plant the banks and bottoms with native riparian and wetland species, and plant the terraces with grassland components. The channel bottoms may need occasional maintenance to prevent obstruction of flood flows. Maintenance should consist of selective thinning of variably aged thickets of riparian vegetation, during the non-breeding/nesting season of sensitive bird species.

6. Within the Crest Canyon area, restore disturbed areas with maritime chaparral and remove all non-native species (including the *Atriplex lentiformis*).

Mira Mesa Community, at the edges of Los Penasquitos Canyon and Lopez Canyon and University City south of Lopez Canyon.

Priority 2:

1. Develop a trail system, including appropriate signage and barriers, to direct/redirect human access into the MHPA. Close unapproved trails and access points and provide barriers or signage where necessary.

Beeler Canyon and Adjacent Areas

Priority 2:

1. Provide educational and awareness programs where existing or proposed residential and industrial uses abut the MHPA pursuant to the general adjacency management guidelines in **Section 1.5.2**.
2. Maintain existing open space areas within the Miramar Ranch North and Sabre Spring communities under existing open space agreements.
3. The area immediately to the north of the boundary of NAS Miramar includes approximately 2,100 acres of the MHPA. This area is predominately characterized by steep terrain and includes existing military/defense uses associated with the General Dynamics facility. Revegetate disturbed areas within the MHPA with the appropriate native seed mix.

### **1.5.9 Specific Management Policies and Directives for Lake Hodges and the San Pasqual Valley**

#### **Background**

##### **Goals and Objectives**

The optimum future condition for the Lake Hodges/San Pasqual Valley area would be a mosaic of native habitats and compatible farming and recreational activities that act to preserve and rejuvenate healthy natural ecosystems and processes, water quality, and the full range of native species. A complete description of this area is provided in **Section 1.2.5**.



## **Covered Species**

Covered species found in the Lake Hodges/San Pasqual Valley area include:

### **Plants**

Encinitas baccharis  
San Diego barrel cactus  
Wart-stemmed ceanothus

### **Animals**

Coastal cactus wren  
California gnatcatcher  
Cooper's hawk  
Ferruginous hawk  
Golden eagle  
Least Bell's vireo  
Orange-throated whiptail  
Mountain lion  
Mule deer  
Rufous-crowned sparrow  
San Diego horned lizard  
Western bluebird  
White-faced ibis

## **Major Issues**

The major issues that require consideration for management in the San Pasqual Valley, based on the existing conditions as described in **Section 1.2**, are the following in order of priority:

1. Intense land uses and activities adjacent to and in covered species habitat and linkages.
2. Non-sustainable agriculture, including dairy and grazing operations, and associated activities such as chemical applications and storage.
3. Water quality, including erosion, sedimentation, and agricultural or urban runoff.
4. Flood control needs for leaseholders, including any potential sand removal activities.
5. Utility, facility and road repair, construction, and maintenance activities.
6. Exotic (non-native), invasive plants and animals.
7. Enhancement and restoration needs.

## **Overall Management Policies and Directives**

The following general management policies and directives apply to the Hodges Reservoir/San Pasqual Valley area as a whole; relevant long-range plans and documents that contain existing policies for the area have been reviewed and are incorporated by reference.

## San Pasqual Valley Plan Policies

The San Pasqual Valley Plan contains general open space policies in the Sensitive Biological Resources and Open Space Element. These policies pertain to biological resources targeted for preservation and provide general objectives for habitat protection, restoration, flood control, and exotic plant and cowbird removal. These policies serve as focal points to help direct management efforts in the valley. These recommendations on the following pages are either taken from the San Pasqual Valley Plan, or have been carefully formulated to not conflict with plan policies. However, where conflicts occur, resolution should be accomplished consistent with the implementing agreement.

## San Dieguito River Park Concept Plan

The San Dieguito River Park Concept Plan contains both general and specific policies, design considerations, park proposals, and additional criteria in Appendices C and D that should be considered in conjunction with the MSCP Framework Management Plan. It is not anticipated that conflicts will occur between the concept plan and MSCP implementation. However, where conflicts occur, resolution should be accomplished consistent with the implementing agreement.

## Other General Policies

### Priority 1:

1. Avoid crossing areas of the Lake Hodges reservoir that are below the high water line or disturbing previously undisturbed areas with proposed and new utility lines. As much as feasible, the lines should follow previously existing easements and rights of way or use the I-15 corridor to cross Lake Hodges and the San Pasqual Valley.
2. Contain active recreational uses in areas determined appropriate for such activities, as determined by the San Dieguito River Park Concept Plan and the City of San Diego.
3. Implement flood control related measures must be consistent with the goals, policies and specific proposals in the San Pasqual Valley Plan.
4. Monitor the MHPA lands within the Lake Hodges and San Pasqual Valley area for itinerant worker camps; remove these pursuant to existing enforcement procedures as soon as possible.

### Priority 2:

1. Organize volunteer recruits from existing horse stables and clubs to clean up horse manure.

## **Specific Management Directives for Lake Hodges and San Pasqual (Figure 14 Priority 1 only)**

West of I-15

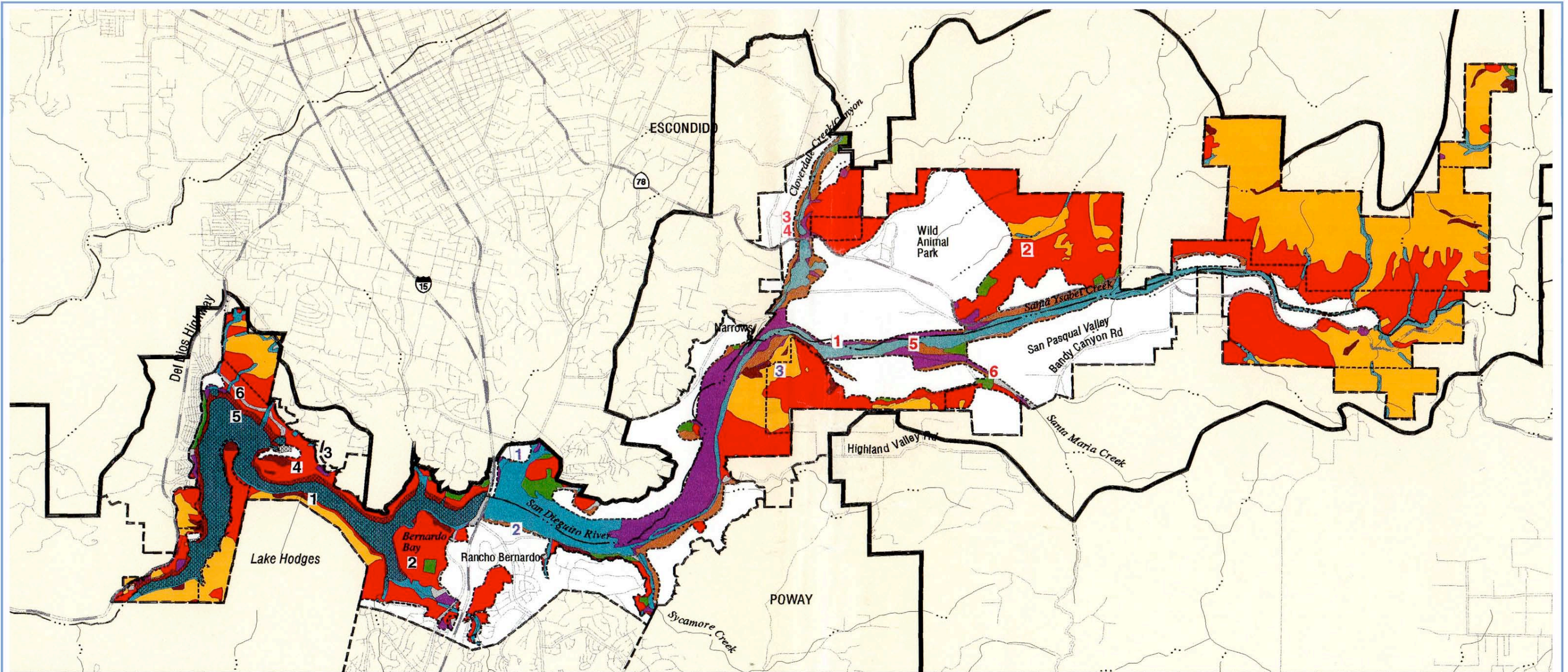
### Priority 1:

1. Due to the topography and sensitivity of the south side of Lake Hodges, restrict public use of the steep slopes. Any trail system developed on the south side of the lake should use the existing utility road and minimize impacts on sensitive resources. Provide signage identifying appropriate trails and take necessary measures to protect habitat and direct access to approved use areas.
2. Direct public access to identified trails through the coastal sage scrub and habitat areas within the Bernardo Bay and Piedras Pintadas area of the Rancho Bernardo community, located west of the Rancho Bernardo Community Park and Water Department facility and north of the Westwood Community. Provide signage in several locations to interpret the importance of this area for the gnatcatcher and other covered species (in addition to the cultural resources interpretation), and to deter off-trail use. Clearly mark all trails and keep well maintained to discourage off-trail use and to control erosion. Trail fencing or other aesthetic barriers should be installed when security and/or protection of sensitive resources is required. A patrol of the area may be necessary to monitor off-trail use and illegal dumping.
3. Manage public use of mitigation lands on the slopes north of the reservoir in a manner consistent with the habitat function and mitigation requirements. Split rail or wire fencing may be constructed adjacent to the roadside and public areas to accommodate wildlife movement.
4. Direct public access to authorized trails with signage and barriers.
5. Regularly monitor and maintain the shores and uplands of Lake Hodges for litter and exotic invasive plant species, and off-trail use including motorized vehicle activity. Remove and dispose of the litter and invasive plants as soon as possible.
6. Utilize the existing fire maintenance road along the north shore of the reservoir as the trail system, and avoid cutting new trails through native habitats, especially between the marina area and I-15.

### Priority 2:

1. Use non-impactive erosion control methods (e.g., mulching with non-invasive plant materials) as necessary to repair areas experiencing erosion. Reseed and restore these areas as soon as feasible.





### Vegetation Communities

- |                              |                     |
|------------------------------|---------------------|
| Coastal Sage Scrub           | Oak Woodland        |
| Chaparral                    | Coniferous Forest   |
| Coastal Sage Scrub/Chaparral | Beach/Foredunes     |
| Grassland                    | Eucalyptus Woodland |
| Riparian/Wetlands            | Disturbed Habitat   |
|                              | Shallow Bay         |

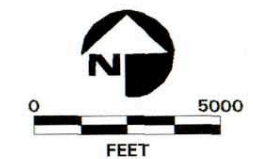
Number indicates reference in text.

- |             |
|-------------|
| Developed   |
| Agriculture |

- |                  |
|------------------|
| Subarea Boundary |
| MHPA Boundary    |
| Water District   |
| Subarea          |
| Military Lands   |

### Base Map Features

- |                      |              |
|----------------------|--------------|
| MSCP Boundary        | Major Stream |
| U.S. - Mexico Border | Minor Stream |
| Freeway              | Lake/Lagoon  |
| Major Road           |              |
| Minor Road           |              |



**Preserve Management: Specific Management Recommendations, Priority 1, City of San Diego MHPA Hodges Cornerstone Lands and San Pasqual Valley**

MSCP Subarea Plan

**14**

FIGURE



2. Over the long term, replace non-native trees and shrubbery along the access road leading from Del Dios to the marina on the north side of Lake Hodges with native vegetation, including coastal sage scrub, native grasslands, and riparian and oak woodlands, in order to provide habitat and encourage wildlife movement between the slopes north of the road and the reservoir.

East of I-15 to Narrows

Priority 1:

1. Due to the sensitivity of the wetlands and presence of least Bell's vireos on the north side of the reservoir and adjacent to I-15, install fencing or other aesthetic barriers at the MHPA boundary if development of this site occurs in the future. Trails should occur on the open space side of the fence/barrier within an adequately sized wetland buffer area (100-200 feet). Provide regular maintenance of this site for development impacts, litter and debris.
2. If the Pinery Tree Farm lease area redevelops on the south side of the floodplain near I-15, install chain link or equivalent type fencing along the development side of an adequate wetland buffer (100-200 feet). This will protect the least Bell's vireo and other sensitive species from potential impacts from the Pinery lease, preserve and protect the existing riparian, wetland, and native vegetation, and help prevent invasion by non-native species. Mounding may be used to help accomplish the wetland buffer objectives. Use only native species for landscaping or revegetation within this area, and remove existing invasive non-native species prior to fencing. Provide regular maintenance of this site for development impacts, litter, and debris.
3. Retain the large expanse of native habitats on the slopes southeast of the Narrows area in an undisturbed condition. If development occurs on the property, place fencing or other aesthetic barriers along the MHPA boundaries to direct access.

Priority 2:

1. On the south side of Highland Valley Road adjacent to the water reclamation plant, protect the hill covered with coastal sage scrub from further encroachment.
2. The area referred to as the "truck scales," on the northwest side of Highland Valley Road where the road bends eastward, is an area that the MHPA boundary splits. This area is part of a mitigation settlement with U.S. Environmental Protection Agency to execute removal of fill in the floodplain and to remove exotic plants. The banks will be stabilized with native riparian scrub. Plan and monitor the portion of the site outside the MHPA boundary and mitigation area to minimize disturbance (including lights and noise) to the riparian corridor or to the coastal sage scrub

covered slopes. Assess this area for the need to remove exotic invasive species that may threaten native habitat, and perform timely removal.

3. Demarcate the boundaries between agricultural lands and the hill east of the winery to reduce disturbance.
4. The 100-acre area on the north side of the floodplain just east of Mule Hill identified as the squash farming lease, should be considered for phased restoration to coastal sage scrub in the upland portions. This will provide critical upland habitat adjacent to the floodplain and riparian areas as well as establish a wildlife connection between the riparian habitat and coastal sage scrub habitat to the north in Escondido. The location, amount (acreage) and timing of restoration will be evaluated and may identify opportunities to restore bottomland portions of this lease to grassland and riparian habitat depending on further biological assessment. Restoration could occur in phases moving from west to east, through mitigation, volunteer activities, and/or lease negotiations. However, acquisition of privately owned coastal sage scrub habitat elsewhere in the valley should be of a higher priority for use of environmental mitigation funds.
5. In order to strengthen the wildlife connection along Sycamore Creek to the Blue Sky Ranch, remove non-native trees and shrubs and replace with native riparian species. In the long term, the flood channel should be modified to improve the corridor width and provide a more natural channel bank with a shallow slope ratio and to provide flood control for agricultural uses to the east.

Narrows to eastern end of Valley

Priority 1:

1. The boundaries of the MHPA and the agricultural or other leases must be clearly defined for the involved City departments (e.g., Water Department, Real Estate Assets) by documentation in the leases and demarcation (stakes or other methods) in the field as needed. Hold lessees responsible for encroachments/impacts or disturbance to MHPA lands through their contracts with the City. Periodic monitoring and enforcement of compliance must be ensured by the appropriate department.
2. Protection of coastal sage scrub and other upland habitats from disturbance throughout this portion of the valley (e.g., Wild Animal Park area, other slopes on both the north and south sides) will require periodic monitoring to ensure no disturbance is occurring. If disturbance occurs, consider protective measures.
3. Any proposed equestrian operations should generally occur where those uses already occur or be placed approximately 300-500 feet away from coastal sage scrub or riparian habitats. Cowbird trapping on each leasehold will be necessary and should be included in all new or renewed lease contracts.

4. Fence the Cloverdale Canyon riparian corridor to keep livestock from entering habitat/corridor areas and disturbing the creek or its banks. Because the lease occupies both sides of the creek, allow fenced livestock crossing areas as needed.
5. Preserve the existing wildlife corridor width of approximately 800 feet along the San Dieguito River and Santa Ysabel Creek as a connection between the floodplain and areas with upland habitat to ensure maintenance of the corridor's width through agreements with the Water Department and City lessees. The San Pasqual Valley Plan recommends a minimum 300-500-foot width through Cloverdale Canyon, a tributary to the main riparian corridor in the valley.
6. Establish a riparian corridor and provide fencing along the length of Santa Maria Creek adjacent to the dairy lease to exclude livestock from entering and disturbing habitat areas.

Priority 2:

1. Generally in most areas of the valley floor and tributaries, riparian vegetation will naturally regenerate and active restoration will not be needed except for locations where determined necessary by future MHPA (preserve) managers. Where enhancement is considered, use only local native species.
2. Restore the area of Santa Maria Creek that lies northeast of the intersection of Bandy Canyon Road and Ysabel Creek Road to strengthen the wildlife connection. When/if the uses in this area change, recognize and incorporate both the constraints of the floodplain and the wildlife corridor into any future lease.
3. Where the river corridor and jurisdictional boundary narrows near the eastern end of the valley, provide periodic monitoring to ensure maintenance of a continuous regional wildlife corridor with connections made to offsite open space lands wherever possible. If the land uses in this area south of the river constrain the corridor width, then agreements or negotiations may be necessary to assure adequate width, or other options may need to be considered.
4. In the far eastern portions of the valley, through the tree groves, the riparian connection is extremely narrow. Where the river cuts through the groves, limit efforts to control the natural ecological processes. Maintain the groves without fencing and allow unrestricted wildlife movement through the groves. Preserve the existing riparian corridor along Santa Ysabel Creek for use as a wildlife connection to Pamo Valley and evaluate a widening if there is a change in agricultural use that further constrains the corridor.

#### **1.5.10 Specific Management Policies and Directives for the Other Cornerstone Lands**

The Water Department (WD) currently manages their lands in response to complaints of dumping, illegal camping, vandalism, etc., and responds to correct the problems on an as needed basis. Where land is leased, the lessee is responsible for maintenance/management of the land. The WD also performs some routine maintenance of brush surrounding existing recreational facilities at each of the reservoirs. At present the maintenance program does not include the removal of exotics. The WD expects to continue the existing maintenance program until the lands are “set aside” through their proposed Cornerstone Lands Conservation Bank Agreement. Maintenance and management will then be required to be consistent with the MSCP plan.

The following are normal activities within reservoir watersheds. Each of the Cornerstone Lands has different maintenance requirements which may include all or a portion of the activities listed below:

1. Patrolling for debris and dump sites with removal to landfills or on site disposal/storage.
2. Patrolling for pollution/nuisance type activities and for public protection.
3. Brush management for fire protection of Water Department facilities, private property, road, trail and parking lot maintenance.
4. Water quality sampling and analyses for surface and well water.
5. Maintenance of weather monitoring stations.
6. Access for watershed surveys, management and monitoring.
7. Field reviews for construction plan checks of other agencies and developers on properties adjacent to City property.
8. Maintenance around reservoir keepers' residences, water wells and waste disposal facilities.
9. Maintenance of leach fields servicing water treatment plants, public parks and recreational facilities.
10. Maintenance of public pedestrian access, hiking, and bicycling paths, horse trails, fishing, and hunting as permitted by the City.
11. Maintenance and operation of groundwater recharge, extraction, and conveyance facilities.
12. Maintenance and operation of flood control and surface water conservation facilities.



13. Maintenance and monitoring of siltation and erosion control facilities, water quality control basins, diversion ditches and other facilities.
14. Operation and maintenance of existing water and sewer pipeline and pump station facilities across reservoir properties.
15. Maintenance of utility access roads.
16. Access for land management of easements and leases of Water Department owned properties.
17. Vegetation control immediately around dams for dam safety.

#### **1.5.11 Vernal Pool Management Guidelines**

The City of San Diego has developed a Vernal Pool Management Plan which covers proposed management recommendations for vernal pools on 25 sites throughout the City, including City-owned sites and vernal pool sites within open space easements. The plan describes a coordinated program for management of the vernal pools, lists tasks associated with each pool site, and summarizes the tasks in a table/matrix. Where appropriate refer to specific tasks identified in the Vernal Pool Management Plan.

#### **1.5.12 Fire Management Guidelines**

##### **Background**

Fire management in the City of San Diego primarily focuses on fuel or brush management, and is regulated by the Landscape Ordinance and Landscape Technical Manual, in conjunction with the Fire Department. The typical mesa-canyon topography and fire-adapted native vegetation of the coastal region has led to the common condition of development occurring on mesa tops surrounded by canyon slopes of highly-flammable chaparral and other natural open space. This typical occurrence has justifiably raised public safety concerns which have been addressed by the City's Landscape Ordinance and Landscape Technical Manual. The formation of an open space system to protect biological resources and preserve long-term viability introduces additional issues regarding fire management that need to be addressed in conjunction with public safety factors.

Major issues related to fire management in the MHPA include the following:

1. Fire hazard reduction methods, including brush management, for public safety purposes may impact sensitive species.
2. Fire hazard reduction may involve methods that increase other management concerns (e.g., exotic species invasion, erosion).

3. Native vegetation communities subjected to fire suppression over long periods of time often become woody and senescent, contributing to severe fire hazard for development in and adjacent to the MHPA.
4. Senescent native vegetation no longer supports the diversity of species of areas allowed to rejuvenate through periodic non-catastrophic fire.
5. Catastrophic fires can destroy soil structure, seed banks, root burls and other natural regeneration components, and act to convert native plant communities to non-native landscapes.
6. Fire management needs for particular fire-adopted species such as Del Mar manzanita and Shaw's agave.

#### **1.5.13 Monitoring Plan**

The monitoring component of the management plan is under separate cover, and is incorporated into this document by reference. Its preparation is pursuant to the wildlife agencies requirements. The document contains the monitoring program for the entire MSCP Preserve system, identifying both specific areas within the City of San Diego and recommended categories to target future monitoring locations. The monitoring plan identifies basic monitoring requirements for the various native habitats, covered species, and corridors, and also includes monitoring and reporting requirements, a remediation section and highlights research opportunities.

Biological monitoring will be the joint responsibility of the City and the wildlife agencies for all lands within the City's boundaries. Proper management of the MHPA will require ongoing and detailed analysis of the data collected through monitoring activities. To ensure uniformity in the gathering and treatment of this data, the wildlife agencies will assume primary responsibility for coordinating the monitoring programs, analyzing data, and providing information and technical assistance to the jurisdictions. No additional fees will be charged to landowners for biological monitoring.

#### **1.5.14 Research Opportunities for the Academic and Professional**

The MHPA presents a rich array of research opportunities for the academic and professional communities, primarily in disciplines related to biology, ecology, and natural resources management, but also ranging to environmental design, sociology, and park use and administration. The City of San Diego encourages research within the MHPA in order to gain valuable information unavailable through other means. There are a multitude of unanswered questions posed by the development of a multiple species and habitat system where little literature or previous research exists on the majority of species inhabiting the region. In addition, research on vegetation associations and habitats, natural regeneration, restoration, fragmentation,

edge effects, genetics, viability, predation, wildlife movement, wildlife use of culverts and other undercrossings, and much more, would be useful to provide information on the health and dynamics of an urbanized open space system as well as how to improve conditions. The MSCP Biological Monitoring Plan makes recommendations for further research to supplement the required monitoring program.

Some specific requirements for researchers are needed in order to obtain a mutual benefits for the City, the MSCP program, wildlife agencies and researchers. These include:

1. Coordination with City staff to discuss projects, potential locations, guidelines for access, and oversight responsibility.
2. Application to do research should occur through a letter sent to City staff, with a copy to the MSCP habitat management technical committee. The application should describe the participants, the precise location where the work is to be done, the tasks and methodologies that would take place on preserve lands, the dates and approximate length of time for the research, and any known or expected disturbances. The letter will need to present proof of insurance or indemnify all participants in the research effort to work at their own risk.
2. Applicants must agree to provide the data or the results of the research to City staff, and to the wildlife agencies within a reasonable timeframe after the completion of the project. If working on a grant or similar funding arrangement, a letter from the grantor acknowledging and accepting this arrangement must be submitted.
3. If working in state or federally listed species habitat or wetlands, any necessary permits from the appropriate agencies must be obtained prior to commencement of research, with a copy provided to the City or MSCP management entity.
4. The researchers will be held responsible for any damage or disturbance to native plants, animals, hydrology, or any other aspect of the natural ecosystem, and will need to provide restoration or other reparation if necessary.

## **1.6 PROTECTION OF RESOURCES**

### **1.6.1 Interim Protection**

The City of San Diego currently provides protection to sensitive biological resources through policies and regulations. The Open Space and Conservation Elements of the General Plan and community plans identify, in varying level of detail, important areas to be protected for open space, including for biological purposes.

The City has the following existing regulations which provide protection to sensitive environmental resources: the Resource Protection Ordinance (RPO) and Guidelines; the Sensitive Coastal Resource Overlay Zone (SCR); and the Hillside Review (HR) Ordinance and Guidelines. RPO is designed to protect sensitive biological resources and hillsides through limitation of encroachment into these lands to a maximum of 20 percent of the parcel, plus 15 percent in certain limited circumstances (provision of major public facilities). Development is directed to the least sensitive portions of the site with the remainder of the property left in open space. For the most part, premature clearing and grubbing of habitat is restricted except as exempted under RPO.

Additionally, the City implements the California Environmental Quality Act and Guidelines through the Environmental Quality Ordinance, and requires protection of significant biological resources as mitigation for project impacts.

The City has revised, updated and consolidated existing environmental regulations into new draft Environmentally Sensitive Lands (ESL) regulations. One goal was to create regulations that can better serve as implementing tools for the City's MHPA. Specifically in the September 1995 draft of the ESL:

- RPO, SCR and HR have been combined to be applied citywide.
- Development on private lands in the MHPA will be limited to 25 percent of the parcel, with the remainder left in open space.
- Several open space zones have been created for use in implementing the MHPA and other open space, including OC (open space-conservation); OF (open space-floodplain); and OR (open space-residential). The OR-1-2 Zone would be applied to parcels within the City's MHPA, and would contain the 25 percent development area regulations.

#### **1.6.2 Permanent Protection**

The long-term biological integrity of the MHPA will be ensured as follows:

1. Lands set aside in the MHPA as mitigation for development occurring outside the MHPA and lands acquired for the MHPA with public funds will be protected with open space easements or, at the landowners option, dedicated in fee to the City, or other governmental or non-profit agency which will take over management responsibilities and liability.
2. Public lands (federal, state and local) committed to the MHPA will be protected with open space easements, dedications, zoning, general plan designations or other protective measures to ensure that such lands are managed and preserved consistent with the MSCP and this Subarea Plan.



3. Private development within the MHPA will be regulated through the Environmentally Sensitive Lands (ESL) permit process and any CEQA review required to allow development to occur on the premises. Development will be directed toward the least biologically sensitive portion of the site by the Environmentally Sensitive Lands ordinance. The permit implementing the Environmentally Sensitive Lands regulations will be recorded with the county recorder and will run with the land. The indirect impacts of the development will be addressed in the ESL permit to ensure protection of the sensitive resources remaining on the premises outside of the development area.

### **1.6.3 Mitigation Plan**

Mitigation for sensitive biological resources involves “compensating” for impacts through off-site acquisition, on-site preservation, habitat restoration, or in limited cases, monetary compensation. The mitigation plan for any proposed project must include provisions for protection or preservation and management (including responsibility) of the mitigation areas. Mitigation is one method by which lands within the MHPA are proposed to be acquired.

For impacts occurring outside of the MHPA, compensating mitigation may be required for significant impacts to sensitive habitats. This mitigation would be based on the habitat type, and the location of the mitigation site, as set forth in the City’s biology guidelines. Mitigation occurring within the MHPA would generally occur at a lower ratio due to the critical nature and high biological value of the preserve. Any areas proposed as mitigation areas outside of the MHPA would be required to demonstrate that the area can retain long-term viability, and is part of a large, connected open space system.

For impacts occurring within the MHPA necessary to achieve the allowable 25 percent development area of the proposed underlying OR-1-2 zone, no mitigation would be required for impacts to sensitive upland resources. The remaining 75 percent area outside of the allowable development area would be left undeveloped. If the property owner elects not to dedicate the undeveloped area in fee to the City, a covenant of easement must be recorded against the property which incorporates any conditions applying to the undeveloped area, including limitation on uses and provisions for long-term management. Active habitat management may not occur if the landowner retains fee title, though grading and clearing can be prohibited.

For those projects within the City that received approval prior to the effective date of the City’s Subarea Plan and implementing agreement, and are considered vested under California law, or have been determined by the City and wildlife agencies to have appropriately satisfied mitigation requirements, no additional mitigation will be sought except to the extent required by the federal and state Endangered Species Acts for currently listed species.

#### **1.6.4 Conservation Estimates**

Lands within the City of San Diego MHPA are proposed to be conserved by one of the following five methods: 1) conservation of existing public lands; 2) land use restrictions of property within the MHPA through zoning regulations; 3) open space exactions directed toward building the MHPA imposed on new development outside the MHPA; 4) open space previously set aside on private lands for conservation as part of the development process; 5) public acquisition of private lands.

The City of San Diego's Subarea Plan proposes 90 percent conservation of 56,831 acres within the MHPA for a total of 52,012 acres. Public lands, including Cornerstone Lands, within the City's MHPA total 38,880 acres, of which 94 percent, or 36,697 acres, is expected to be preserved in perpetuity. The total public lands include 5,806 acres owned by federal and state government, and 33,074 owned by the City of San Diego and other local jurisdictions. Negotiated open space on private lands (100 percent conserved) in the City's MHPA totals 5,012 acres. Through future application of the Environmentally Sensitive Lands Ordinance and open space zone, approximately 7,903 acres could be conserved. Acquisition will be required in a number of areas that are critical to MHPA configuration and viability and where development as allowed under the resource regulations would impair or preclude its function. Acquisition could be accomplished with either public funds or from mitigation requirements for private and/or public development impacts outside the MHPA. It is estimated that at a minimum, approximately 2,400 acres of private land would need to be acquired.

It is important to realize that the numbers included above are not additive, since the amount, timing and location of land conservation through regulation, mitigation and public acquisition is not known. The amount, timing and location of conservation by any one method will affect the same factors for the other methods.

For the majority of covered species, it is accepted that conserving habitat within the MHPA at the above conservation goals will not appreciably reduce the likelihood of the survival and recovery of these species in the wild. While this is true for species with wide geographic distributions, species with very limited geographic ranges (narrow endemic species) would require additional conservation measures to assure their long-term survival.

For wetlands, including vernal pools in naturally occurring complexes, and narrow endemic species, inside the MHPA, impacts will be avoided. Outside the MHPA, narrow endemic species will be protected through the following measures, as deemed appropriate: 1) avoidance; 2) management; 3) enhancement; and/or 4) transplantation to areas identified for preservation. Unavoidable impacts associated with reasonable use or essential public facilities would need to be minimized and mitigated. In addition, state and/or federal permits may be required for impacts to wetland habitat. The following is a list of narrow endemic species:

### **Narrow Endemic Species**

Acanthomintha ilicifolia	San Diego thornmint
Agave shawii	Shaw's agave
Ambrosia pumila	San Diego ambrosia
Aphanisma blitoides	Aphanisma
Astragalus tener var titi	Coastal dunes milk vetch
Dudleya blochmaniae ssp. Brevifolia	Short-leaved dudleya
Dudleya variegata	Variegated dudleya
Hemizonia conjugens	Otay tarplant
Navarretia fossalis	Prostrate navarretia
Opuntia parryi var. serpentine	Snake cholla
Orcuttia californica	California Orcutt grass
Pogogyne abramsii	San Diego mesa mint
Pogogyne nudiuscula	Otay Mesa mint

#### **1.6.5 Take Estimates**

Habitat loss or “take” within the MHPA will be avoided or minimized to a maximum of 25 percent on parcels within the MHPA. Take of habitat for covered species outside of the MHPA will not be restricted by the City’s MSCP Subarea Plan except as necessary for narrow endemic species. **Table 2** reflects an estimate of habitat take inside and outside the MHPA. This estimate of take assumes that wetland impacts inside and outside the MHPA will be avoided or mitigated under federal and state regulations to achieve a “no-net-loss of function and value.” This estimate of loss represents a worst-case analysis; actual loss outside the MHPA may be lower due to avoidance of habitat impacts on steep slopes.

### **1.7 MSCP IMPLEMENTATION FUNDING**

The MSCP plan contains estimates for the costs of habitat acquisition, maintenance and monitoring, based on Subarea Plans submitted by the local jurisdictions. Based on new information from the jurisdictions, the targeted number of acres which will need to be acquired is estimated to be 27,000 acres. The regional (local) share of habitat acquisition will be one-half of approximately 13,500 acres. As described above, the City of San Diego’s total acquisition need is estimated to be 2,400 acres, with approximately 1,000 acres of that expected to be provided from project mitigation.

The MSCP plan will also contain a long-term strategy in the form of several options for funding the needed acquisition, maintenance and monitoring. Local funding sources, including a parcel tax/benefit assessment, community facilities district/ “Mello-Roos,” general obligation bonds - Ad Valorem tax and a sales tax, are analyzed in the final MSCP plan. Local funding sources will be voter approved. If public funding sources do not become available, the City will not increase private development contributions beyond what is committed to in the MSCP plan and implementing agreement.

Short-term Funding Needs. The San Diego Dialogue has been exploring methods to finance the local share of program costs for acquisition and maintenance, particularly funding of the short-term need prior to voter approval of long-term regional financing. The San Diego Dialogue is seeking short term financing of \$39 to \$53 million for initial purchase of up to 4,000 acres in the MSCP study area in the first three years of program implementation. This is intended to be matched by a similar expenditure by the federal and state governments, for a total initial purchase of up to 8,000 acres. The City will participate with other jurisdictions and agencies in assisting with the short-term financing need.

Regional Funding Obligation. The City of San Diego, participating with other jurisdictions in the MSCP, will be jointly responsible for acquiring half of the lands required for public acquisition, and for funding management, monitoring and administrative costs of those lands acquired by the jurisdictions respectively. The funding of the local share will be carried out on a regional basis. The City agrees to participate in pursuing regional sources of funding, but this requirement will not preclude the City from initially pursuing alternative funding sources. Lands acquired through mitigation for public and private projects or through land use regulation will not be credited against the acquisition obligations of the parties. The MSCP plan reflects the commitment of the City and other jurisdictions to secure adequate funding to carry out the program, and identifies the funding strategies the jurisdictions intend to pursue. The plan also sets out a time table under which the City and the other participating jurisdictions will begin a process to procure funding within 18 months of federal and state approvals of the first Subarea Plan(s), and will have a funding source(s) in place within an additional 18 months. The wildlife agencies are willing to adjust this schedule if the jurisdictions demonstrate that their good faith efforts require additional time. Within this time frame, the participating jurisdictions will create a structure through which regionally generated funds will be allocated.

The parties recognize that achieving the goal of a regional funding program may be compromised if any of the current participants opt out of the MSCP or fail to complete a Subarea Plan. If such circumstances arise before a source(s) of funds is to be in place, the wildlife agencies and the remaining participants will jointly reassess the feasibility of a regional approach to funding. If the wildlife agencies and the jurisdictions conclude that a regional funding strategy is no longer feasible, the jurisdictions will decide on and implement alternative strategies for funding the local share of the MSCP.

In the event that adequate funding for the MSCP is not provided, the wildlife agencies will assess the impact of the funding deficiency on the scope and validity of the permits. The wildlife agencies and the jurisdictions will meet and confer to develop a strategy to address the funding shortfall, and will undertake all practicable efforts to maintain the level of coverage afforded by the permits issued under the program until the situation can be remedied.



**TABLE 2**  
**ESTIMATED HABITAT LOSS (“TAKE”) ACRES**  
**WITHIN CITY OF SAN DIEGO SUBAREA**

<b>Vegetation Community</b>	<b>Estimated Take Outside MHPA</b>	<b>Estimated Take Inside MHPA</b>	<b>Total</b>
Beach	383	0	383
Saltpan	0	0	0
Southern Foredunes	2	1	3
Southern Coastal Bluff Scrub	10	9	19
Coastal Sage Scrub	5,731	2,234	7,965
Chaparral	3,952	1,228	5,180
Southern Maritime Chaparral	355	129	484
Maritime Succulent Scrub	112	41	453
Coastal Sage/Chaparral	32	23	55
Grassland	6,184	445	6,629
Southern Coastal Salt Marsh	0	0	0
Freshwater Marsh	0	0	0
Riparian Woodland	0	0	0
Riparian Scrub	0	0	0
Oak Woodland	59	33	92
Torrey Pine Forest	5	9	14
Tecate Cypress	0	0	0
Eucalyptus Woodland	453	19	472
Open Water	0	0	0
Disturbed Wetlands	0	0	0
Natural Flood Channel	0	0	0
Shallow Bays	0	0	0
Other Habitat	153	37	190
<b>SUBTOTAL (Habitat)</b>	<b>17,731</b>	<b>4,207</b>	<b>21,938</b>
Disturbed	6,605	316	6,921
Agriculture	7,580	294	7,874
<b>TOTAL</b>	<b>31,916</b>	<b>4,817</b>	<b>36,733</b>

<sup>1</sup> It is assumed that all wetlands would be mitigated to achieve a no-net loss of function and value. Therefore, the City’s MSCP Subarea Plan does not assume any take of wetland habitat. It should also be noted that this estimate reflects a worst-case analysis.

**Species evaluated  
for coverage  
under the MSCP**

## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<b>Plants</b>					
<i>Acanthomintha ilicifolia</i>	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<sup>1</sup> 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.

<i>Agave shawii</i> Shaw's agave none	100% of major populations	No major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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<sup>1</sup> 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 are 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.

<i>Ambrosia pumila</i> 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
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### 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<sup>1</sup> 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 San 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 <sup>3</sup> (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
<i>Aphanisma blitoides</i> 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.

<i>Arctostaphylos glandulosa</i> var. <i>crassifolia</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<i>Astragalus deanei</i> Dean's milk vetch None	Unknown conservation level and therefore not covered by the plan.				NO
<i>Astrogalus tener</i> var. <i>titi</i> 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.

<i>Baccharis vanessae</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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<sup>1</sup> 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.

<i>Berberis nevinii</i> 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
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### 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<sup>1</sup> 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.

<i>Brodiaea filifolia</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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<sup>1</sup> for the species if a population is identified in the future.

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

<i>Brodiaea orcuttii</i> 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
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### 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<sup>2</sup>.

**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 Vicente 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 <sup>3</sup> (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
<i>Calamagrostis densa</i> 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.

<i>Calochortus dunnii</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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<sup>1</sup> 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.

<i>Caulanthus stenocarpus</i> 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
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### 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 <sup>3</sup> (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
<i>Ceanothus cyaneus</i> 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<sup>1</sup> for the species if a population is identified in the future. This is a Group A species in the County's proposed BMO<sup>2</sup>.

**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.

<i>Ceanothus verrucosus</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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 <sup>2</sup> .					
<b>Notes:</b> Additional important populations (30 percent of known populations) are found on military lands (Pt. Loma, Miramar) which are not part of the MSCP.					
<b>Conditions:</b> 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.					
<i>Chorizanthe orcuttiana</i> Orcutt's spineflower	Unknown conservation level and therefore not covered by the plan.				NO
<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i> 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 <sup>3</sup> (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
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### 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.

<i>Cordylanthus orcuttianus</i> 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
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### 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 <sup>3</sup> (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
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> 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<sup>2</sup>.

**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.

<i>Cupressus forbesii</i> Tecate cypress none	98% Tecate cypress forest	2% Tecate cypress forest	Preserve design/landscape level	Monitoring Plan – Habitat Based and Photo Plot	YES
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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.

<i>Dudleya blochmaniae</i> ssp. <i>brevifolia</i> 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
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### 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<sup>1</sup> 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 <sup>3</sup> (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
<i>Dudleya variegata</i> 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<sup>1</sup> 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 are 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.)

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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<i>Ericameria palmeri</i> ssp. <i>palmeri</i> 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<sup>1</sup> 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. <i>parishii</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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.

<i>Erysimum ammophilum</i> 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
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### 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 are now being treated as *Erysimum capitatum*, a common species of wallflower.

<i>Ferocactus viridescens</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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 <sup>2</sup> .					
<b>Notes:</b> 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.					
<b>Conditions:</b> 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.					
<i>Fremontodendron mexicanum</i> Mexican flannel bush PE/CR	Insufficient distribution data and unknown conservation level; therefore, the species is not covered by the plan.				NO
<i>Githopsis diffusa</i> ssp. <i>filicaulis</i> Mission Canyon bluecup none	Unknown conservation level and therefore not covered by the plan.				NO
<i>Hemizonia conjugens</i> 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 <sup>3</sup> (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 <sup>1</sup> for the species.					
<b>Conditions:</b> 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.					
<i>Hemizonia floribunda</i> Tecate tarplant none	Unknown conservation levels and therefore not covered by the plan.				NO
<i>Lepechinia cardiophylla</i> 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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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<sup>2</sup> (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).

<i>Lepechinia ganderi</i> 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
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### 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<sup>1</sup> 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 <sup>3</sup> (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
<i>Lotus nuttallianus</i> Nuttall'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.

<i>Monardella hypoleuca</i> ssp. <i>lanata</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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<sup>1</sup> for this species. This is a Group A species in the County's proposed BMO<sup>2</sup>.

**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.

<i>Monardella linoides</i> ssp. <i>viminea</i> Willow 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
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### 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<sup>2</sup>.

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

<i>Muilla clevelandii</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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 <sup>2</sup> .					
<b>Conditions:</b> Area specific management directives must include monitoring of the transplanted population(s), and specific measures to protect against detrimental edge effects to this species.					
<i>Myosurus minimus</i> ssp. <i>apus</i> Little mousetail none	The MSCP preserve does not include adequate habitat to conserve the species.				NO
<i>Navarretia fossalis</i> 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 <sup>3</sup> (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 <sup>2</sup> .					
<b>Notes:</b> State and federal transportation agencies will need to avoid or adequately mitigate the impacts to this species from the extension of State Route 125. 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.					
<b>Conditions:</b> 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.					
<i>Nolina interrata</i> 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 <sup>3</sup> (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
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### 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)<sup>2</sup>. 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<sup>1</sup> 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.

<i>Opuntia parryi</i> var. <i>serpentina</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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 <sup>1</sup> for this species.					
<b>Notes:</b> Additional important populations are found on military lands (Pt. Loma) which are not part of the MSCP.					
<b>Conditions:</b> 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.					
<i>Orcuttia californica</i> 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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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<sup>1</sup> 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.

<i>Pinus torreyana</i> Torrey pine none	100% of native population	No major populations	Preserve design/landscape level	Monitoring Plan – Habitat Based	YES
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### 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.

<i>Pogogyne abramsii</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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.					
<b>Notes:</b> 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.					
<b>Conditions:</b> Preserve management plan must include measures to: 1) protect against detrimental effects; 2) maintain surrounding habitat for pollinators; and 3) maintain pool watershed areas.					
<i>Pogogyne nudiuscula</i> 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 <sup>3</sup> (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.					
<b>Notes:</b> 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.					
<b>Conditions:</b> Preserve management plan must include measures to: protect against detrimental edge effects; maintain surrounding habitat for pollinators; and maintain pool watershed areas.					
<i>Rosa minutifolia</i> 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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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 Dennerly 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.

## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<i>Santureja chandleri</i> 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<sup>2</sup>.

**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.

<i>Senecio ganderi</i> 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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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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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<sup>2</sup> (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.

<i>Solanum tenuilobatum</i> 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
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### 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<i>Tetracoccus dioicus</i> 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<sup>2</sup> (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

<i>Euphydryas editha quino</i> 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
<i>Euphyes vestries harbisoni</i> 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<i>Lycaena thornei</i> Hermes copper butterfly none	Unknown conservation level and therefore not covered by the plan based on insufficient distribution and life history data.				NO
<i>Mitoura thornei</i> 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.

<i>Panoquina errans</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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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.

<i>Branchinecta sandiegoensis</i> 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
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### 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 <sup>3</sup> (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
<i>Streptocephalus woottonii</i> 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<i>Bufo microscaphus californicus</i> 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<i>Rana aurora draytoni</i> 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.

<i>Clemmys marmorata</i> <i>pallida</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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.					
<b>Conditions:</b> 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.					
<i>Cnemidophorus hyperythrus beldingi</i> 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



## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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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.

<i>Phrynosoma coronatum blainvillei</i> San Diego horned lizard /SSC	60% of potential habitat (132,000± acres) – 64% of coastal sage scrub, 54% of chaparral, 44% of coastal sage/chaparral, 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
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### 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<b>Birds</b>					
<i>Pelecanus occidentalis californicus</i> 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

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
<i>Egretta rufescens</i> 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 in 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.

<i>Plegadis chihi</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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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.

<i>Branta canadensis</i> 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
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### 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 <sup>3</sup> (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
<i>Haliaeetus leucocephalus</i> 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.

<i>Circus cyaneus</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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 <sup>3</sup> (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
<i>Accipiter cooperii</i> 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 chaparral, 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 <sup>3</sup> (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
<i>Buteo swainsoni</i> 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.

<i>Buteo regalis</i> 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
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### 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 <sup>3</sup> (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
<i>Aquila chrysaetos</i> 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 <sup>3</sup> (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
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### 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 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 slopes), 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 <sup>3</sup> (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
<i>Falco peregrinus</i> <i>anatum</i> 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.

<i>Rallus longirostris</i> <i>levipes</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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.					
<b>Notes:</b> 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.					
<b>Conditions:</b> 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.					
<i>Charadrius alexandrinus nivosus</i> 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 <sup>3</sup> (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
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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. 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.

<i>Charadrius montanus</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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.

<i>Numenius americanus</i> 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
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### 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 <sup>3</sup> (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
<i>Sterna elegans</i> 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.

<i>Sterna antillarum</i> <i>browni</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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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.

**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.

<i>Speotyto cunicularia</i> <i>hypugaea</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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 <sup>3</sup> (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
<i>Empidonax traillii</i> <i>extimus</i> 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).

<i>Camphylorhynchus</i> <i>brunneicapillus couesi</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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.

<i>Polioptila californica</i> <i>californica</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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.

<i>Sialia mexicana</i> 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
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### 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 <sup>3</sup> (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
<i>Vireo bellii pusillus</i> 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 <sup>3</sup> (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
<i>Aimophila ruficeps</i> <i>canescens</i> 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.

<i>Passerculus</i> <i>sandwichensis beldingi</i> 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
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## SPECIES EVALUATED FOR COVERAGE UNDER THE MSCP

Scientific Name Common Name Status	Conserved <sup>3</sup> (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
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### 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.

<i>Passerculus sandwichensis rostratus</i> 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
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### 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 <sup>3</sup> (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
<i>Ammodramus savannarum</i> 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
<i>Agelaius tricolor</i> 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 <sup>3</sup> (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
<i>Plecotus townsendii</i> Townsend's western big-eared bat */SSC	Unknown/Insufficient data on distribution and life history.				NO
<i>Eumops perotis californicus</i> California mastiff bat */SSC	Unknown/Insufficient data on distribution and life history.				
<i>Perognathus longimembris pacificus</i> Pacific pocket mouse FE/SSC	Unknown/Only 3 to 4 known populations in Southern California. Insufficient data on distribution and life history.				NO
<i>Taxidea taxus</i> 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 <sup>3</sup> (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
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### 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.

<i>Felis concolor</i> 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
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### 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 <sup>3</sup> (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
<i>Odocoileus hemionus</i> <i>fuliginata</i> 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

<sup>1</sup>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.

<sup>2</sup>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 ratio (in-kind) for impacts if avoidance and minimization of impacts would result in no reasonable use of the property.

<sup>3</sup>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

\*= 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.