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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 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 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% of all habitat and vacant lands. The conserved lands within the City's MHPA total 53% of the vacant land in the City (61% of total habitat land in City). The City's MHPA preserves 77% of the core biological resource areas and 77% 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 (52,012 acres) within the City's subarea will be preserved for biological purposes. This is an overall average and in some cases 100% 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%) 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% of the parcel (75% 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

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 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
Figure 1

scrub, regenerating 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 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 areas supports prime examples of sensitive habitats of the coastal lowlands, such as high quality coastal sage scrub, maritime succulent scrub, wetlands, and 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 Interstate 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.

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 disjunct 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, 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 State Route 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% 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 Management Framework 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 Management Framework Plan.
- A19. Retain and enhance, where possible, existing riparian habitat along the Tijuana River.

Figure 2

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 willowy 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 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% 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, transplantation, or other mitigation measures will be determined at that time.

- B4. A condition of coverage for San Diego ambrosia requires 90% 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.

Figure 3

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 6 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.

Figure 4

- 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 Penasquitos 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 Penasquitos 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 Penasquitos Canyon Preserve in Mira Mesa, and from the coast to Interstate 15. The area encompasses the communities of Carmel Valley, Sorrento Hills, Torrey Pines, Rancho Penasquitos, a portion of Mira Mesa, the Via de la Valley Specific Plan area, and the entire 12,000-acre NCFUA. In addition, the area also includes Torrey Pines State preserve, the Los Penasquitos Lagoon, and Los Penasquitos 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 Penasquitos. 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. NCFUA Subarea 5 contains core habitat area on the Del Mar Mesa north of Los Penasquitos 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 Penasquitos Lagoon, and Los Penasquitos Canyon Preserve which are core biological resource areas with high to moderate habitat values. Los Penasquitos 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 Penasquitos 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 Penasquitos Lagoon from the east are tentative at best. In the south, a rip-rap channel winds west from Los Penasquitos 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 6-8 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 Penasquitos, 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 Penasquitos 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 Penquitos 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 Penasquitos 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 Penasquitos 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% 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 10-acre lots. No development except brush management Zone 2 should occur within 100 feet of the MHPA.

Figure 5

- 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 North City Future Urbanizing Area (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 must 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 Penasquitos 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 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% 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, including 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.

Figure 6

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 6 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 8 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 5 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).

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).

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 5 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;

Figure 8

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.

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 8 acres);
8. Area below the dam for the proposed sand and rock mining operation for aggregate materials for the dam expansion (approximately 33 acres, 5000 feet wide by 2800 feet long);
9. Right-of-way for the proposed reclaimed water pipeline from the North City Wastewater Treatment Plant into the reservoir (approximately 3 acres);
10. Existing employee residences;
11. Area sufficient for new boat launch and recreation facilities (10 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.
Figure 9

Figure 10

1.3 COVERED SPECIES LIST

Flora and Fauna Covered by the Multiple Species Conservation Program

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>DESIGNATION</u> (F/S/CNPS/RED)
Flora:		
<u>Acanthomintha ilicifolia</u>	San Diego thornmint	PE/SE/1B/232
<u>Agave shawii</u>	Shaw's agave	--/--/ 2/333
<u>Ambrosia pumila</u>	San Diego ambrosia	--/--/1B/322
<u>Aphanisma blitoides</u>	Aphanisma	--/S2/ 3/222
<u>Arctostaphylos glandulosa</u> var. <u>crassifolia</u>	Del Mar manzanita	FE/--/1B/332
<u>Arctostaphylos otayensis</u>	Otay manzanita	--/-- /1B/323
<u>Astragalus tener</u> var. <u>titi</u>	Coastal dunes milk vetch	F1/SE/1B/333
<u>Baccharis vanessae</u>	Encinitas Coyote brush	F1/SE/1B/233
<u>Brodiaea filifolia</u>	Thread-leaved brodiaea	PT/SE/1B/333
<u>Brodisea occuttii</u>	Orcutt's brodiaea	--/--/1B/132
<u>Calamagrostis (Satureja)</u> <u>densa</u>	Dense reed grass	--/--/4/122
<u>Calochortus dunnii</u>	Dunn's mariposa lily	--/SR/1B/222
<u>Caulanthus stenocarpus</u>	Slender-pod jewelflower	--/SR/--/---
<u>Ceanothus cyaneus</u>	Lakeside ceanothus	--/--/1B/322
<u>Ceanothus verrucosus</u>	Wart-stemmed ceanothus	--/--/ 2/121
<u>Cordylanthus maritimus</u> ssp. <u>maritimus</u>	Salt marsh bird's-beak	FE/SE/1B/222
<u>Cordylanthus orcuttianus</u>	Orcutt's bird's-beak	--/--/ 2/331
<u>Corethrogyne filaginifolia</u> var. <u>linifolia</u>	Del Mar sand aster	--/--/1B/323
<u>Cupressus forbesii</u>	Tecate cypress	--/--/1B/322
<u>Dudleya blochmaniae</u> ssp <u>brevifolia</u>	Short-leaved dudleya	--/SE/1B/333
<u>Dudleya variegata</u>	Variiegated dudleya	--/--/ 4/122
<u>Dudleya viscida</u>	Sticky dudleya	F1/--/1B/323
<u>Ericameria palmeri</u> ssp. <u>palmeri</u>	Palmer's ericameria	--/--/ 2/221
<u>Erysimum ammophilum</u>	Coast wallflower	--/--/ 4/123
<u>Eryngium aristulatum</u> spp. <u>parishii</u>	San Diego button-celery	FE/SE/1B/232
<u>Ferocactus viridescens</u>	San Diego barrel cactus	--/--/ 2/131
<u>Hemizonia conjugens</u>	Otay tarplant	PE/SE/1B/332
<u>Lepechinia cardiophylla</u>	Heart-leaved pitcher sage	--/--/1B/322
<u>Lepechinia ganderi</u>	Gander's pitcher sage	--/--/1B/312
<u>Lotus nuttallianus</u>	Nuttall's lotus	--/--/1B/332
<u>Mahonia (Berberis)</u> <u>nevinii</u>	Nevin's barberry	F1/SE/1B/333

<u>Monardella hypoleuca</u> ssp. <u>lanata</u>	Felt-leaved monardella	--/--/1B/223
<u>Monardella linoides</u> ssp. <u>viminea</u>	Willow monardella	PE/SE/1B/232
<u>Muilla clevelandii</u>	San Diego goldenstar	--/--/1B/222
<u>Navarretia fossalia</u>	Prostrate navarretia	--/--/1B/232
<u>Nolina interrata</u>	Dehesa bear-grass	F1/SE/1B/332
<u>Opuntia parryi</u> var. <u>serpentina</u>	Snake cholla	--/--/1B/332
<u>Orcuttia californica</u>	California Orcutt grass	FE/SE/1B/332
<u>Pogogyne abramsii</u>	San Diego mesa mint	FE/SE/1B/233
<u>Pogogyne nudiuscula</u>	Otay Mesa mint	F1/SE/1B/332
<u>Pinus torreyana</u> ssp. <u>torreyana</u>	Torrey pine (native populations)	--/--/1B/323
<u>Rosa minutifolia</u>	Small-leaved rose	--/SE/2/331
<u>Satureja chandleri</u>	San Miguel savory	--/--/4/122
<u>Senecio ganderi</u>	Gander's butterweed	--/SR/1B/323
<u>Solanum tenuilobatum</u>	Narrow-leaved nightshade	--/--/--/--
<u>Tetracoccus dioicus</u>	Parry's tetracoccus	--/--/1B/322

Fauna:

<u>Panoquina errans</u>	Saltmarsh skipper	--/--
<u>Mitoura thornei</u>	Thorne's hairstreak	--/S2
<u>Branchinecta</u> <u>sandiegoensis</u>	San Diego fairy shrimp	FE/--
<u>Streptocephalus woottonii</u>	Riverside fairy shrimp	FE/--
<u>Bufo microscaphus</u> ssp. <u>californicus</u>	Arroyo southwestern toad	FE/SSC
<u>Rana aurora</u> ssp. <u>draytoni</u>	California red-legged frog	FT/SSC
<u>Clemmys marmorata</u> ssp. <u>pallida</u>	Southwestern pond turtle	--/SSC
<u>Chemidophorus hyperythrus</u> ssp. <u>beldingi</u>	Orange-throated whiptail	--/SSC
<u>Phrynosoma coronatum</u> ssp. <u>blainvillei</u>	San Diego horned lizard	--/SSC
<u>Accipiter cooperii</u>	Cooper's hawk	--/SSC
<u>Agelaius tricolor</u>	Tricolored blackbird	--/SSC
<u>Aquila chrysaetos</u>	Golden eagle	--/SSC
<u>Aimophila ruficeps</u> ssp. <u>cancescens</u>	Southern california rufous- crowned sparrow	--/SSC
<u>Branta canadensis</u> ssp. <u>moffitti</u>	Canada goose	--/--
<u>Buteo swainsoni</u>	Swainson's hawk	--/ST

<u>Buteo regalis</u>	Ferruginous hawk	--/SSC
<u>Campylorhynchus</u>		
<u>brunneicapillus</u> ssp. <u>couesi</u>	Coastal cactus wren	PE/SSC
<u>Charadrius alexandrinus</u>		
ssp. <u>nivosus</u>	Western snowy plover	FT/SSC
<u>Charadrius montanus</u>	Mountain plover	--/SSC
<u>Circus cyaneus</u>	Northern harrier	--/SSC
<u>Egretta rufescens</u>	Reddish egret	--/--
<u>Empidonax traillii</u>		
ssp. <u>extimus</u>	SW. willow flycatcher	FE/SE
<u>Falco peregrinus anatum</u>	American peregrine falcon	--/ST
<u>Haliaeetus leucocephalus</u>	Bald eagle	FE/SE
<u>Numenius americanus</u>	Long-billed curlew	--/SSC
<u>Passerculus</u>		
<u>sandwichensis</u>	Belding's savannah	--/SE
ssp. <u>beldingi</u>	sparrow	
<u>Passerculus</u>		
<u>sandwichensis</u>	Large-billed savannah	--/SSC
ssp. <u>rostratus</u>	sparrow	
<u>Pelcanus occidentalis</u>		
ssp. <u>californicus</u>	California brown pelican	FE/SE
<u>Plegadis chihi</u>	White-faced ibis	--/SSC
<u>Polioptila californica</u>		
ssp. <u>californica</u>	California gnatcatcher	FT/SSC
<u>Rallus longirostris</u>		
ssp. <u>levipes</u>	Light-footed clapper rail	FE/SE
<u>Sialia mexicana</u>	Western bluebird	--/--
<u>Speotyto (Athene) cucularia</u>		
ssp. <u>hypugaea</u>	Burrowing owl	--/SSC
<u>Sterna elegans</u>	Elegant tern	--/SSC
<u>Sterna antillarum</u>		
ssp. <u>browni</u>	California least tern	FE/SE
<u>Vireo bellii</u> ssp. <u>pusillus</u>	Least Bell's vireo	FE/SE
<u>Taxidea taxus</u>	American badger	--/SSC
<u>Felis concolor</u>	Mountain lion	--/--
<u>Odocoileus hemionus fuliginata</u>	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% of the parcel, with 75% remaining as open space. When combined with the 100% preservation in negotiated areas on private lands, the approximately 94% preservation on publicly owned lands in the MHPA, and strategic acquisitions, the overall 90% 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.
3. 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% 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 can not be implemented on approval of the Plan, but will instead occur over the life of the 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 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 4 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 Penasquitos 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 Penasquitos 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 5-10 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 & 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:

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.
2. 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.

3. 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. Assess the need for access roads at the bottom of Dennery Canyon and its tributaries. Utilize to the extent possible utility maintenance and Border Patrol access roads as trail systems. Restore any roads determined not to be necessary to serve these functions, and any duplicate roads to the appropriate local native habitat(s).
2. Restore the Bentonite mine and bench area in Dennery Canyon to the appropriate local native habitat. Restoration may require topsoil importation which could be provided from the surrounding development areas at the time of grading, as these soils would also contain the appropriate local seedbank.

Northeast Otay Mesa

Priority 1:

1. Delineate the MHPA boundaries along areas of the mesa and slopes north of Brown Field with markers and signs to inform Brown Field employees, contractors, and other people of the boundaries of the MHPA to prevent disturbance of the area. This area should be made off-limits to illegal tilling of the mesas (except where required for brush management), dumping, storage of materials, and other disturbances. Fencing or other protection mechanisms will only be necessary if continued disturbance of these areas is evident.
2. Retain mesa areas which are currently non-native grasslands in order to allow regeneration or continue in their present state, thus providing needed raptor foraging area. If regeneration to coastal sage or other native habitats appears to be unbalancing the need for grassland areas in the future, assess these areas for management that would maintain a grassland (preferably native) community.

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.

Figure 11

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 vireo
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 7-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.

Tia Juana 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 multijurisdictional, 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 Management Framework for the Tijuana River Valley

The Management Framework document contains the conceptual framework for design and management of the County Park & 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 Management Framework 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 don't 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 Management Framework 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 Management Framework 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 Management Framework 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 Spooners 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 Spooners 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 CUP's.

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 transplanted 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
Willowy monardella

Animals

Burrowing owl
California gnatcatcher
California rufous-crowned sparrow
Cooper's hawk
Least Bell's vireo
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:

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.

2. Maintain and clearly demarcate trails around the visitors center and other areas of high public use to minimize habitat destruction.
3. Limit future equestrian trails to specified trails which minimize trail edge disturbances and are no greater than 25% gradient.
4. Seasonally restrict, if necessary, areas along the San Diego River, including riparian restoration areas (except along established trails) to prevent disturbance of breeding areas.
5. As envisioned by the Master Development Plan, revegetate areas with erosion or denuded slopes.
6. 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.
7. Minimize lighting for the campground and collect garbage frequently to reduce nuisance wildlife (raccoons, opossums, skunks).
8. 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:

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

Orcutt'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 vireo
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.

Figure 12

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.

Overall Management Policies and Directives

Where the MHPA's urban habitats are part of a natural resource park, the City Park & 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 Penasquitos 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 Penasquitos 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 Penasquitos 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
Encinitas 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 rufous-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
Southwestern pond turtle
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 Penasquitos Lagoon

Torrey Pines State Park and Los Penasquitos 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 Penasquitos Canyon Preserve Master Plan, and Management Plan

Los Penasquitos 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 Penasquitos 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' 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.

4. Provide periodic oversight of the golf course best management practices to control chemical overflows and urban runoff into the natural open space system.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.

Figure 13

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 & 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 & 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 Penasquitos 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 Penasquitos 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 Penasquitos Creeks in the Los Penasquitos 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 Penasquitos 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 about 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 & 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.
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'). 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'). 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.

Figure 14

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 have 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.

3. 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.
4. 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.
5. 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% of the parcel, plus 15% 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% 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% 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% development area of the proposed underlying OR-1-2 zone, no mitigation would be required for impacts to sensitive upland resources. The remaining 75% 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% 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%, 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% 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 it's 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

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