

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

Grading/Land Development

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

1.5 FRAMEWORK MANAGEMENT PLAN

1.5.1 Management Goals and Objectives

The habitat management aspect of the City of San Diego's MHPA is an important component of the MSCP, related to the goal of the Program. The overarching MSCP goal is to maintain and enhance biological diversity in the region and conserve viable populations of endangered, threatened, and key sensitive species and their habitats, thereby preventing local extirpation and ultimate extinction, and minimizing the need for future listings, while enabling economic growth in the region.

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

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

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

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

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

This section lists general management guidelines relevant to the entire City MHPA system, followed by specific guidelines and recommendations for each planned area of the MHPA, including the Otay Mesa area, the Otay River Valley, the Tijuana River Valley, the Eastern Area, Urban Areas, the Northern Area, Lake Hodges and the San Pasqual Valley, and the other Cornerstone Lands. Each area is unique in terms of its existing conditions, MHPA configuration, public or private ownership of land, the existence and location of sensitive species, and management needs.

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

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

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

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

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

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

1.5.2 General Management Directives

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

Mitigation

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

Restoration

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

Public Access, Trails, and Recreation

Priority 1:

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

7. Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, in order to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted, restrain pets on leashes.
8. Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.
9. Maintain equestrian trails on a regular basis to remove manure (and other pet feces) from the trails and preserve system in order to control cowbird invasion and predation. Design and maintain trails where possible to drain into a gravel bottom or vegetated (e.g., grass-lined) swale or basin to detain runoff and remove pollutants.

Litter/Trash and Materials Storage

Priority 1:

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

Priority 2:

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

Adjacency Management Issues

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

Priority 1:

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

Invasive Exotics Control and Removal

Priority 1:

1. Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, and prevention methods, to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.
2. Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available. If possible, it is recommended that removal begin upstream and/or upwind and move downstream/downwind to control re-invasion. Priorities for removal should be based on invasive species' biology (time of flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell's vireo. Avoid removal activities during the reproductive seasons of sensitive species and avoid/ minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment, and any other potentially harmful or impact-causing methodologies, to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.

Priority 2:

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

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

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

Flood Control

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

Priority 1:

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

Priority 2:

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

1.5.3 Specific Management Policies and Directives for the Otay Mesa Area

Background

Goals and Objectives

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

Covered Species

Covered species in this area include:

Plants

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

Animals

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

Major Issues

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

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

Overall Management Policies and Directives for Otay Mesa

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

Otay Mesa Community Plan

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

Other General Policies

Priority 1:

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

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

Priority 2:

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

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

Northwest Otay Mesa

Priority 1:

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

Priority 2:

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

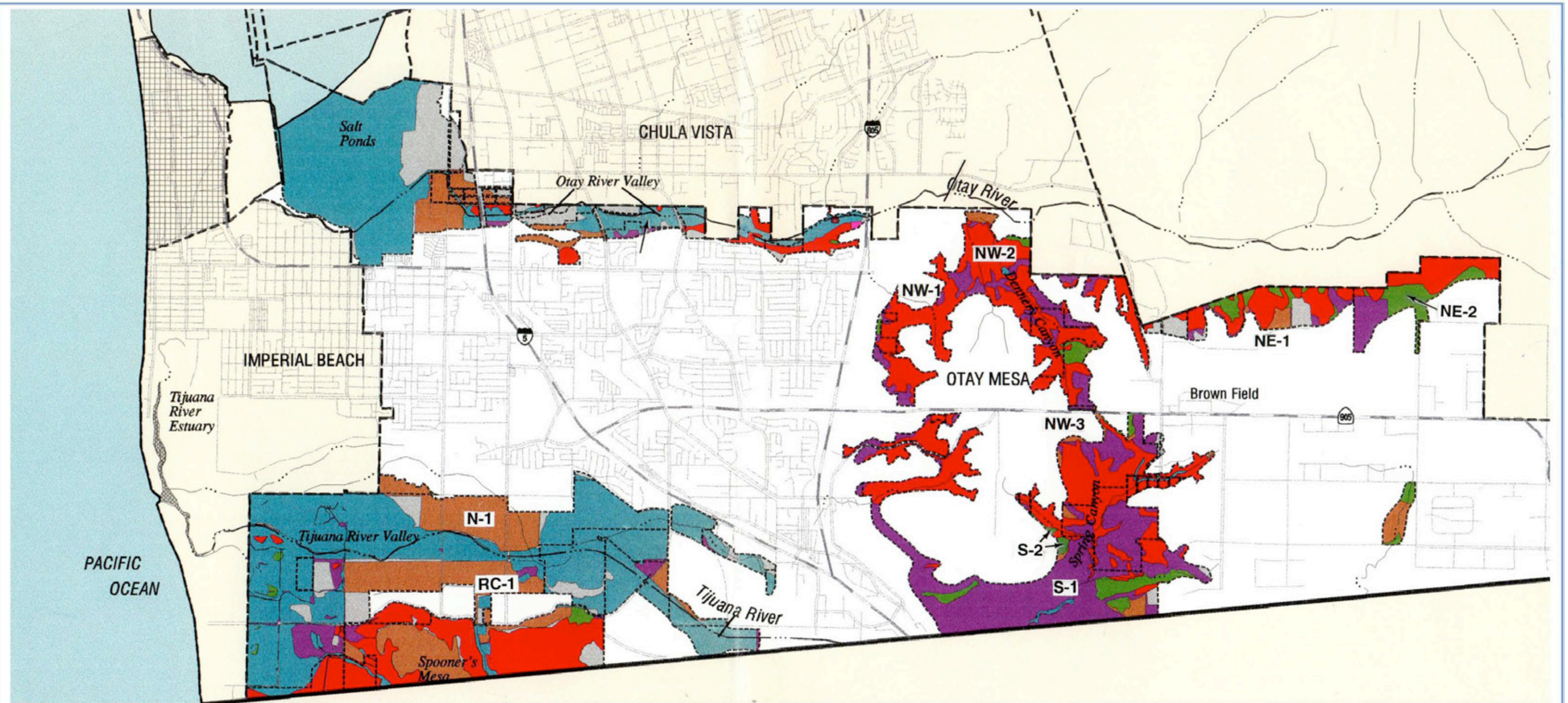
Southern Otay Mesa

Priority 1:

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

Priority 2:

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



Vegetation Communities

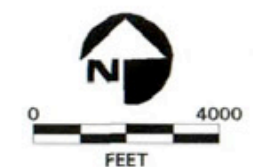
Coastal Sage Scrub	Oak Woodland
Chaparral	Coniferous Forest
Coastal Sage Scrub/Chaparral	Beach/Foredunes
Grassland	Eucalyptus Woodland
Riparian/Wetlands	Disturbed Habitat
	Shallow Bay

Number indicates reference in text.

Developed	Subarea Boundary
Agriculture	MHPA Boundary
	Water District
	Subarea
	Military Lands

Base Map Features

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



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

MSCP Subarea Plan

11

FIGURE

1.5.4 Specific Management Policies and Directives for the Otay River Valley

Background

Goals and Objectives

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

Covered Species

Covered species in the Otay River Valley include:

Plants

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

Animals

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

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

Major Issues

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

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

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

Overall Management Policies and Directives for the Otay River Valley

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

Otay Mesa-Nestor Community Plan and Update

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

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

Other General Policies

Priority 1:

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

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

West of I-5, Otay River Mouth Area

Priority 2:

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

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

I-5 to I-805

Priority 1:

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

Priority 2:

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

1.5.5 Specific Management Policies and Directives for the Tijuana River Valley

Background

Goals and Objectives

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

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

Covered Species

Covered species in the Tijuana River Valley include:

Plants

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

Animals

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

Major Issues

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

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

Overall Management Policies and Directives for the Tijuana River Valley

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

Tijuana River Valley Plan and Local Coastal Program

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

Tijuana River National Estuarine Sanctuary Management Plan

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

A Framework Management for the Tijuana River Valley

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

Other General Policies

Priority 1:

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

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

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

River Corridor

Priority 1:

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

Priority 2:

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

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

Mesa Areas

Priority 2:

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

Northern edge of valley

Priority 1:

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

Priority 2:

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

1.5.6 Specific Management Policies and Directives for the Eastern Area

East Elliott and Mission Trails Regional Park

Background

Goals and Objectives

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

Covered Species

Covered Species in the Eastern Area include:

Plants

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

Animals

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

Major Issues

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

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

Overall Management Policies and Directives for the Eastern Area

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

Mission Trails Regional Park Master Plan

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

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

Elliott Community Plan

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

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

Mission Trails Regional Park

Priority 1:

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

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

Priority 2:

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

East Elliott

Priority 1:

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

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

1.5.7 Specific Management Policies and Directives for Urban Habitat Lands

Background

Goals and Objectives

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

Covered Species

Covered species found in the urban habitat lands include:

Plants

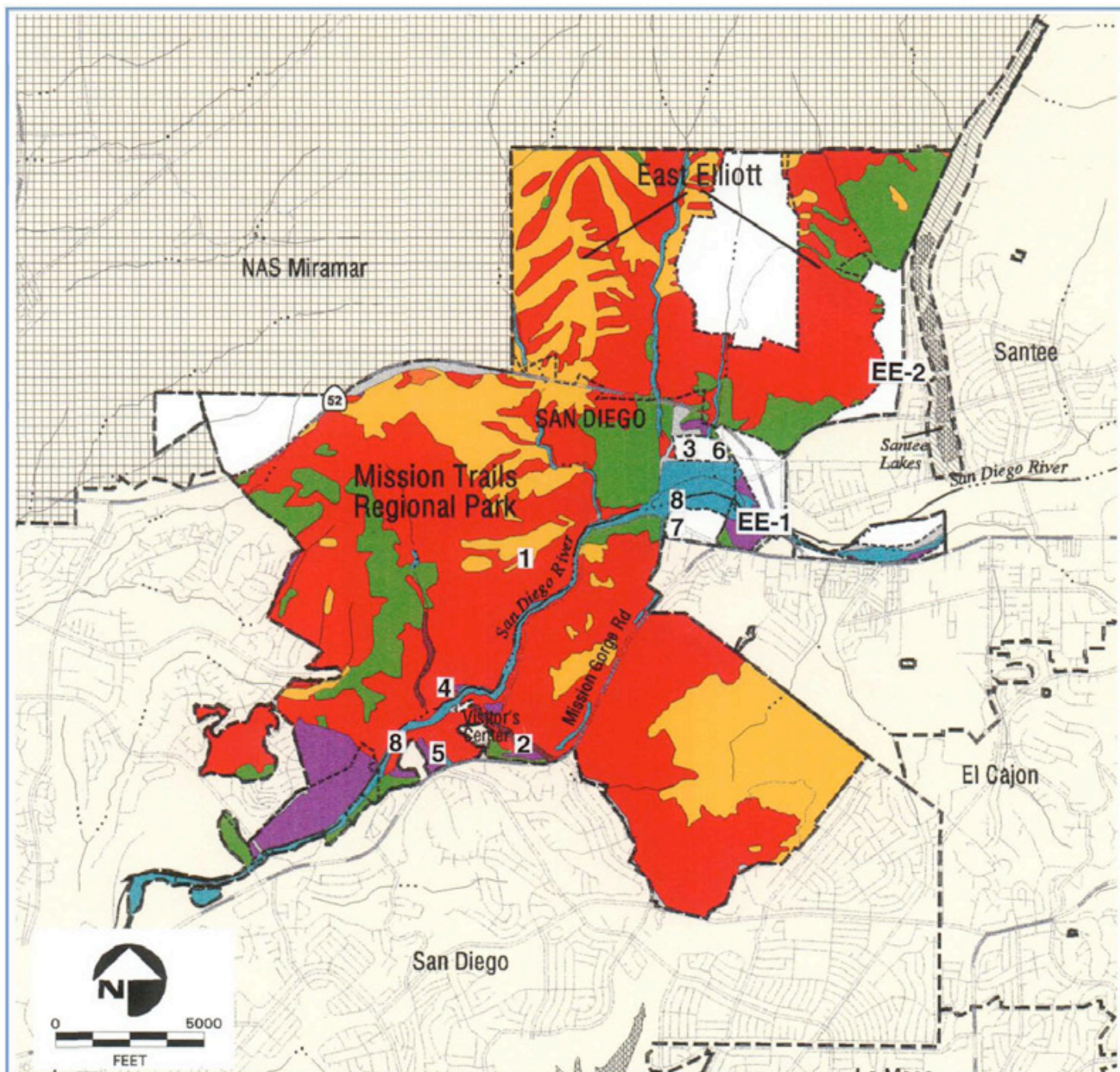
Orcut’s brodiaea
San Diego barrel cactus
San Diego button-celery
San Diego goldenstar
Short-leaved dudleya
Snake cholla
Wart-stemmed ceanothus
Willow monardella

Animals

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

Major Issues:

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



Vegetation Communities

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

Number indicates reference in text.

Base Map Features

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



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

MSCP Subarea Plan

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FIGURE

Overall Management Policies and Directives

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

1.5.8 Specific Management Policies and Directives for the Northern Area

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

Background

Goals and Objectives

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

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

Covered Species

Covered species in the northern area include:

Plants

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

Animals

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

Major Issues

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

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

Overall Management Policies and Directives

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

The North City Future Urbanizing Area (NCFUA) Framework Plan

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

San Dieguito River Park Concept Plan

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

Torrey Pines State Park and Los Peñasquitos Lagoon

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

Mira Mesa Community Plan

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

Torrey Pines Community Plan

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

Los Peñasquitos Canyon Preserve Master Plan, and Management Plan

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

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

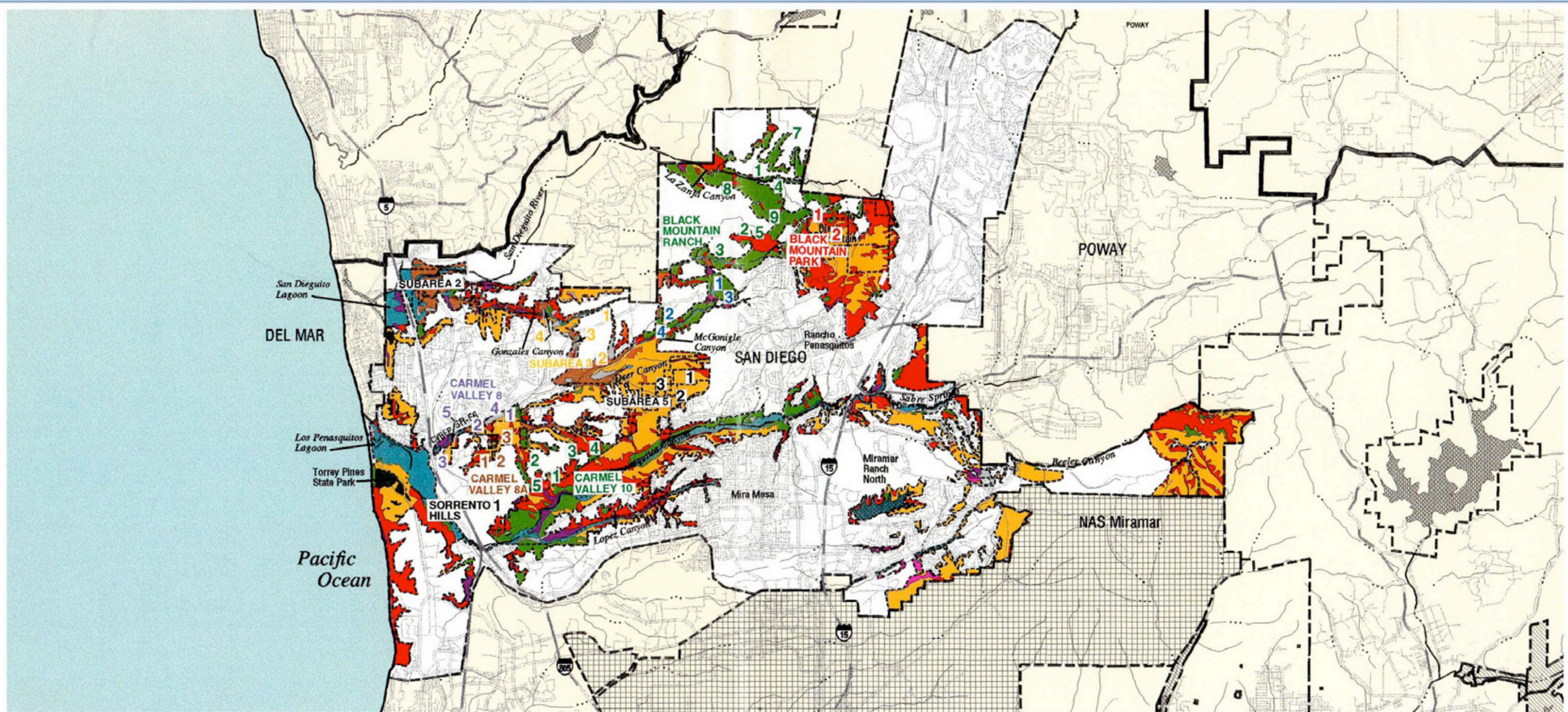
The following policies and directives for the northern area are described in the following text, generally from north to south and east to west.

North City Future Urbanizing Area:

Black Mountain Ranch/NCFUA Subarea 1

Priority 1:

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



Vegetation Communities

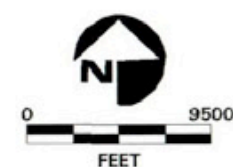
Coastal Sage Scrub	Oak Woodland	Developed
Chaparral	Coniferous Forest	Agriculture
Coastal Sage Scrub/Chaparral	Beach/Foredunes	
Grassland	Eucalyptus Woodland	
Riparian/Wetlands	Disturbed Habitat	
	Shallow Bay	

Number indicates reference in text.

Subarea Boundary
MHPA Boundary
Water District
Subarea
Military Lands

Base Map Features

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



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

MSCP Subarea Plan

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FIGURE

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

Priority 2:

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

Black Mountain Park Area

Priority 1:

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

NCFUA Subarea 4

Priority 1:

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

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

Priority 2:

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

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

NCFUA Subarea 5

Priority 1:

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

Priority 2:

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

NCFUA Subarea 3

Priority 1:

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

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

Priority 2:

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

NCFUA Subarea 2: San Dieguito River Mouth and Lagoon Area

Priority 2:

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

Carmel Valley: Carmel Valley Neighborhood 10

Priority 1:

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

Priority 2:

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

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

Carmel Valley Neighborhood 8 and CVREP Area

Priority 1:

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

Priority 2:

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

Carmel Valley Neighborhood 8A

Priority 1:

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

Priority 2:

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

Sorrento Hills

Priority 1:

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

Torrey Pines Community

Priority 2:

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

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

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

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

Priority 2:

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

Beeler Canyon and Adjacent Areas

Priority 2:

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

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

Background

Goals and Objectives

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

Covered Species

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

Plants

Encinitas baccharis
San Diego barrel cactus
Wart-stemmed ceanothus

Animals

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

Major Issues

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

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

Overall Management Policies and Directives

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

San Pasqual Valley Plan Policies

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

San Dieguito River Park Concept Plan

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

Other General Policies

Priority 1:

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

Priority 2:

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

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

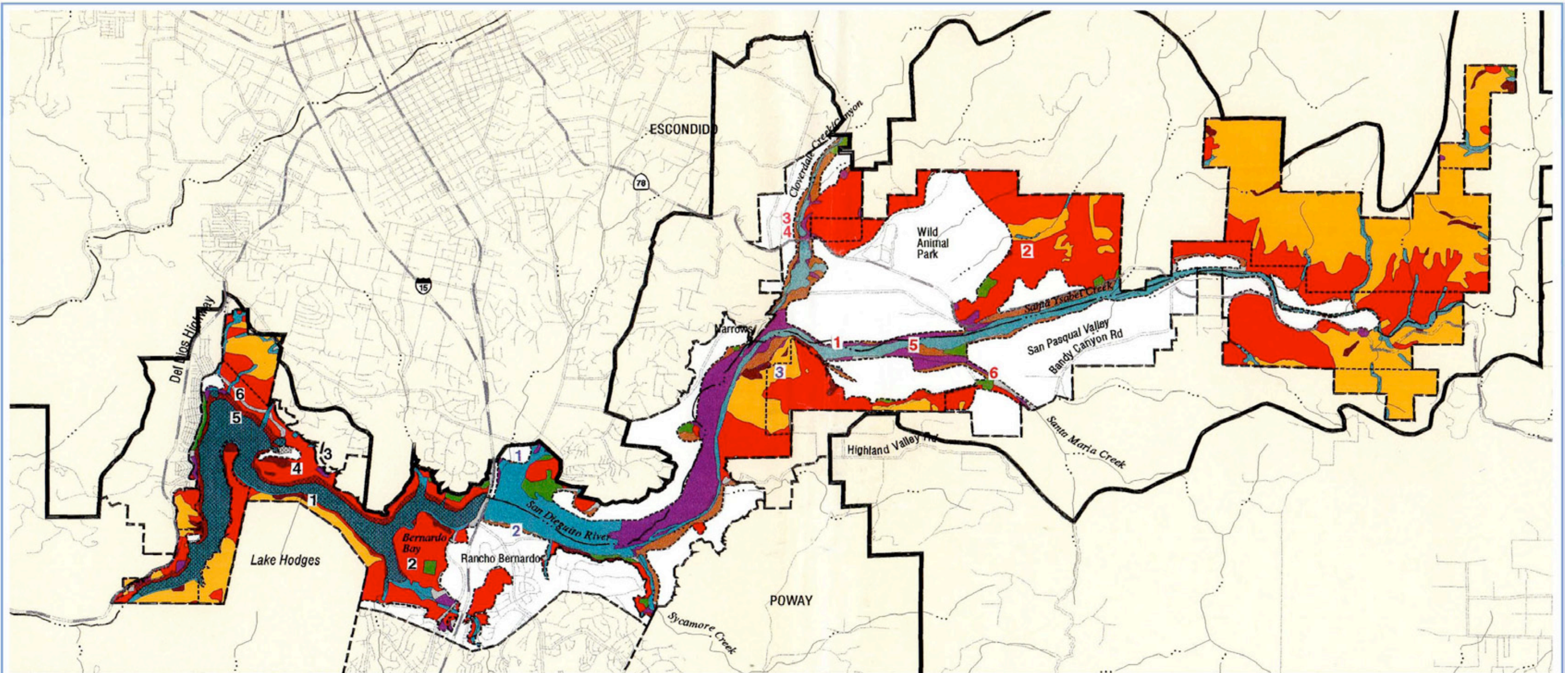
West of I-15

Priority 1:

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

Priority 2:

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



Vegetation Communities

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

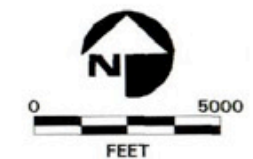
Number indicates reference in text.

Developed
Agriculture

Subarea Boundary
MHPA Boundary
Water District
Subarea
Military Lands

Base Map Features

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



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

MSCP Subarea Plan

14

FIGURE

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

East of I-15 to Narrows

Priority 1:

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

Priority 2:

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

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

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

Narrows to eastern end of Valley

Priority 1:

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

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

Priority 2:

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

1.5.10 Specific Management Policies and Directives for the Other Cornerstone Lands

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

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

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

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

1.5.11 Vernal Pool Management Guidelines

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

1.5.12 Fire Management Guidelines

Background

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

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

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

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

1.5.13 Monitoring Plan

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

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

1.5.14 Research Opportunities for the Academic and Professional

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

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

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

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

1.6 PROTECTION OF RESOURCES

1.6.1 Interim Protection

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